



How the European Union's Sustainability Directives Are Shaping Procurement in the Engineered Wood Products Sector

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Abstract

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<p>The influence of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) on procurement procedures in the engineered wood products sector is examined in this thesis. By using Company X as a case study, the thesis shows how these overlapping EU directives change procurement strategies by making compliance more difficult, making operations more complex, and necessitating sustainable, traceable sourcing.</p> <p>Through a mixed-methods approach that combines stakeholder interviews with financial data analysis, the study finds that CSRD and CSDDD put pressure on businesses to deepen supplier engagement, integrate digital ESG reporting tools, and modernize procurement systems, especially with regard to Scope 3 emissions and forest certification standards. These adjustments bring long-term benefits in efficiency, resilience, and stakeholder trust, despite the fact that they also raise short-term expenses and operational difficulties.</p> <p>This thesis is unique because it applies CSRD and CSDDD to procurement in a sector-specific manner, which is not well covered in the scholarship that is currently available. By connecting supply chain strategy, stakeholder theory, and sustainability reporting, the findings advance our knowledge of how legal sustainability frameworks are changing corporate procurement. The study ends by offering suggestions on how businesses might proactively match procurement with EU sustainability requirements, with a focus on cooperation, openness, and digital innovation.</p>
Key words CSRD, CSDDD, sustainable procurement, engineered wood products, Scope 3 emissions, double materiality, stakeholder theory, EU directives

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1 Introduction

Sustainability is becoming a strategic necessity and a legal obligation in the European Union (EU) due to the quickly changing business environment of today. This thesis examines the relationship between procurement practices and the EU's Corporate Sustainability Reporting Directive (CSRD), with a particular emphasis on the market for engineered wood products. The topic's rising relevance in light of EU regulatory developments and the mounting demand on companies to align their operations with sustainability targets make it a topic of great interest.

Formally known as Directive 2022/2464/EU, the CSRD requires extensive sustainability disclosures and has a big impact on how businesses operate, particularly how they buy. It is becoming more widely acknowledged that procurement plays a critical role in accomplishing sustainability objectives, enhancing long-term strategic alignment, and guaranteeing operational effectiveness and compliance. Although the Corporate Sustainability Due Diligence Directive (CSDDD) is the primary regulatory focus of this thesis, the CSRD is also thought to offer a comprehensive perspective of the changing regulatory landscape.

1.1 Background

The author's academic emphasis on supply chain management and sustainability, along with her present work experience in procurement and invoicing in the engineered wood products sector, served as inspiration for the thesis topic selection. The author gained operational insights and internal access to some stakeholders as a result of this job at Company X, which enhanced the empirical study. For the purposes of accountability and to draw attention to any potential bias issues, this access is recognized.

Real-world examples must be examined in order to comprehend the CSRD's wider effects on procurement. The building and construction firm Skanska, for example, has made significant strides in modifying its procurement procedures to adhere to the Directive. They place a strong emphasis on transparency and accountability by requesting comprehensive information from its suppliers about their sustainability policies, including emissions, waste management, and resource usage (Skanska Group 2025; Skanska UK 2021.) For analyzing the wider effects of the CSRD on procurement procedures, such instances provide insightful background.

Company X, a significant participant in the engineered wood products industry, is the focus of this thesis. Through examining the impact of the CSRD on Company X's procurement processes, the study seeks to promote the adoption of sustainable supply chain practices and advance the UN

Sustainable Development Goals (SDGs) agenda. Particularly, the study supports SDGs 13 (Climate Action), 17 (Partnerships for the Goals), and 12 (Responsible Consumption and Production).

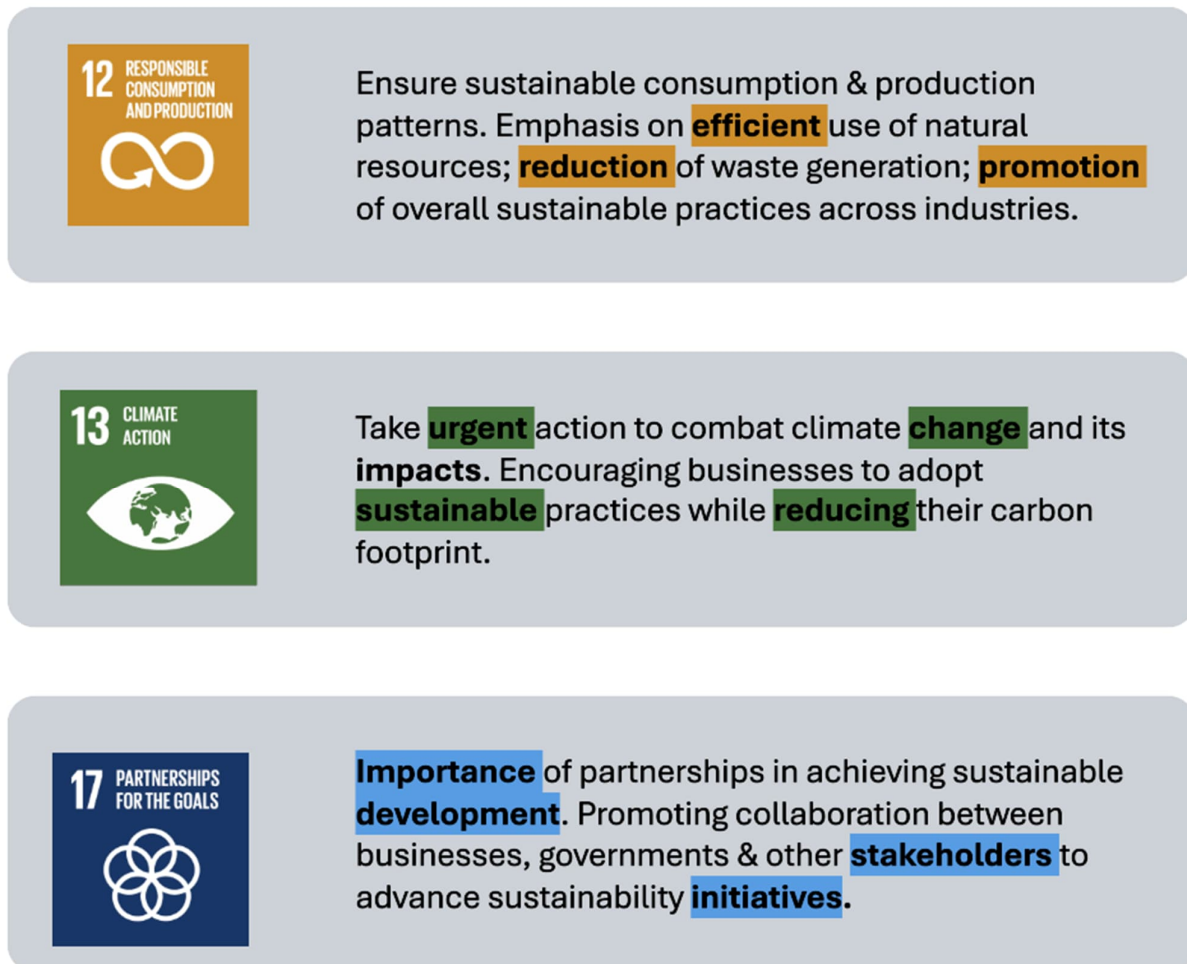


Figure 1, Explanations of SDGs, implemented from the United Nations' website for SDGs (United Nations. (n.d.-a-c).

The specific and relevant targets under each SDG (see Figure 1 above) will be explored and discussed in detail throughout the thesis to highlight their connection to sustainability reporting practices and sustainable procurement strategies.

1.2 Research Question and Objectives

Not only is procurement essential for operations, but it also serves as a tool for long-term planning and environmental stewardship. The purpose of this study is to better understand how procurement strategy and efficiency are impacted by sustainability reporting requirements. By doing this, it

adds to the body of knowledge regarding sustainable supply chain management and provides useful advice for businesses adjusting to new regulations.

The Corporate Sustainability Reporting Directive (CSRD) is the main subject of this thesis, but as a supplementary legislative development, the Corporate Sustainability Due Diligence Directive (CSDDD) is also covered. Because of its emphasis on stakeholder due diligence and human rights risk assessment, the CSDDD is anticipated to have a substantial impact on supply chain and procurement processes. By including both directives, a more comprehensive comprehension of the changing EU regulatory environment and its consequences for sustainable procurement is made possible.

Research question (later RQ), which this study will answer to, is: *How does the Corporate Sustainability Reporting Directive (CSRD) influence the efficiency and sustainability of procurement processes in the engineered wood products industry?*

To comprehensively address this research question, the thesis will be structured around the following four investigative questions (IQs):

IQ1: What are the key requirements of the CSRD for procurement? With this question, the author aims to identify the specific obligations and standards set by CSRD that procurement processes must adhere to. Understanding these mandates is essential for assessing how the Directive modifies procurement practices while complying with it and advancing sustainability in the engineered wood products industry.

IQ2: How does the implementation of CSRD affect procurement costs and investments at Company X? This question explores the financial effects of CSRD compliance, including advancements to procurement costs and required investments. A better understanding of the economic sustainability of these practices will be through an analysis of the Directive's impacts, which will aid in determining if the CSRD improves or reduces the effectiveness of procurement processes.

IQ3: How can strategies aligning with CSRD support sustainability while improving long-term planning and operational efficiency? This question takes into consideration strategic approaches that can be feasible to align procurement processes with CSRD requirements. Finding methods that enhance operational efficiency, and sustainability will indicate how the Directive can be used to achieve long-term business targets, addressing both the efficiency and sustainability components of the RQ.

IQ4: What challenges and opportunities arise from aligning procurement practices with CSRD at Company X? The author intends to discuss the practical and realistic constraints, and

potential advantages of CSRD implementation into procurement processes with this question. Acknowledging and evaluating these opportunities and challenges will provide insights into the concrete effects of CSRD compliance. Thus, one can have a thorough understanding of the Directive's general impact, addressing areas for improvement and potential benefits.

To ensure a systematic and structured approach, Table 1 depicts an overlay matrix connecting the investigative questions with the knowledge base, research methods, interview questions used to answer the IQs, and outcomes of the thesis. This matrix will help the reader understand how each component of the thesis aligns with the overall research objectives.

Table 1, Overlay Matrix

Investigative Question	Knowledge base	Research Methods	Measurement Questions	Expected Results	Results
IQ1.	Literature on CSRD, EU Regulations, other sustainability standards	Desktop, literature review, interviews	Appendices 1-2: Q1-2 & 4. Appendix 3: Q1	Detailed understanding of CSRD requirements for procurement	Chapters 3, 7.1, and 8.1
IQ2.	Case study, financial reports, industry analysis	Case study, data analysis, financial statement analysis, interviews, desktop	Appendices 1-2: Q3 & 5. Appendix 3: Q4-5.	Analysis of cost impacts and investment changes due to CSRD implementation	Chapters 6 and 7.2
IQ3.	Sustainable procurement strategies, ESG criteria, SCM literature	Literature review, interviews, desktop	Appendices 1-2: Q4 & 6. Appendix 3: Q3 & 6.	Identification of strategic benefits and improvements in planning and efficiency	Chapters 7.3 and 8.2
IQ4.	Risk management, stakeholder theory, compliance challenges	Case study, literature review, desktop	Appendices 1-2: Q6-7. Appendix 3: questions Q2-3.	Insights into challenges and opportunities from CSRD compliance	Chapters 7.4 and 8.3

1.3 Significance of the Study

For manufacturing companies navigating CSRD compliance, this thesis is useful, particularly for those in the forestry and engineered wood industries. An excellent starting point for analyzing the function of procurement in environmental reporting and regulatory compliance is provided by Company X and its larger group's well-known creative and proactive sustainability initiatives.

Stakeholder accountability, transparency, and the strategic incorporation of sustainability into procurement are all emphasized by the CSRD and CSDDD together. These guidelines encourage businesses to provide comprehensive sustainability disclosures, which in turn encourages operational changes and closer supplier cooperation. Future studies that attempt to connect procurement and sustainability performance may benefit from this research's influence on organizational decision-making, policy creation, and other areas (Tolson Consulting 2025; Sourcing Champions 2024.)

Companies and their suppliers will need to collaborate and work together even more as a result of supply chain transparency, which tends to strengthen and create more transparent partnerships. The CSRD seeks to unify sustainability reporting throughout the EU to facilitate regulatory uniformity and enable politicians and policymakers to develop effective sustainability policies (Onventis 2025). This standardization will facilitate regulatory alignment, making it easier for businesses to comply with sustainability regulations. Over time, this will lead to more consistent and comparable sustainability data, enabling policymakers to make informed decisions and develop effective sustainability policies (EY 2025).

The findings of this research project could potentially have significant impacts on industry practices and policies. Increased accountability and transparency in business operations are just one of the results of CSRD's requirement for thorough sustainability reporting. This will work as a great catalyst for businesses to adopt more sustainable practices, placing their operations into compliance with legal and stakeholder demands (ADEC Innovations 2025). The directive will also promote innovation in sustainable technologies and practices, transforming industry standards and making sustainability a core component of business operations (Infiniti Research 2024).

From a professional standpoint, the thesis advances the author's knowledge of sustainable procurement and regulatory compliance. Future positions in supply chain transformation, sustainable sourcing, and ESG strategy are made easier by it. The study's findings should also be useful to academics, businesses, and politicians getting ready to deploy CSRD and CSDDD.

1.4 Scope and Limitations

This thesis investigates the effects of the Corporate Sustainability Reporting Directive on procurement processes in the engineered wood products sector. The impact of CSRD on environmental standards, procurement efficiency, and long-term strategic planning is researched in detail. Additionally, as mentioned before, Company X is the subject of the study to provide insightful information and an empirical evaluation of an industry-leading company's practices. The requirements of CSRD, its impact on procurement costs and investments, and the opportunities and challenges associated with its successful implementation serve as key topics of research. The thesis strives to increase knowledge of sustainable procurement practices and industry-wide regulatory compliance. The hypothesis of this thesis is as follows: *Operational efficiency in the engineered wood products sector is increased when procurement processes are in line with the Directive, which tends to improve overall compliance with sustainability targets and legal obligations.*

This research project has a number of limitations that must be acknowledged. First, the study's scope is restricted to the engineered wood products industry, which will limit the applicability of the findings. A comparison with other sectors in the manufacturing industry with similar sustainability reporting standards and legal obligations will be included in Chapter 7 – Extending Beyond the Engineered Wood Products Sector – to overcome this limitation and simultaneously offer a broader perspective of the research findings. Second, even if the case study method provides detailed insights, it might not fully represent the vast range of procurement strategies used by different types of businesses and organizations despite operating in the same industry. To compensate for this, literature research and secondary data analysis will be used to add more information from businesses in the same, or comparable, industries.

Third, biases and a lack of accuracy may result from the use of secondary data sources and interviews. Several data sources and techniques (triangulation) will be used to address potential biases, combining surveys, internal reports, and external data sources to enhance the reliability and validity of the results of the research. Furthermore, the findings could become outdated as new changes take place due to the dynamic nature of environmental reporting demands and legal frameworks. Since this study is a bachelor's thesis, it will be impossible to keep this current and adaptable to future changes by updating this on a regular basis and monitoring continuously. Thus, the third limitation is, unfortunately, inevitable.

Lastly, the thesis's thoroughness may be impacted by time and resource constraints that limit the scope of data collection and analysis. Leveraging digital tools and platforms to streamline data collection and analysis processes, as well as collaborating with industry experts, academic institutions, and professional organizations, will help to overcome these limitations. As the author works

for the case study's company, it will be easier to get in touch with colleagues from the company and third-party representatives such as the KPMG, which happens to be Group's external auditing organization. The research's credibility will be increased and a basis for future studies to build upon will be established by transparently disclosing the limitations of research and discussing how they were resolved or managed.

1.5 Key Concepts

The following key concepts are important for the reader to understand the relationship between sustainability reporting frameworks and procurement practices. Each concept will be referenced throughout the thesis as part of the theoretical framework.

Together, these interrelated ideas support the broader research framework by providing a methodical way to analyzing how CSRD affects procurement processes. While regulatory compliance and sustainable procurement ensure that businesses comply with the Directive's criteria, CSRD is the one that establishes the framework of the regulation. Lastly, an analysis of procurement costs and investments offers insights into the economic impacts that CSRD has,

1.5.1 Corporate Sustainability Reporting Directive (CSRD)

A directive of the European Union, forcing "large companies and listed companies to publish regular reports on the social and environmental risks they face - - and on how their activities impact people and the environment". With this directive, investors, NGOs (non-governmental organizations), consumers, and other stakeholders can evaluate and discuss companies' sustainability better as a part of the European green deal. First companies subject to the CSRD will be applying the new set of rules in the fiscal year 2024, publishing reports in 2025. An independent body, EFRAG (European Financial Reporting Advisory Group), developed the European Sustainability Reporting Standards (ESRS) that the CSRD will be done in accordance with (European Commission n.d.). The Directive influences procurement practices by requiring companies to report on their environmental impacts, including supply chain transparency and resource efficiency.

1.5.2 Corporate Sustainability Due Diligence Directive

A regulatory initiative called the Corporate Sustainability Due Diligence Directive (CSDDD) was created by the European Commission to impose legally binding duties on businesses to recognize, stop, and decrease negative effects on human rights and the environment along their value chains. CSDDD, in contrast to voluntary sustainability frameworks, requires companies to engage with stakeholders, set up plans for climate transition, and provide access to remedies in cases where harm occurs. It also requires that due diligence procedures be integrated into core business

operations, especially procurement (European Commission n.d.; Deloitte 2024; KPMG 2024a). Both large EU-based businesses and some non-EU businesses with sizable operations within the EU subject to this directive. The requirement for upstream and downstream risk assessments, complaint procedures, and corrective actions strengthens corporate accountability and ethical governance standards, turning procurement into a strategic compliance activity.

1.5.3 Double Materiality

A key reporting concept under CSRD is double materiality, which describes the two-way lens that businesses must use to evaluate and report on sustainability-related impacts. It has two dimensions:

- Financial materiality: how a company's financial performance is impacted by environmental, social and governance aspects.
- Impact materiality: how the business's activities affect society and environment (Paia Consulting 2023; PwC 2024a; Synesgy 2024.)

This two-way perspective guarantees that reporting on sustainability considers the requirements of stakeholders as well as legal requirements. Double materiality, particularly when in line with frameworks like the Global Reporting Initiative (GRI) and European Sustainability Reporting Standards (ESRS), allows businesses to create more thorough and decision-useful disclosures, claims PwC (n.d.-b). It is fundamental to comprehending corporate responsibility under CSRD and CSDDD, especially when it comes to value chain evaluations and procurement.

1.5.4 Sustainable Procurement

Choosing suppliers while taking social, ethical, and environmental issues into consideration and seriously is known as sustainable sourcing. Businesses confront more risks as supply chains grow internationally, especially in developing countries, including supply disruptions, price fluctuation, harm to their reputation, and difficulties with legal compliance. To improve risk management and meet stakeholder expectations, many businesses incorporate sustainable practices into their procurement processes. Enhancing environmental, social and ethical performance is meant to build sustainable, mutually beneficial relationships with suppliers. This strategy has come to be as a key aspect of the corporate responsibility, promoting competitive advantages and complementing broader business strategies (EcoVadis n.d.). Sustainable procurement keeps companies' sourcing decisions aligned with sustainability goals, considering environmental and social impact through the supply chain.

1.5.5 Operational Efficiency in Procurement

The art of optimizing resources, systems and processes to maximize output while minimizing waste, expense, and effort. Its key objectives are to minimize waste of time, improve the usage of equipment, and preserve quality while increasing output. Streamlining processes, embracing data-driven decision-making, and reducing inefficiencies are how businesses can accomplish operational efficiency. Mitigating risks and enhancing responsiveness in dynamic contexts are also essential aspects of it. Cost control, competitiveness, and providing stakeholders with steady value all depend on this concept (Allocator 2024; Jeong & Phillips 2001). Operational efficiency in procurement highlights resources optimization, waste reduction, and cost-effectiveness, which directly aligns with sustainability reporting goals.

1.5.6 Engineered Wood Products Industry

The engineered wood products industry is the manufacturing and distribution of composite wood materials, typically made by using adhesives to join wood strands, particles, fibres, or veneers. When compared to traditional solid wood, these products offer more strength, stability, and consistency while enhancing the natural characteristics of wood. Cross-laminated timber (CLT), laminated veneer lumber (LVL), medium-density fiberboard (MDF), plywood, and oriented strand board (OSB) represent significant types. (Puuinfo n.d.) Increased strength and durability, application diversity, economic effectiveness, and environmental friendliness are just some of the benefits to consider. Usage includes flooring, cabinets, furniture, and construction. Industry trends place an intense focus on market expansion, innovation, and sustainability. (Timber Development UK n.d.) This concept is essential to understanding how sustainability reporting requirements affect procurement procedures in this industry since it emphasizes how the industry contributes to present-day construction and production via providing solutions combining the attractiveness of wood with improved performance attributes.

1.5.7 Scope 1, 2, and 3 Emissions

To define the source and control of emissions throughout a company's operations and value chain, greenhouse gas (GHG) emissions are divided into three different scopes under the globally accepted Greenhouse Gas Protocol (GHG Protocol):

- Scope 1 comprises direct emissions from sources that are under the company's ownership or control, such as emissions from on-site combustion operations, company-owned cars, or manufacturing facilities.
- Scope 2 includes indirect emissions from the production of steam, heating, cooling, or electricity that the reporting company purchases.

- All other indirect emissions that happen outside of an organization's direct control fall under scope 3, including upstream and downstream activities like purchasing goods and services, employee commuting, business travel, waste disposal, product use, and raw material transportation (GHG Protocol n.d.; PwC 2023; PwC n.d.-b; KPMG 2023).

PwC (2024) and KPMG (2023) state that, although more difficult to measure, Scope 3 emissions often account for the largest portion of a company's overall carbon footprint, particularly in industries with intricate global supply chains like manufacturing, consumer goods, and forestry. Under CSRD and CSDDD, companies are now required to actively measure, assess, and reduce Scope 3 emissions in addition to disclosing Scope 1 and 2 emissions (Ellen MacArthur Foundation n.d.-e; Paia Consulting 2023.) These requirements strengthen the role of procurement in sustainability reporting because, since supplier emissions and lifecycle impacts fall within Scope 3 boundaries that align with the GHG Protocol, organizations can ensure consistency, transparency, and comparability in their emissions reporting, meeting the expectations of investors, regulators, and other stakeholders.

2 Overview of Corporate Sustainability Reporting and Due Diligence

This chapter reviews the literature on the Corporate Sustainability Reporting Directive (CSRD, Directive 2022/2464/EU) and the Corporate Sustainability Due Diligence Directive (CSDDD, COM/2022/71), two important EU directives that have an impact on corporate sustainability. The evaluation incorporates scholarly works, policy studies, and institutional recommendations from several sources, including the Global Reporting Initiative, KPMG, EFRAG, and the European Commission.

Corporate responsibility and environmental governance have undergone a fundamental change as a result of recent regulatory reforms. Large corporations and listed entities now have more requirements for sustainability reporting under the CSRD, which supersedes the previous Non-Financial Reporting Directive (NFRD, Directive 2014/95/EU). The CSDDD, which is a supplement to the CSRD, creates required due diligence obligations for human rights and the environment throughout all firm value chains (European Union 2022; European Commission n.d.)

The differences between the NFRD and the more extensive CSRD, as well as the additional due diligence requirements brought about by the CSDDD, are highlighted in the comparison chart above. The CSDDD furthers the EU's sustainability agenda by mandating that businesses actively identify and mitigate environmental and human rights impacts across their entire value chains, whereas the CSRD greatly broadens the scope and depth of sustainability reporting through mandatory ESG disclosures, third-party assurance, and digital reporting formats. These directives work together to improve corporate sustainability performance's openness, dependability, and comparability while integrating accountability and responsibility into company practices both inside and outside of the European Union.

2.1 Implementation Requirements and Schedules

The European Sustainability Reporting Standards (ESRS), created by the European Financial Reporting Advisory Group (EFRAG), are in line with the comprehensive reporting requirements introduced by the CSRD. These standards mandate disclosures on biodiversity impact, resource use, circular economy practices, greenhouse gas (GHG) emissions (Scopes 1, 2, and 3), and corporate governance initiatives pertaining to sustainability (EFRAG, 2023; KPMG, 2024c). Sustainability reports must undergo independent assessment and assurance by third parties to guarantee the quality and dependability of the information supplied.

A new age of uniformity and comparability in non-financial reporting is heralded by the CSRD, which is as significant as the International Financial Reporting Standards (IFRS) adoption in 2001.

Businesses are compelled to include sustainability into their corporate objectives, define social and climate goals, recognize and control sustainability risks, and report on significant key performance indicators (KPIs) (KPMG, 2024c, Silvola et al. 2024).

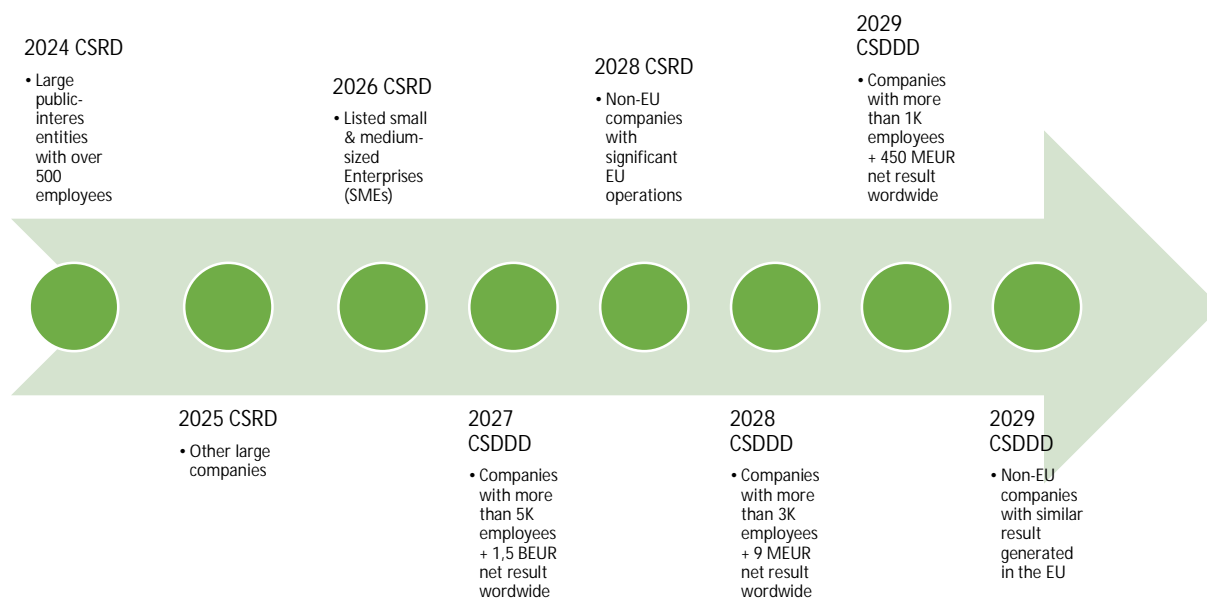


Figure 2, CSRD Timeline (Directive on Corporate Sustainability Reporting 2022/2464/EU).

Both directives are being implemented gradually to minimize disruptions and give businesses time to adapt to their new legal responsibilities. Figure 2 shows the progressive implementation, while Table 2 compares the NFRD, CSRD, and CSDDD based on key regulatory characteristics like scope, materiality, and assurance.

Table 2, Comparison of CSRD & CSDDD to NFRD, adapted from Directive on Non-Financial Reporting 2014/95/EU; Directive on Corporate Sustainability Reporting 2022/2464/EU; Directive on Corporate Sustainability Due Diligence COM/2022/71.

Aspect	NFRD	CSRD	CSDDD
Scope	Large public-interest entities (PIEs) with over 500 employees.	All large companies & companies listed on EU-regulated markets (incl. listed SMEs).	EU-based companies with >1000 employees + 450 MEUR turnover; non-EU companies with activity in EU.
Reporting Requirements	Environmental, social & employee matters: respect for human rights, anti-corruption and bribery.	Detailed reporting on a wide range of ESG factors: climate change, pollution, water & marine resources, biodiversity, circular economy etc.	Due diligence obligations: policies, risk identification, stakeholder engagement, climate plans.
Assurance	No mandatory third-party assurance.	Mandatory third-party assurance of sustainability information.	Internal oversight & public reporting of due diligence effectiveness.
Double Materiality	Not explicitly required.	Explicitly requires reporting considering both financial & sustainability impacts.	Impact materiality through risk-based due diligence on value chain.
Reporting Standard	Companies can use national, European, or international guidelines.	Requires compliance with European Sustainability Reporting Standards (ESRS).	Not applicable as a reporting framework; due diligence disclosures are required.

Table 2 Comparison of CSRD & CSDDD to NFRD continued from the previous page

Frequency of Reporting	Annual reporting.	Annual reporting with more detailed & comprehensive requirements.	Continuous due diligence process, with periodic public communication.
Digital Reporting	Not specified.	Mandates the use of digital tools & platforms for data collection and reporting.	Publicly accessible information required; no formal digital format yet established.
Timeline for Compliance	Applied since 2018.	See Figure 2. Phased from 2024 to 2028, based on company type.	See Figure 2. Phased from 2027 to 2029, based on company size and turnover.

As an addition to the CSRD, the CSDDD requires major EU corporations and some non-EU corporations doing business in the EU to perform environmental and human rights due diligence throughout their value chains and activities. Negative effects on the environment and human rights must be recognized, avoided, mitigated, and reported by businesses. Additionally, they must include responsible business practices into their management systems and policies by implementing climate transition plans that are in line with the Paris Agreement (KPMG 2024b; ECIIA 2025).

Table 3, Key requirements of ESRS, adapted from KPMG 2024c & EFRAG 2023.

Requirement	Description
Double Materiality	Report on how sustainability issues affect the company and how the company impacts the environment & society.
Cross-cutting Standards	General reporting rules that apply to various sustainability topics.
Topical Standards	Specific rules for reporting on ESG topics, such as climate change and workforce issues.
To be continued on the next page	
Governance and Strategy	Explain the company's governance & strategies for handling sustainability issues.
Quantitative Metrics and Targets	Provide detailed numbers & targets to sustainability performance like emissions and resource use.
Value Chain of Information	Include information from the entire value chain to cover all sustainability impacts.
Digital Reporting	Use digital tools for efficient data collection & reporting.

It is evident that the adoption of ESRS marks a substantial change toward sustainability reporting that is more precise and transparent. Businesses can ensure that their sustainability initiatives are appropriately reflected and presented to stakeholders by adhering to these requirements. Thus, it promotes increased trust and accountability in addition to strengthening the credibility of their sustainability reporting.

Additionally the focus on digital reporting tools showcases how truly important it is to use technology to accelerate the data collection and reporting processes. As a result, reporting ought to become more accurate and efficient, administrative tasks can be reduced, and sustainability parameters can be tracked in real-time.

To conclude, ESRS criteria seek to establish a common framework for environmental reporting that conforms to international standards, thereby ensuring that businesses are able to efficiently handle and disclose their sustainability performance. The comprehensive approach advances sustainable business practices and improves corporate responsibility throughout the EU, supporting CSRD's fundamental targets.

2.2 Double Materiality and Reporting Challenges

According to Synesgy (2024), the CSRD's fundamental principle of double materiality mandates enterprises disclose how their operations effect the environment and society as well as how environmental, social, and governance (ESG) issues affect their company. Because of this dual standpoint, companies are guaranteed to present a thorough assessment of their sustainability performance. Double materiality implementation, however, presents a number of difficulties. To evaluate and report on internal and external consequences, which can be complicated and resource-intensive, businesses need to establish effective processes. The reporting process becomes considerably more challenging when precise data collecting is required, and sustainability issues become incorporated into broader company strategies (S&P Global 2025).

By requiring businesses to evaluate and remedy both current and potential negative effects on human rights and the environment across their activities and value chains, the CSDDD supports this strategy. As a result, businesses must set up efficient due diligence procedures, interact with stakeholders, and, if required, carry out corrective actions (ECIIA 2025).

As delineated by CSRD, the double materiality notion expands the conventional understanding of materiality to include both financial and impact viewpoints. A company's financial success is the primary emphasis of financial materiality, whereas its consequences on the environment and society are the focus of impact materiality. This two-way strategy ensures that procurement choices consider not just financial results but also wider environmental and social effects, aligning with the principles of sustainable supply chains (PwC n.d-a; Global Reporting Initiative n.d; Paia Consulting 2023.)

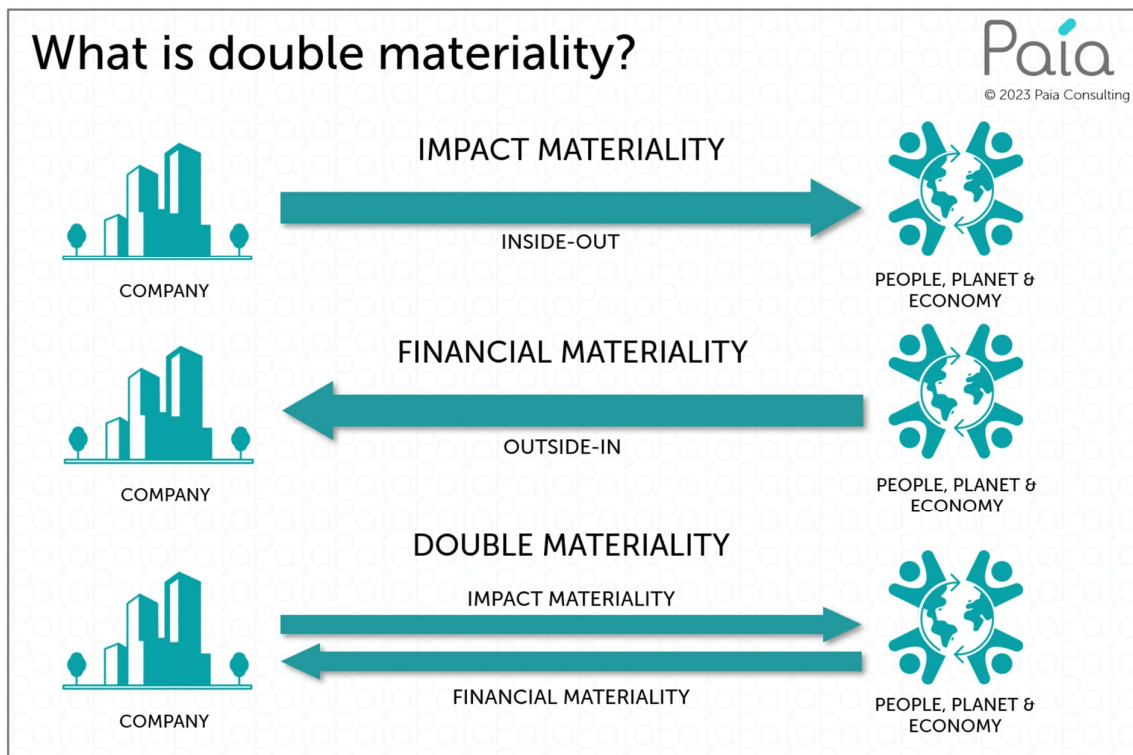


Figure 3, Double Materiality Visualized (Paia Consulting 2023).

In summary, the double materiality principle emphasizes how critical it is to assess sustainability from both a financial and an effect standpoint. With this two-way strategy, corporate sustainability reporting is guaranteed to include not only how social and environmental concerns impact a company's performance, but also how the company's activities impact larger ecological and societal systems. Although there are significant obstacles to overcome when implementing double materiality, especially with regard to data accuracy, resource allocation, and integration into strategic decision-making, it is nevertheless necessary to provide a comprehensive and open evaluation of sustainability performance. Companies can fulfill their regulatory duties under the CSRD and the risk-based due diligence standards defined in the CSDDD when double materiality is supported by strong data collection procedures and integrated into corporate governance structures. A more moral, open, and forward-thinking business climate that satisfies changing stakeholder expectations and promotes sustainable development is the ultimate result of this.

2.3 Impacts on Corporate Practices

Corporate practices are profoundly impacted by the application of the CSRD and CSDDD. By mandating thorough sustainability disclosures, the CSRD improves transparency and makes it possible for stakeholders to evaluate businesses' ESG performance more skillfully. Additionally, it encourages businesses to proactively identify and address ESG issues, which leads to improved risk

management. Furthermore, by increasing openness and data collection, the directive promotes better supplier relations and makes it easier to include sustainability into supply chain management (Salenius, 2024; Majamäki, 2024). Finally, by aligning with international standards, supply chain management might more easily incorporate sustainability, supporting a more comprehensive approach to corporate responsibility.

Similar to this, businesses are forced by the CSDDD to include ethical and sustainable business practices into their operations. Through the need that businesses perform due diligence on the effects on human rights and the environment, the directive encourages businesses to take proactive measures to mitigate negative effects and fosters accountability. Long-term sustainability is also promoted by the implementation of climate transition plans under the CSDDD, which match business strategy with international climate targets (KPMG 2024d; ECIIA 2025).

Table 4, Summarized Impacts of CSRD and CSDDD on Corporate Policies. Adapted from Salenius (2024); Majamäki (2024); KPMG (2024); ECIIA (2025); European Commission (n.d.).

<i>Impact</i>	CSRD	CSDDD
<i>Increased Transparency</i>	Businesses must share detailed sustainability-related data, making it easier for stakeholders to review performance.	Obligates companies to disclose due diligence processes & harmful impacts, enhancing external accountability.
<i>Better Risk Management</i>	Companies are encouraged to identify & manage ESG, improving overall risk management.	Mandates risk-based due diligence on human rights and environmental impacts, promoting proactive risk mitigation.
<i>Enhanced Supplier Relations</i>	Improved transparency & data collection lead to better relations with suppliers.	Strengthens stakeholder engagement by requiring profound consultation and complaint mechanisms.
<i>Stronger Supplier Governance</i>	Promotes data collection and sustainability integration in procurement and supply chain decisions.	Requires companies to monitor and influence supplier behavior throughout the value chain.

Table 4, Summarized Impacts of CSRD and CSDDD on Corporate Policies continued from the previous page.

Climate Strategy Alignment	Obligates climate-related disclosures and emissions tracking, aligning with EU climate targets.	Requires climate change strategies consistent with the Paris Agreement, placing climate action in core strategy.
Alignment with International Standards	Aligns with GRI, TCFD, and other international frameworks, accelerating global comparability.	Set in UN and OECD guidelines for responsible business conduct into mandatory due diligence frameworks.

The enhanced transparency mandate of the CSRD guarantees that all parties involved, including investors, customers, and civil society actors, have access to accurate and thorough data on the sustainability performance of corporations. Because it shows that the company is committed to moral and ecologically friendly actions, this visibility increases trust and corporate credibility. Standardized requirements for reporting and the public release of sustainability performance data put businesses in a better position to address stakeholder concerns and strengthen their accountability. Simultaneously, the CSDDD supplements this by mandating that businesses disclose their due diligence procedures and results in public, particularly when it comes to negative effects on human rights and the environment throughout their value chains (European Commission, n.d.; ECIIA 2025). Stakeholder trust in corporate behavior is further increased by this dual framework of reporting and due diligence transparency.

An additional noteworthy consequence of the CSRD is the enhancement of risk management procedures. A more proactive and strategic approach to sustainability concerns is encouraged by the directive, which requires businesses to systematically identify, evaluate, and manage ESG risks. Building on this foundation, the CSDDD requires businesses to legally do due diligence based on environmental and human rights risks across all of their operations, subsidiaries, and business relationships (KPMG 2024d). This helps avoid operational disruptions caused by non-compliance or damage to one's brand while also fortifying internal risk governance systems. The CSRD and CSDDD work together to boost long-term company resilience by encouraging the internalization of sustainability risks into fundamental risk management systems.

Supply chain governance and supplier relationships are also strengthened by both directives. Stronger supplier interaction is made possible by the CSRD's emphasis on data collection and traceability, which encourages openness and common sustainability metrics. Conversely, the CSDDD mandates that businesses actively address negative effects that occur inside their value chains, irrespective of the geographic location of those impacts. This entails interacting with suppliers via capacity-building, monitoring systems, and contractual provisions in order to encourage ethical supply chain practices (Deloitte n.d.; European Commission, n.d.; Patel 2023). As a result, companies can minimize operational and reputational risks, increase supply chain efficiency, and form more accountable and cooperative collaborations.

Conformity to international standards is becoming more and more important for businesses that operate globally. The CSRD makes this possible by integrating frameworks like the TCFD and the GRI. As with the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises, the CSDDD turns them from voluntary standards into legally binding commitments (ECIIA 2025). This harmonization increases a company's social license to operate across jurisdictions by ensuring that it can meet both EU regulatory expectations and internationally recognized norms.

In order to have a better understanding of how Company X stacks up against its peers, Table 5 summarizes a few competitors in the packaging and forest industries with regard to their procurement-related objectives, CSRD compliance, and sustainability plans.

Table 5, Company X Compared to Its Competitors, based on BillerudKorsnäs n.d.; DS Smith n.d.; Company X 2024a; Stora Enso n.d.; and UPM-Kymmene n.d.

<i>Aspect</i>	<i>Company X</i>	<i>Competitor 1</i>	<i>Competitor 2</i>	<i>Competitor 3</i>	<i>Competitor 4</i>
<i>Product Overview</i>	Engineered wood products	Packaging, biomaterials, wooden construction, and paper	Pulp, paper, and biofuels	Sustainable packaging materials and solutions	Sustainable packaging solutions, paper products, and recycling services

Table 5, Company X Compared to Its Competitors

to be continued on the next page.

<i>CSRD Compliance</i>	Complied early. Committed to sustainability and integrated ESG factors	Complied early. Integrated ESG factors into business strategy, aiming for carbon neutrality by 2050.	Complied early. Integrated ESG factors into business operations, aiming for carbon neutrality by 2030.	Complied early. Integrated ESG factors into business strategy, aiming for carbon neutrality by 2045.	Complied early. Integrated ESG factors into business strategy, aiming for carbon neutrality by 2050.
<i>Sustainability Initiatives</i>	Promotes regenerative forestry, aims for fossil-free production by 2030.	Focuses on reducing carbon footprint, promoting circular economy, and sustainable forest management.	Promotes circular economy principles, sustainable forestry, and reducing environmental impact.	Promotes circular economy, reducing waste, and sustainable forest management.	Promotes circular economy, reducing waste, and sustainable sourcing of materials.
<i>Certifications</i>	FSC®, PEFC, ISO 14001, ISO 9001, ISO 45001, ISO 50001.	FSC®, PEFC, ISO 14001, ISO 9001, ISO 45001.	FSC®, PEFC, ISO 14001, ISO 9001, ISO 45001.	FSC®, PEFC, ISO 14001, ISO 9001, ISO 45001.	FSC®, PEFC, ISO 14001, ISO 9001, ISO 45001.
<i>Market Share</i>	Significant player in the engineered wood products market in Europe.	One of the largest companies in the forest products industry, significant market share in Europe.	Major player in the global forest products industry, strong market presence in Europe.	Significant player in the European packaging industry.	Major player in the global packaging industry, significant market share in Europe.

This benchmarking offers useful background information for assessing how well Company X complies with changing legal requirements and industry best practices, as covered in Chapter 6.

To sum up, the CSRD and the CSDDD have a significant impact on business operations. For ethical and environmental responsibility, the CSDDD incorporates due diligence as a legal

requirement, while the CSRD fortifies internal mechanisms for sustainability reporting, stakeholder communication, and performance benchmarking. Collectively, these guidelines provide a climate for business that is based on accountability, openness, and long-term value generation. Businesses, their stakeholders, and society at large all gain from their combined influence, which promotes a move toward more moral, resilient, and sustainable corporate governance.

2.4 Transparency and Regulatory Criticism

Improving sustainability data quality, comparability, and transparency within the EU is the main goal of the CSRD. Investors, regulators, and civil society actors are among the stakeholders who the directive aims to ensure may make informed decisions based on trustworthy, standardized information by demanding comprehensive ESG disclosures and independent third-party verification. By enhancing accountability and requiring companies to disclose the environmental and social effects of their operations, the regulation also significantly contributes to the adoption of more sustainable practices (European Commission, n.d.; KPMG 2024d).

However, the directive's complexity and the substantial fees businesses must pay to comply with it has caused criticism. Leaders in the field argue that the demanding reporting requirements might be more beneficial to accounting firms and consultants than to boosting transparency (The Times 2025.) In light of these concerns, the European Commission is considering loosening some environmental and corporate sustainability laws and regulations. This suggests that only companies with more than 1,000 employees should be subject to CSRD, which might end up in a decrease of 80% in the number of businesses required to comply (Reuters 2025.)

The CSDDD enhances corporate responsibility by requiring public disclosure of due diligence procedures and specific actions taken to detect and mitigate negative effects, which complements the CSRD's emphasis on standardized disclosure. Through risk-based due diligence responsibilities spanning environmental harm and human rights across the full value chain, the CSDDD places an emphasis on proactive corporate responsibility in contrast to the CSRD, which is primarily focused on reporting. According to ECIIA 2025 and Deloitte (n.d.), this directive seeks to integrate sustainability into the very fabric of corporate operations, strengthening transparency and holding businesses responsible for their direct and indirect effects.

Together, the CSRD and CSDDD serve as cornerstones that supplement the European Union's larger plan to guarantee sustainable and ethical corporate practices. By establishing more stringent and uniform disclosure requirements (see Table 2), CSRD improves upon the flaws of its predecessor, the Non-Financial Reporting Directive (NFRD). At the same time, the CSDDD shifts the regulatory emphasis from reporting. Together, these initiatives seek to advance more moral and

ecologically conscious corporate conduct, foster stakeholder trust, promote systemic change, and significantly advance the EU's sustainability and climate goals. To reconcile the aspirations of these frameworks with the realistic capabilities of the various enterprises they oversee, however, it is likely that continuous regulatory changes will be required.

2.5 Recent Developments in Corporate Sustainability Reporting

The continuous evolution of corporate sustainability reporting has been emphasized in recent research, which shows a notable move away from traditional environmental disclosures and toward more thorough frameworks with an emphasis on ESG. Du Toit (2024) highlights the evolution of corporate sustainability reporting (CSR) in a comprehensive analysis of the last three decades. The study also identifies enduring deficiencies in standardized reporting procedures and the accuracy of sustainability-related data. Recent studies have reinforced these concerns, emphasizing how hard it is for businesses to comply with many frameworks and maintain disclosure uniformity. A 2025 article by Champsaur, Du Toit & KPMG. examines the effects of recent regulatory changes, especially the CSRD's implementation, on sustainability reporting procedures' legal requirements and scope. Since the CSRD also applies to non-EU companies that conduct significant business in the European market, the KPMG (2024a) poll also shows that there is a growing awareness of the CSRD worldwide, including its impact outside of the EU. By creating required due diligence responsibilities to integrate environmental and human rights accountability into business practices, the Corporate Sustainability Due Diligence Directive (CSDDD), which supplements the CSRD, represents another significant milestone. In order to solve long-standing shortcomings in sustainability reporting, the European Union has introduced unified standards and legally obligatory requirements through the CSRD and CSDDD.

2.6 Comparing CSRD with Other Sustainability Reporting Frameworks

The CSRD and the GRI are two of the frameworks that are most commonly used in corporate sustainability reporting. Although their applications, enforcement, and scopes are very different, both seek to increase accountability and openness in ESG disclosures. Under the European Sustainability Reporting Standards (ESRS), which place an emphasis on double materiality and call for third-party certification, the CSRD requires common, legally binding disclosures (Freshfields Bruckhaus Deringer, 2025; EFRAG, 2023). In order to provide consistent, comparable, and verifiable ESG data across EU markets, these guidelines were created.

In contrast, the GRI offers an internationally accepted, voluntary framework that gives firms more freedom to customize disclosures according to operational circumstances and stakeholder

expectations. With a focus on social and environmental implications, its stakeholder-oriented materiality approach offers wider applicability across jurisdictions (GRI, 2024).

The new framework introduced by the International Sustainability Standards Board (ISSB) that focuses on investor-centric financial materiality adds even more complication. The purpose of ISSB standards, which were created in accordance with IFRS principles, is to assist investors in evaluating the financial risks and possibilities associated with sustainability. In contrast to the CSRD, which employs a twofold materiality lens to examine both societal and environmental effects, the ISSB only looks at financial ramifications (IFRS n.d.).

Table 6, Comparison of CSRD, GRI and ISSB Standards (GRI 2024; EFRAG 2023; IFRS 2023).

Feature	CSRD (ESRS)	GRI	ISSB
<i>Legal Status</i>	Mandatory (EU-based)	Voluntary (Global)	Voluntary (Investor-focused)
<i>Materiality Approach</i>	Double Materiality	Stakeholder Materiality	Financial Materiality
<i>Focus</i>	ESG performance & compliance	Sustainability impacts	Financial impact of ESG risks
<i>Target Audience</i>	Regulators, stakeholders	Stakeholders	Investors, financial analysts
<i>Reporting Standards</i>	ESRS	GRI Standards	IFRS Sustainability Standards

It is essential for international corporations that are subject to overlapping regulatory obligations to comprehend these differences. A summary of the main distinctions between the CSRD, GRI, and ISSB frameworks can be seen in Table 3.

2.7 Relevance of UN SDGs to Corporate Sustainability Reporting

The United Nations Sustainable Development Goals (SDGs) 12 (Responsible Consumption and Production), 13 (Climate Action), and 17 (Partnerships for the Goals) are all closely aligned with the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD). These SDGs provide a widely accepted framework for tackling important issues like multi-stakeholder collaboration, sustainable resource use, and climate change. The directives work together to promote responsible business conduct, transparency, and

proactive sustainability action across industries by requiring comprehensive ESG reporting (CSRD) and legally binding environmental and human rights due diligence (CSDDD) (United Nations, n.d.-a-c).

By mandating that businesses provide comprehensive information on resource usage, waste management, and circular economy projects, the CSRD directly advances SDG 12. Increased resource efficiency, less environmental waste, and accountability in production and consumption methods are all facilitated by this transparency. This has been demonstrated by businesses like Unilever, which have implemented comprehensive environmental reporting systems to encourage sustainable production practices and reduce waste (Unilever 2025).

By incorporating climate-related goals into corporate governance, both mandates concurrently strengthen SDG 13. Companies must establish climate transition plans that are in line with the Paris Agreement in order to comply with the CSDDD. This encourages the adoption of measures that actively cut carbon emissions and foster long-term climate resilience. This objective is further supported by the CSRD, which requires the disclosure of Scope 1, 2, and 3 emissions, bringing sustainability reporting into line with larger initiatives to mitigate climate change. IKEA's objective to achieve climate positive by 2030, for example, is backed by sustainability disclosures and transparent emissions tracking. This illustrates how legal frameworks like CSRD may enable transformative climate action (IKEA 2025).

Furthermore, SDG 17, which encourages collaborations for sustainable development, is greatly aided by the focus on stakeholder participation, accountability, and transparency in both CSRD and CSDDD. Companies and their stakeholders, such as investors, regulators, non-governmental organizations, and the general public, can develop trust through the requirements for openness. Through the public release of sustainability performance data and the engagement of stakeholders in due diligence procedures, companies can better cultivate significant partnerships that propel systemic change. A prime example is Microsoft's work with the UN on global sustainability projects, which highlights the need of stakeholder cooperation and corporate transparency in achieving common objectives (Microsoft 2025).

To conclude, by coordinating corporate responsibility with the SDGs' goals, the CSRD and CSDDD jointly contribute significantly to the advancement of the EU's sustainability strategy. The CSDDD requires active due diligence, which increases corporate accountability, while the CSRD improves sustainability governance through standardized and validated reporting. Collectively, these guidelines establish a thorough framework that promotes ethical supply chain operations, long-term value generation, and strong international alliances in addition to ensuring compliance.

2.8 Stakeholder Theory and Its Relevance to Reporting of Sustainable Procurement

According to the Stakeholder Theory, which was first put forth by Freeman in 1984, businesses have an obligation to manage their interactions with a wider range of stakeholders who either influence or are influenced by their decisions. This theory provides a convincing framework for comprehending why and how businesses should fulfill the expectations of communities, NGOs, investors, consumers, employees, suppliers, and regulators in their disclosures when it comes to sustainability reporting.

This stakeholder-centric perspective is explicitly included into the CSRD, which mandates that companies report not only the financial effects of ESG risks but also the wider environmental and social effects of their operations. As per EFRAG 2023 and Synesgy 2024, this is consistent with the double materiality principle, which takes into account both impact materiality (important to impacted communities and civil society) and financial materiality (important to investors). Therefore, the transition of CSRD from voluntary to required disclosures that take into account a variety of external interests is supported by stakeholder theory.

Likewise, the CSDDD broadens the definition of stakeholder involvement beyond reporting into active due diligence, mandating that businesses find, evaluate, and address negative environmental and human rights effects throughout their value chains. Incorporating stakeholder engagement into risk assessment and grievance procedures, CSDDD strengthens the notion that non-financial stakeholders, including workers, advocacy organizations, and local communities, need to be taken into account during the reporting and decision-making processes (Directive on Corporate Sustainability Reporting 2022/2464/EU; ECIIA 2025).



Figure 4, Stakeholder theory and sustainability reporting (Freeman 1984; FSC n.d.; Synesgy 2024; PwC 2024b; PEFC n.d.a.)

Stakeholder theory backs up the increasing need for clear, verifiable, and decision-relevant data from the standpoint of reporting and procurement (see Figure 4). For example:

- Investors anticipate comprehensive ESG measurements, risk reports, and plans for climate change that adhere to reporting guidelines such as ESRS,
- Impact narratives, responsible sourcing claims (like FSC/PEFC), and product traceability are ways that consumers and NGOs demand accountability,
- Upstream data on emissions and labor practices are being included in reporting systems, and suppliers are increasingly viewed as partners in achieving common sustainability goals.

Consequently, stakeholder theory not only explains why businesses report on ESG issues, but it also influences the content of those reports. The idea supports the growth of inclusive, integrative, and forward-looking sustainability reports that benefit not just financial analysts but also the general public, policymakers, and civil society. A growing understanding of corporate responsibility that goes beyond financial returns to include long-term societal well-being and environmental stewardship is reflected in CSRD and CSDDD, which base corporate reporting requirements on a philosophy of stakeholder value. This theoretical framework will be applied throughout the thesis to examine how Company X's procurement and reporting practices meet the demands of various stakeholder groups.

3 Procurement in Sustainable Supply Chain Management

The shift to sustainable supply chain management (SSCM), particularly in light of the growing scrutiny of social and environmental norms, depends heavily on procurement. In today's company environments, procurement is a strategic function with broad ramifications for corporate sustainability and compliance, rather than just a transactional activity. According to Huuhka (2017), it includes all procedures associated with purchasing products and services, such as choosing a supplier, entering into a contract, placing an order, and making a payment; in other words, it includes all activities requiring monetary commitments and resource planning.

This chapter looks at how the engineered wood products industry, in particular, is changing procurement in response to sustainability constraints. The impact of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) on cost structures, supplier relationships, and procurement systems is highlighted.

3.1 From Traditional to Sustainable Procurement

Procurement has changed from being a transactional, cost-driven function to a strategic tool for creating social and environmental value. Traditionally, timely delivery, product quality, and cost effectiveness have been given top priority in traditional procurement. On the other hand, supplier evaluation, long-term strategic planning, and decision-making all incorporate environmental, social, and governance (ESG) considerations (Benton 2021; EcoVadis, n.d.; Huuhka, 2017).

The aspirational viewpoints presented by sources like IBM (2023), although their instructive value, may understate the logistical and financial difficulties involved in making the switch to sustainable buying. Consideration must be given to regional differences in supplier capabilities, digital infrastructure, and regulatory readiness.

The industry for engineered wood products is one where this change is most noticeable. Sustainable sourcing is now validated by industry standards like the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) (Build with Rise, 2025; Forest Stewardship Council, 2025). These certificates are in line with the CSRD and CSDDD, which set forth the EU's sustainability goals.

Table 7, Comparison of traditional & sustainable procurement. Adopted from Cloudepex 2023; Upadhyay, Sheetal & Khan 2022; IBM 2023.

Aspect	Traditional Procurement	Sustainable Procurement
Focus	Cost & quality	Environmental, social & economic considerations
Decision Criteria	Price, quality & delivery time	Total Cost of Ownership (TCO), lifecycle costs & sustainability impacts
Supplier Selection	Based on cost & quality	Based on sustainability practices, ethical standards & environmental impact
Continued from the previous page		
Resource Use	Focus on immediate resource needs	Prioritizes renewable resources, minimize waste & promote resource efficiency
Environmental Impact	Limited consideration	Emphasizes reducing carbon footprint, waste generation & pollution
Social Responsibility	Minimal focus	Promotes fair labour practices, human rights, diversity & inclusion
Long-term Value	Short-term cost savings	Long-term value creation
Risk Management	Focus on financial & operational risks	Includes ESG risks & promotes proactivity
Innovation	Limited to cost & quality improvements	Encourages innovation in sustainable practices & technologies

Another important factor in supporting the concepts of the circular economy is procurement. The goal of circular procurement techniques is to reduce the environmental impact of materials by reusing, recycling, and regenerating them (Browne, 2024; Gartner, n.d.; Ellen MacArthur Foundation, n.d.-b). Figure 4, which was taken from the Ellen MacArthur Foundation, highlights the continuous reuse of resources in closed-loop supply chains by using the popular butterfly diagram to graphically depict this idea.

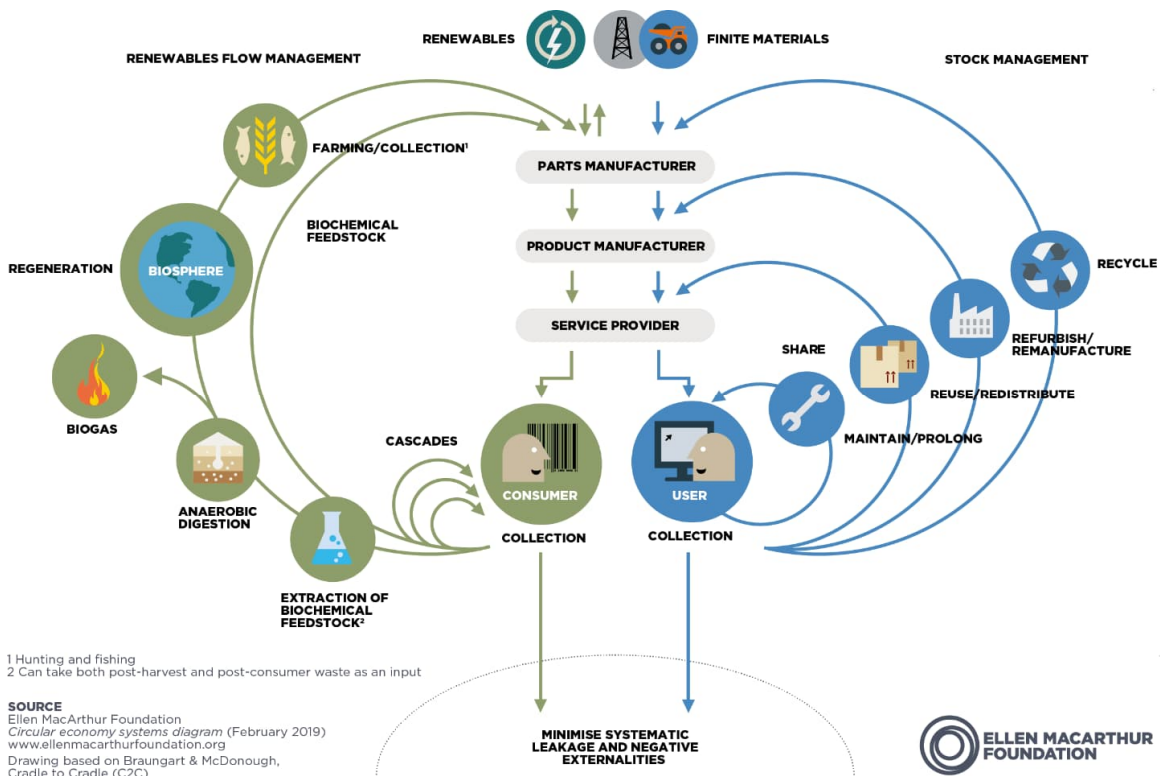


Figure 5, Butterfly diagram (Ellen MacArthur Foundation n.d.-b).

Studies by McKinsey (2024), KPMG (2023), and Focal Point (2024) further emphasize how technology, artificial intelligence (AI), and digital platforms are transforming procurement into a value-generating function. These advancements support traceability, supplier engagement, and real-time performance monitoring — capabilities crucial for meeting CSRD disclosure requirements and CSDDD due diligence obligations.

Borza (2014) affirms these perspectives by highlighting collaboration and transparency as critical enablers of sustainable supply chain management (SSCM). Procurement is identified as the linchpin for integrating ESG considerations into corporate operations.

ESG reporting procedures, IT infrastructure, and compliance processes all require large upfront investments under CSRD and CSDDD. Although there are significant short-term expenses,

Cantale & Cabolis (2025) assert that enhanced supply chain resilience, resource efficiency, and risk reduction can result in long-term savings.

From opportunity identification to contract execution, supplier evaluation, and performance monitoring, Figure 5 describes the procurement process. Every step of the process, from market research and pre-qualification questionnaires to sustainability-aligned bidding and enduring supplier partnerships, must incorporate ESG considerations.

The power of procurement to effect change also stems from its ability to shape market dynamics. Companies can guide sectors toward more responsible practices by promoting innovation and giving preference to suppliers with certified sustainability credentials (McKinsey, 2024; UNEP, 2024). Blockchain, artificial intelligence, and the Internet of Things (IoT) are some of the Industry 4.0 technologies that improve efficiency, traceability, and transparency (Khan, Ahmad & Majava, 2023).

All this considered, procurement is leading the way in incorporating ESG objectives into practical operational requirements. Not only is procurement fulfilling regulatory requirements, but it is also influencing future norms for sustainable business practices through certification programs, circular economy models, and digitally improved governance. Because of this, its strategic role in the supply chain is essential to accomplishing the goals of the CSRD and CSDDD, both now and in the future.

3.2 Procurement Under CSRD and CSDDD

SRM is changing its role in procurement as a result of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD). These guidelines reorient supplier management to focus on long-term sustainability, accountability, and regulatory compliance throughout global supply chains, rather than cost and efficiency. In addition to ensuring complete visibility across several supplier layers, organizations now need to consider the ethical, social, and environmental aspects of procurement, which go much beyond traditional sourcing methods (EFRAG, 2023; European Commission, 2024).

Companies must reveal comprehensive sustainability data pertaining to procurement, including Scope 3 emissions and supplier impacts, in accordance with CSRD. They must conduct supplier audits, embrace sophisticated traceability systems, and integrate sustainability-related training into all aspects of their procurement processes in order to comply (Deloitte, 2024; Supplier Gateway, 2024; PwC 2023). These initiatives alter supplier interaction strategies in addition to procurement cost structures and technology investments.



Figure 6, Procurement Process (CIPS. n.d.-a).

The main stages of the procurement cycle are depicted in Figure 6, starting with needs analysis and market research and ending with contracting, tendering, and supplier relationship management. The Figure highlights the integration of sustainability across the process, reaffirming that ESG considerations and legal due diligence are now part of the supplier selection, bid evaluation, contract monitoring, and asset management processes.

By imposing legally binding requirements on businesses to recognize, stop, and address adverse effects linked to environmental deterioration and human rights abuses, CSDDD fortifies these duties. Among the provisions are strategies for the climate transition, stakeholder engagement procedures, and complaints processes (Directive 2022/2464/EU; ECIIA, 2025).

Companies are implementing tiered supplier engagement models in practice, which divide suppliers into groups according to strategic value or ESG risk. High-risk suppliers might be the focus of more thorough evaluations, like thorough carbon reduction plans and third-party audits. Suppliers with lower risk may be required to submit data on a regular basis. At the same time, a number of businesses, including industry leaders like Company X, are using shared learning platforms, co-developed roadmaps, and sustainability training as support initiatives to increase SMEs' capabilities.

Table 8, SRM Practices Under CSRD & CSDDD (Directive on Corporate Sustainability Reporting 2022/2464/EU; Directive on Corporate Sustainability Due Diligence COM/2022/71).

Practice	Description
Risk Assessment	Identifying potential environmental and human rights risks in the supply chain (Chakraborty 2024).
Supplier Due Diligence	Ensuring suppliers comply with CSRD disclosure and CSDDD human/environmental standards (Supplier Gateway 2024).
Monitoring and Reporting	Tracking supplier emissions, waste, and human rights impacts; reporting metrics in sustainability disclosures (Supplier Gateway 2024).
Audits and Performance Reviews	Conducting regular compliance checks to enforce corrective actions and track improvement (Chakraborty 2024).
Supplier Training and Support	Supporting suppliers in building sustainability competence (Chakraborty 2024).
Transparency and Accountability	Ensuring visibility into supplier practices and holding them accountable for sustainability impacts (KPMG 2024b).
Collaboration and Long-term Relationships	Creating shared value through long-term partnerships focused on innovation, mutual development, and CSRD/CSDDD alignment (Chakraborty 2024).

For SRM to succeed under CSRD and CSDDD, sophisticated digital procurement mechanisms are essential. Real-time visibility, risk tracking, and legal compliance are made possible by integrated ERP dashboards, ESG scorecards, and pre-qualification screening systems (like EcoVadis). Mechanisms for continuous improvement, like collaborative innovation platforms, audit cycles, and supplier feedback loops, aid in the development of supplier maturity and regulatory alignment.

According to the Triple Bottom Line (Elkington, 1998), these methods strike a balance between social, environmental, and economic performance. Engaging suppliers becomes a strategy for competitive advantage, resilience, and stakeholder trust in addition to compliance. Co-creating value with suppliers through shared objectives and accountability promotes mutual benefit, as highlighted by Freeman's Stakeholder Theory (1984).

The significance of enduring, cooperative relationships with suppliers is emphasized by both CSRD and CSDDD. These connections not only help with legal compliance but also increase the robustness of the supply chain as a whole and encourage creativity. Building competency and trust through engagement improves the organization's capacity to satisfy stakeholders and support more general sustainability goals, such those set forth in the Sustainable Development Goals of the UN.

Core techniques for effective SRM under CSRD and CSDDD include the following (see also Table 9):

- evaluating social and environmental concerns using a risk-based approach,
- ESG standards are being incorporated into performance reviews and sourcing,
- tracking the use of resources, emissions, and human rights compliance of suppliers,
- encouraging open and honest communication and responsibility,
- assisting suppliers in developing their sustainability capabilities through training and support,
- forming long-term cooperative alliances that advance common sustainability objectives.

Using risk-based segmentation, onboarding procedures, and ESG incentive programs, businesses in industries including electronics, manufacturing, and forestry are already putting these methods into practice. The significance of digital integration for Scope 3 emissions tracking and performance alignment with European Sustainability Reporting Standards (ESRS) is emphasized by KPMG (2024).

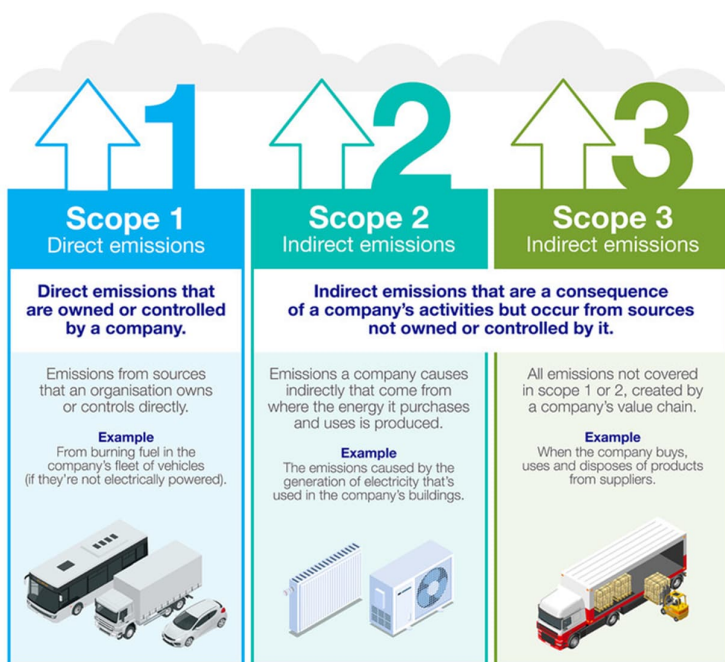
Ultimately, a strategic, values-based strategy is required for supplier management under CSRD and CSDDD. Incorporating ESG standards and developing supplier capability positions businesses for long-term leadership in sustainability-driven markets in addition to regulatory compliance..

3.3 Financial Implications and Investment Pressures

Significant operational and financial demands are placed on procurement departments as a result of the adoption of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD). Throughout the value chain, these mandates require

thorough reporting and proactive risk mitigation, which has an impact on everything from compliance plans to technology investments.

Businesses must collect precise data on supplier performance, waste management, and emissions related to procurement in order to comply with the European Sustainability Reporting Standards (ESRS). Additional complication and expense are added by the requirement for independent third-party verification (Grand View Research, 2025). Furthermore, these specifications call for the incorporation of sustainability into supplier engagement procedures and procurement contracts, which encourages accountability, transparency, and connection with the UN Sustainable Development Goals (Verschelden, 2024).



nationalgrid

Figure 7, Scope 1, 2 & 3 emissions (Nationalgrid n.d)

The categories of greenhouse gas (GHG) emissions that businesses are required to measure and report are shown in Figure 7. Direct emissions from company-owned sources are referred to as scope 1. Indirect emissions from energy purchases are recorded in scope 2. Scope 3 is the most complicated and supplier-dependent because it covers all additional indirect emissions across the value chain. All three scopes must be accurately reported in order to comply with CSRD and ESRS.

As a result, procurement departments become crucial centers for compliance. Through the introduction of legal obligations of care for impacts on the environment and human rights, CSDDD goes beyond reporting. Teams in charge of procurement must:

- Assess suppliers carefully for threats to human rights and the environment.
- Incorporate enforceable ESG provisions into supplier agreements.
- If remediation is unsuccessful, end high-risk supplier ties.
- Provide channels for complaints to impacted parties.

Especially in high-risk industries like forestry and chemical processing, these policies put pressure on sourcing choices. Businesses may need to create corrective action plans and prioritize certified suppliers (such as FSC and PEFC) in order to avoid legal liability (European Commission, n.d.; KPMG, 2024f).

Table 9, Impact of CSRD & CSDDD on Procurement Costs & Investments, adapted from Mashreghi 2024; European Commission n.d.; PwC 2024b; Cantale & Cabolis 2025; ECIIA 2025.










Aspect	Impact		Details
<i>Compliance costs</i>	Increase		To fulfill CSRD's reporting requirements and CSDDD's due diligence requirements, which include supply chain audits and stakeholder engagements, businesses must invest in systems and legal compliance procedures.
<i>Data collection & reporting</i>	Increase		CSRD needs comprehensive ESG data, including Scope 3 emissions, whereas CSDDD calls for environmental risk and human rights data along the value chain, both of which demand a large investment of resources.
<i>Technology investments</i>	Increase		To satisfy CSRD reporting and CSDDD due diligence requirements, procurement functions require digital traceability systems, such as ERP and blockchain.

Table 9, Impact of CSRD & CSDDD on Procurement Costs & Investments continued from the previous page			
<i>Training & Development</i>	Increase		Employees must get training on sustainable sourcing, risk identification, ESG reporting, and grievance procedures in accordance with both directives.
<i>Supplier management</i>	Increase		Demands risk mapping, improved supplier engagement, clauses in contracts, and maybe supplier dismissal for non-compliance.
<i>Operational efficiency</i>	Potential increase		Integrated ESG-compliant procurement systems and optimized procedures can result in long-term efficiency gains.
<i>Risk management</i>	Increase		Risk identification and mitigation expenses are increased by due diligence obligations (CSDDD), particularly in high-risk areas or sectors.
<i>Innovation in sustainable practices</i>	Increase		To reach compliance requirements, both directives encourage innovations in low-carbon sourcing, circular procurement, and eco-design.
<i>Long-term cost savings</i>	Potential decrease		Making early investments in sustainability could improve supply chain resilience, prevent reputational problems, and lessen environmental fines.

Note: In Table 6, red arrows (↑) indicate an increase in costs or investments, while green arrows (↓) indicate a potential decrease.

Even though consulting firms like PwC point out potential cost benefits, these estimates frequently make the assumption that SMEs will have good regulatory readiness and modern digital infrastructure, which are not always the case. Legal exposure, supplier disengagement risk, training, and digital transformation are all part of the true cost of compliance.

Nowadays, digital platforms are essential for maintaining compliance. To assess Scope 1–3 emissions and keep an eye on supplier performance in real time, procurement teams are increasingly using risk management software, ESG dashboards, and emissions calculators (Akkermans, 2024; Safdie, 2024). These solutions enhance data accuracy and timeliness while easing administrative constraints.

In the end, the CSDDD and CSRD work together: CSDDD requires specific steps to rectify the results, while CSRD requires transparency through thorough reporting. Because of this feedback loop, procurement is positioned at the center of sustainability governance. A proactive, digital-first compliance approach can help firms become more resilient, lower legal risks, boost ESG credibility, and meet the demands of stakeholders..

3.4 Challenges and Future Trends in Sustainable Procurement

With the increasing intensity of stakeholder expectations and regulatory duties, procurement is undergoing a considerable transition. Complexity has increased with the shift from voluntary Corporate Social Responsibility (CSR) programs to legally required sustainability requirements. CSRD and CSDDD, which are both reframing procurement as a compliance-critical, impact-driven function, are the main forces behind this transition.

Company disclosure of a wide range of ESG indicators, such as Scope 3 emissions, biodiversity impacts, and resource efficiency metrics, is mandated by CSRD. Nevertheless, these disclosures frequently rely on partial, self-reported information from international vendors with differing degrees of regulatory alignment and digital maturity. This gives procurement experts two tasks to complete: making sure that data is collected accurately and evaluating the sustainability and dependability of suppliers (Grand View Research, 2025; Chakraborty, 2024).

By imposing legally binding responsibilities, CSDDD intensifies these difficulties. Companies need to proactively detect, reduce, and address adverse effects on human rights and the environment in their value chains and activities (European Commission, n.d.; ECIIA, 2025). Procurement is thus transformed from a transactional to a strategic function, requiring systematic due diligence procedures like:

- Supply chain risk mapping by sector and location,
- Supplier contracts with integrated ESG compliance clauses,

- Procedures for addressing grievances among affected parties,
- Termination of suppliers that are unable to reduce significant risks (Deloitte, n.d.).

International regulatory discrepancy makes these obligations even more complex. Despite the fact that EU directives are mandatory, many non-EU providers lack the knowledge or are not ready to comply with CSRD and CSDDD. This global-local discrepancy makes it challenging to analyze and compile sustainability data, while also increasing administrative complexity and legal liability.

Organizational problems within the company contributes to these problems. Numerous businesses deal with supplier ESG immaturity, especially among upstream partners in emerging countries, lack standardized emissions reporting systems, and encounter opposition to change (Salenius, 2024; Majamäki, 2024; Dryden Group 2024). Limited supplier interaction and varied methodology make it difficult to measure and validate Scope 3 emissions, even with digital tools in place (Dryden Group 2024).

However, it is crucial to implement Sustainable Supply Chain Management (SSCM) frameworks. Significant investments in technological systems, ESG data verification, and supplier interaction are required by these frameworks. Additionally, they support important conceptions of sustainability:

- Environmental, economic, and social implications are all emphasized by the Triple Bottom Line (TBL) (Chakraborty, 2024; Loza Adauí et al., 2024).
- The creation of shared value for all stakeholders, including suppliers and communities, is encouraged by stakeholder theory (Freeman, 1984; Quist, 2025).

Implementation of sustainable procurement is guided by internationally accepted standards in addition to more general conceptual frameworks. Procurement procedures are brought into compliance with stakeholder and regulatory expectations through the use of organized, auditable frameworks, specifically ISO certifications. Environmental management systems are established by ISO 14001 to increase adherence to environmental rules and decrease waste. Occupational safety and energy efficiency are addressed by ISO 45001 and ISO 50001, respectively, while ISO 9001 guarantees quality control throughout processes and supplier performance. All of these certifications help firms meet the environmental, social, and economic requirements set forth by CSRD and the expectations set forth by CSDDD. Additionally, according to ISO (2015) and ISO (2018), they help institutionalize sustainability expectations throughout the value chain and function as evaluation criteria in supplier assessments.

Table 10, Drivers for SSCM in Organizations

Aspect	Details
Regulatory & compliance requirements	Governments & regulatory bodies are mandating more sustainability through laws and regulations. Compliance to these is a primary driver for organizations to adopt SSCM practices (Saeed & Kersten 2019.)
Market & customer demand	Customers & stakeholders are more conscious of environmental and social issues. Increased awareness drives organizations to implement sustainable practices to meet expectations and maintain the competitive leverage (Saarela 2021.)
Cost efficiency & risk management	Sustainable supply chain practices can lead to cost savings through improved resource efficiency, waste reduction & energy savings. Managing sustainability risks also mitigate potential disruptions and ensure continuity (EY 2024.)
Corporate Social Responsibility (CSR)	Companies are recognizing their responsibility towards society and the environment. CSR initiatives drives organizations to integrate sustainability into their operations to enhance their image & reputation (Deloitte 2024.)
Innovation & competitive advantage	Sustainability can be a source of innovation, leading to the development of new products, services & business models. Organizations embracing this can gain leverage by differentiating themselves in the market (Forbes 2020.)

Table 10, Drivers for SSCM in Organizations

To be continued on the next page

Investor & financial community pressure

Investors & financial institutions are emphasizing ESG criteria when making investment decisions. Companies are driven to adopt sustainable practices to attract and retain investment. Organizations with strong ESG performance are seen as safer & more stable investments, possibly leading to improved access to capital and better stock performance (World Economic Forum 2025.)

Employee engagement

More employees are valuing sustainability in their workplace. Companies prioritizing sustainability can attract & retain talent, as employees prefer to work for organizations that align with their values. Positive work culture and job satisfaction are more common (Sustainable Business Toolkit 2024; Vantage Circle 2024.)

A technological challenge in sustainable procurement is managing Scope 3 emissions, which come indirectly from the value chain of the organization. When standardized, supplier-level data is unavailable, it becomes challenging to accurately measure these emissions. Transparency and data integrity are made possible by technologies like blockchain, the Internet of Things (IoT), and ESG dashboards (PwC, 2023; Deloitte, 2023).

When integrated into Enterprise Resource Planning (ERP) systems, these solutions enable procurement experts to fulfill the criteria for both CSDDD due diligence and CSRD reporting. In the future, procurement will increasingly include:

- ERP systems with real-time supplier scorecards and digital traceability
- wider use of ethical sourcing certifications such as FSC and PEFC
- Collaborative procurement partnerships to pool resources for supplier assessments and ESG audits
- Conformity to international standards such as the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.

More importantly, procurement strategies need to be strengthened. The disruptions caused by raw material shortages, geopolitical instability, and climate change are getting worse. Organizations

must create flexible procurement systems with a long-term sustainability foundation in order to adhere to CSRD and CSDDD while managing such uncertainties. The future of procurement will depend on combining modern digital capabilities, stakeholder expectations, and regulatory compliance into a coherent, value-generating plan.

3.5 Alignment of Procurement with the UN Sustainable Development Goals and Forest Certification

Developing corporate sustainability and accomplishing the Sustainable Development Goals (SDGs) of the UN, especially SDGs 12 (Responsible Consumption and Production), 13 (Climate Action), and 17 (Partnerships for the Goals), depend heavily on procurement. The CSRD and CSDDD are regulatory frameworks that integrate environmental, social, and governance (ESG) goals into procurement choices, thereby connecting procurement operations with global development targets (United Nations, n.d.-a-c).

Through the need of transparent reporting on supply chain impacts, such as emissions, material consumption, and waste generation, CSRD promotes progress toward SDG 12. This encourages companies to monitor and enhance resource efficiency, which helps them meet the goals of the circular economy. By including sustainability standards in contracts, choosing environmentally friendly vendors, and providing incentives for better performance, procurement departments help. Businesses like Patagonia show this linkage by using innovative materials and ethical sourcing (Patagonia, 2025).

By establishing legally binding standards linked to SDG 13, which deals with climate change, CSDDD improves this even more. It requires businesses to put climate transition plans into action and involve suppliers in decarbonization initiatives. It is anticipated that procurement teams will use supplier partnerships and carbon reduction targets to both measure and actively cut emissions, especially Scope 3 emissions.

The increased focus on teamwork is a reflection of SDG 17. Establishing complaints processes and involving stakeholders are requirements of both directions. Procurement encourages systemic improvements across industries through shared sustainability initiatives, capacity-building, and long-term relationships.

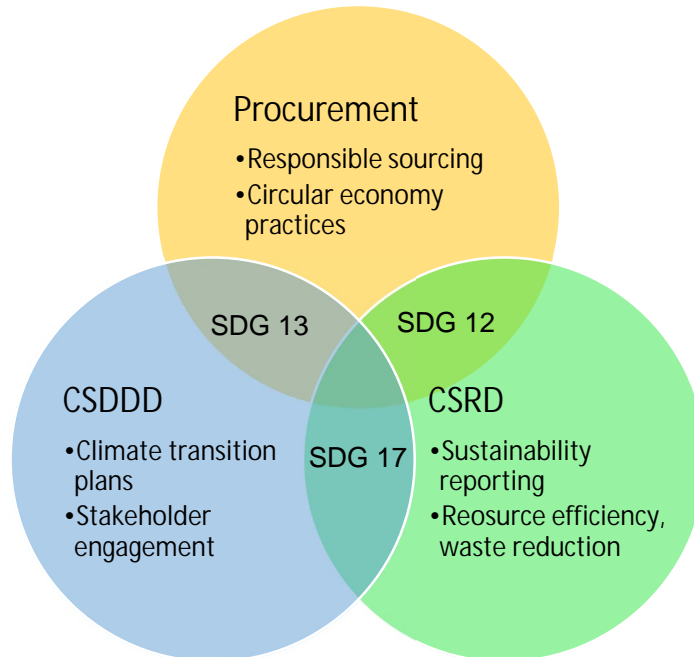


Figure 8, Alignment of Procurement with UN SDGs (United Nations n.d.-a-d; Directive on Corporate Sustainability Reporting 2022/2464/EU; Directive on Corporate Sustainability Due Diligence COM/2022/71).

Forest certification systems, particularly in the engineered wood sector, are becoming crucial to sustainable sourcing. The CSRD and CSDDD goals are in line with the verified sustainability credentials offered by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) (FSC 2021; PEFC n.d.a).

These certifications use criteria for community welfare, forest management, and biodiversity conservation to guarantee sustainable sourcing. Traceability from the source of raw materials to the finished product is made possible by the chain-of-custody (CoC) model, which is the foundation of both programs and is confirmed by independent third-party audits. This offers procurement teams a dependable way to show due diligence and responsible purchasing in accordance with EU law and stakeholder expectations (Cashore et al., 2004; Gulbrandsen, 2005).

FSC and PEFC certifications are being used more and more by procurement teams to verify ESG compliance, especially in areas with little governmental control. By providing reliable proof on material traceability, carbon storage, and biodiversity protection, these certificates aid CSRD disclosures. Under CSDDD, they also act as instruments for risk mitigation, particularly when sourcing from high-risk regions that are vulnerable to labor breaches, illicit logging, or deforestation.

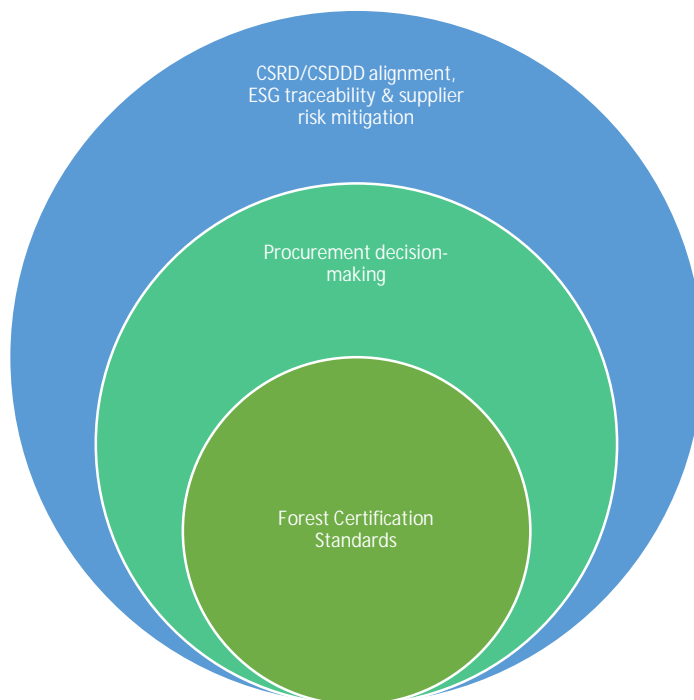


Figure 9, Forest Certification Standards' integration to sustainable procurement practices (FSC n.d.; PEFC n.d.b; Cashore et al. 2004; Gulbrandsen 2005.)

Table 11, The Role of Certification and SDG Integration in Procurement

CERTIFICATION/SDG FOCUS	PROCUREMENT ROLE
<i>FSC & PEFC CERTIFICATIONS</i>	Traceable, third-party verified sourcing; support CSRD/CSDDD disclosures
<i>SDG 12 (SUSTAINABLE CONSUMPTION)</i>	Encourages circular economy, resource efficiency, and ethical supplier selection
<i>SDG 13 (CLIMATE ACTION)</i>	Guides procurement toward low-carbon suppliers and emissions reduction
<i>SDG 17 (PARTNERSHIPS)</i>	Promotes collaboration, shared audits, and inclusive stakeholder engagement

Furthermore, FSC and PEFC certifications improve access to green finance and the legitimacy of sustainability disclosures by being in line with the EU Taxonomy for Sustainable Activities (Regulation 2020/852/EU). The strategic significance of incorporating forest certification standards into procurement policy is reaffirmed by this.

Certifications are ultimately strategic facilitators that operationalize and legitimate sustainable supply chains rather than being stand-alone credentials. While generating long-term value, they assist firms in balancing the demands of stakeholder accountability and regulatory compliance. Procurement departments can improve sustainability results, lower risk, and comply with the CSRD and CSDDD by including FSC and PEFC criteria into their decision-making frameworks.

3.6 Summary and Transition

Procurement is now a strategic pillar of sustainability rather than a transactional one. Due to the combined legal pressures of the CSRD and CSDDD, procurement is increasingly essential to the advancement of climate resilience, environmental responsibility, and ethical sourcing in global supply chains. Under the direction of frameworks like the Triple Bottom Line and Stakeholder Theory, the chapter describes how procurement incorporates ESG factors into supplier selection, contract management, and risk reduction.

There are major fiscal consequences to this change in regulations. The new requirements require organizations to invest in digital platforms, training, traceability systems, and third-party audits, particularly with regard to Scope 3 emissions and human rights threats. Small and medium-sized businesses (SMEs) encounter disproportionate difficulties because of their inadequate infrastructure and immature suppliers.

The UN Sustainable Development Goals (SDGs) can be advanced through procurement, notwithstanding these obstacles. While CSDDD implements emission reduction plans and climate adaptation (SDG 13), CSRD encourages transparency and circular economy principles (SDG 12). In order to achieve SDG 17, both directives promote value chain accountability and stakeholder collaboration, which strengthen globally.

Procurement's sustainability objectives are further supported by forest certification programs, particularly FSC and PEFC. These certificates provide third-party certified sourcing that is traceable and in line with SDG goals and EU legislation. They are becoming more widely accepted under the EU Taxonomy for Sustainable Activities and are essential instruments for legitimacy and risk reduction in high-risk sourcing areas.

In summary, procurement is now a force that drives innovation and compliance within corporate sustainability rather than being a passive role. Despite having explicit objectives, the directives' implementation is nonetheless unequal because of their complexity, expense, and data restrictions. In the upcoming chapter, the research approach utilized to examine these changing dynamics from Company X's perspective will be described.

4 Reflection on Sustainable Procurement and Reporting

The theoretical framework established in Chapters 1 through 3 states that, especially in industries like engineered wood products, the connection between corporate sustainability reporting and sustainable procurement is becoming more and more important for contemporary business strategy. Companies' approaches to procurement management, stakeholder engagement, and environmental and social impact assessment are being revolutionized by the Corporate Sustainability Reporting Directive (CSRD) and the soon-to-be Corporate Sustainability Due Diligence Directive (CSDDD).

By introducing the concept of double materiality, the CSRD mandates that companies report on both their financial performance and the wider consequences for sustainability. In line with the ESRS and the SDGs 12, 13, and 17, this approach advocates for thorough and open disclosure. Companies, however, confront significant implementation obstacles, such as disjointed data systems, irregular reporting procedures, and a lack of digital infrastructure for traceability and verification, as covered in Chapter 2. Concurrently, procurement has changed from being primarily a cost-focused function to becoming a strategic tool for promoting sustainability. As demonstrated in Chapter 3, it is now essential to follow forest certification standards (e.g., FSC and PEFC), track Scope 3 emissions, involve suppliers, and use lifetime costing. According to CSRD and CSDDD, sustainable procurement is now a required practice included into corporate responsibility frameworks rather than a best-practice that is optional.

Digitalization and innovation are also crucial facilitators of sustainable procurement. Investments in supplier monitoring tools, ESG data platforms, and enterprise resource planning (ERP) systems are becoming more and more necessary to comply with CSRD and CSDDD. Although these expenditures have upfront costs, they facilitate openness, aid in risk reduction, and foster long-term effectiveness.

One subject that keeps coming up in the theoretical chapters is how important stakeholder engagement is. When creating sustainability plans and reporting systems, CSRD and CSDDD require that a variety of stakeholder groups be taken into account, including suppliers, investors, employees, regulators, and civil society. This change is rooted in Freeman's (1984) stakeholder theory and represents a shift in supply chain governance toward more inclusive, value-oriented practices. As the thesis moves into its empirical phase, Company X's sustainability strategy will be assessed using the theoretical framework described above. The following chapters will evaluate the company's handling of CSRD responsibilities, operational difficulties, stakeholder involvement, and CSDDD preparation.

5 Research Methodology

This chapter describes this thesis's research strategy, data gathering methods, sampling standards, data processing techniques, and ethical considerations. The methodological approach was created to guarantee academic integrity, openness, and ethical adherence when examining how the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) affect the industry's procurement procedures for engineered wood products. Based on well-established research literature (Yin, 2018; Saunders et al., 2019), the methodological framework combined desktop research, document analysis, and qualitative interviews to increase reliability through triangulation.

5.1 Research Design

According to Bhandari (2021), a research design guarantees that the study's goals are fulfilled in a valid and dependable way and offers a systematic approach to answering research questions. This thesis uses a mixed-methods approach to fully comprehend the ways in which the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) affect procurement procedures in the engineered wood products sector. A comprehensive picture of the directives' consequences is captured by the study through the integration of qualitative and quantitative approaches.

According to Yin (2018), the research employed a case study design, which is especially appropriate for investigating modern phenomena in a real-world setting. As a result, Company X's procurement procedures under regulatory pressure could be thoroughly examined. Instead of producing statistical generalizations, the study's primary focus was on understanding practices, attitudes, and contextual nuances, hence it took a qualitative approach (Creswell & Poth, 2018). In a particular corporate setting, this enables deep, comprehensive insights into how CSRD and CSDDD are changing cost structures, supplier relationships, and procurement strategies.

A company in the engineered wood sector, Company X, was chosen to serve as the main example. In order to demonstrate the changing dynamics of sustainable procurement, the study examines stakeholder viewpoints and real-world behaviors through this scenario.

Interviews and data analysis are used in the quantitative component to quantify the financial effects of CSRD, especially with relation to investments and procurement-related expenses. This mixed-methods approach makes it possible to combine objective observations with empirical data, offering a thorough and nuanced knowledge of the difficulties and changes the business is facing.

5.2 Data Collection and Sampling

Collecting information for analysis and interpretation is made possible by data collection, which is an essential part of research. Methodical processes are used to gather trustworthy and accurate data to aid in knowledge creation, hypothesis testing, and decision-making (Hassan 2024a.)

Professionals from Company X and its group firms who worked in finance, sustainability, and procurement participated in semi-structured interviews to gather primary data. Because of its adaptability in revealing intricate details while maintaining theme comparability, this approach was chosen (Bryman & Bell, 2015). Anonymity was preserved by coding, and interview aids were customized for various roles (Appendices 1-3).

A desktop research method was used to gather secondary data, which included publicly accessible sustainability disclosures, financial statements, supplier audit records, and internal purchase reports. By providing documented evidence and real-time industry practices, desktop research promotes the validation of primary findings and improves contextual comprehension, as suggested by Saunders et al. (2019).

5.2.1 Public Reports and Procurement Records

Procurement reports, sustainability plan materials, audits, financial statements, and CSRD compliance papers were among the many records that Company X has made public to the everyone. Important background data and a thorough contextual understanding of the business's sustainability and procurement practices were provided by these publications. The data collected from these sources was essential for examining how the Corporate Sustainability Reporting Directive (CSRD) affected investment choices and procurement expenses.

Utilizing internal reporting guaranteed that the information was pertinent to the goals of the study and specific to the organization. However, there were significant ethical questions highlighted by the use of such delicate material. Strict confidentiality agreements were used to give access to these papers, and the General Data Protection Regulation (GDPR) of the European Union was followed while handling the data. All sensitive company data was anonymized whenever feasible to protect privacy and guarantee ethical research techniques. Data was also kept in a safe location to guard against unwanted access and preserve its integrity (Cooper, 2016).

5.2.2 Interviews

Due to its ability to provide in-depth insights into the viewpoints and experiences of professionals in the field, semi-structured interviews were the main method of data gathering used in this study

(Bhandari 2021). Participants were given the opportunity to ask pointed, in-depth questions during semi-structured interviews, which allowed them to go into great detail about their opinions on the Corporate Sustainability Reporting Directive (CSRD) and how it has affected procurement procedures.

Based on their direct engagement in CSRD implementation and procurement decision-making, representatives from Company X and its parent Group were purposefully chosen for three interviews. Interviewees consisted of:

- A Manager of the Carbon Footprint (Group Sourcing & Logistics)
- An expert in financial reporting and group sustainability
- An ESG Manager in Financial Reporting and Group Sustainability).

Diverse perspectives on sustainable integration, reporting difficulties, and procurement reforms prompted by EU law were offered by their positions. In April 2025, interviews were conducted remotely using Microsoft Teams, with each session lasting between 20 to 30 minutes. A semi-structured interview guide was used to allow for participant elaboration while preserving thematic coherence. Due diligence on suppliers, the effects of procurement costs, and ESG integration were among the main subjects covered.

Participants got thorough information sheets (see Appendices 4 & 5) detailing the study's goals, methods, possible dangers, and advantages because ethical considerations were given first priority. Before each interview, informed permission was acquired, and they were made aware of their rights, which included the ability to withdraw at any time and the opportunity to participate voluntarily (Allmark et al. 2009; Halej 2017).

The impact of CSRD on investments, procurement costs, and operational effectiveness was quantitatively evaluated by distributing surveys to a larger sample of business experts inside the Group. Both closed-ended and open-ended questions were included in the surveys to get a wide variety of answers. Data confidentiality, respondent privacy, informed consent, and avoiding misleading practices in survey design and implementation were among the ethical considerations for surveys (Bhandari 2021; Hassan 2024b).

5.3 Data Analysis Methods

Using thematic analysis, a qualitative method designed to find recurrent themes and patterns in the gathered data, interview transcripts and internal corporate records were examined. Key topics including supplier management, Scope 3 emission tracking, procurement innovation, and compliance costs were found through the use of vertical and axial coding in the research. Thematic analysis will be used to find recurring themes and patterns in the qualitative data collected from the

interviews. Using this technique, data is formatted and related responses are categorized to reveal insightful information (Labs 2024.)

This study only used qualitative methodologies, even though data analysis typically includes computational, mathematical, and statistical procedures to turn raw data into usable insights (Hassan 2024b). In order to prioritize qualitative depth and interpretative knowledge over statistical generalization, the final research design did not use any quantitative procedures or questionnaires. Maintaining participant confidentiality and guaranteeing data representation accuracy were ethical considerations during the qualitative analysis process (Briody n.d.).

Using thematic content analysis, interview transcripts were categorized based on CSRD issues such procurement transparency, double materiality, and Scope 3 emissions. Practices and regulatory requirements were compared at the same time using information from internal reports and desktop research. According to Flick (2018), this triangulation technique improved the study's internal validity by cross-checking various data sources.

5.4 Ethical Considerations

All participants' autonomy, confidentiality, academic integrity, equity, transparency, and respect were guaranteed by the core ethical standards that this study complied with. Participants were given thorough information in an easy-to-understand style regarding the objectives, methods, possible dangers, and advantages of the study. They gave their free and informed permission, preserving their autonomy and granting them the freedom to leave the study at any moment without being coerced or subjected to undue influence (US Department of Health and Human Services n.d.; Hassan 2024c).

Prioritizing privacy and confidentiality meant that all information gathered was securely stored, anonymized whenever feasible, and only the researcher and other authorized personnel had access (University of Kentucky n.d.; Columbia University n.d.; Elsevier n.d.). The thesis adviser and participants were informed openly about the researcher's work at Company X, resolving any potential conflicts of interest and enhancing the research's objectivity and legitimacy (George 2022; H2020 Integrity n.d.; National Institutes of Health 2016).

Throughout the interviews, the psychological and physical aspects of participant safety and well-being were regularly observed. Participants' dignity and well-being were maintained throughout the research process by providing them with clear notice of their right to withdraw if they were distressed (University College Dublin 2021; University of New Mexico n.d.; King n.d.).

Before data collection, the research protocol was ethically approved by the thesis advisor, confirming compliance with academic and institutional ethical standards and adding to the validity and reliability of the study findings (Nowell 2009; UKRI n.d.).

6 Case Study: Company X

This chapter examines how Company X has adapted its procurement procedures to comply with new sustainability laws, particularly the Anticipated Corporate Sustainability Due Diligence Directive (CSDDD) and the Corporate Sustainability Reporting Directive (CSRD). Based on three semi-structured interviews with key Group Services personnel and public documentation, the findings provide a grounded, practitioner-level perspective on implementation progress, challenges, and goals. Appendices 1-3 contain the interview questions, while Appendices 4-5 contain the instruments for informed consent. Appendix 6 contains the interview background and interviewee details.

6.1 Company Overview

In a major global forest industry group, Company X is an essential subsidiary that specializes in engineered wood products, especially for construction, and industrial uses. Company X oversees product development, manufacturing, and processing through a vertically integrated supply chain. All operations are heavily reliant on sustainability, which is driven by a comprehensive 2030 agenda that prioritizes fossil fuel-free production, regenerative forestry, biodiversity enhancement, and complete raw material traceability.

Like all of its subsidiaries, Company X has centralized procurement procedures at the group services level. The execution of forest certification, contract management, emissions monitoring, and supplier audits are all made easier by this centralization. The company's operational quality and sustainability credentials are reinforced by certifications like ISO 50001 for energy management, ISO 14001 for environmental management, ISO 9001 for quality control, ISO 45001 for occupational health and safety, and FSC (Forest Stewardship Council) and PEFC (Program for the Endorsement of Forest Certification) (Company X 2024a; Company X 2024b.).

The Group is owned by the Cooperative, a larger cooperative governance structure that includes Company X. The Cooperative has about 100,000 owners, operates across several business divisions, and maintains a significant global presence. Plywood, paperboard, and engineered wood products were the Group's main sources of income in 2024. Making strategic investments in sustainable innovations shows its dedication to moving away from fossil fuels and toward cutting-edge, environmentally friendly materials (Company X 2024a; Company X 2024b.)

Environmental measurements and comprehensive operational data are depicted in Figure 10, underscoring the intricacy of sustainability management and adherence to the Corporate Sustainability Reporting Directive (CSRD). Global production sites' extensive use of ISO, FSC, and PEFC

certifications highlights Company X's commitment to responsible supplier management, ethical sourcing, and environmental stewardship.

Country	Estonia	Finland	Finland	Finland	Finland	United Kingdom	United Kingdom	United Kingdom		
EMPLOYEES										
Number of employees	225	149	488	361	45	264	40	0	128	1,700
TRIF	15	0	11	4.5	0	14	0	26		8.7
LTAIF	12	0	10	4.5	0	14	0	0		7.5
PRODUCTION, 1,000 m³										
Wood products	Plywood	LVL	LVL and plywood	Plywood	Veneer	Further processing	Further processing	Further processing		
Production	39	78	200	102	59	163	85	7.9		734
MANAGEMENT SYSTEM										
ISO 9001	x	x	x	x	x	x	x	x		
ISO 14001	x	x	x	x	x	x	x	x		
ISO 45001	x	x	x	x	x	x	x	x		
ISO 50001	x	x	x	x	x					
CHAIN OF CUSTODY										
PEFC	x	x	x	x	x	x	x	x		
FSC	x	x	x	x	x	x	x	x		
EMISSIONS TO AIR, t										
Biogenic carbon dioxide (CO ₂), Scope 1	0	28,388	83,685	88,374	0	0	0	0		200,446
GHG emissions (CO ₂ e), Scope 1	0	2,591	1,250	1,336	0	568	216	75		6,035
Sulphur (SO ₂)	0	1.1	1.9	0.2	0	0	0	0		3.2
Nitrogen oxides (NO _x)	0	17	91	81	0	0	0	0		189
Particles	0	2.4	2.3	14	0	0	0	0		19
EMISSIONS TO WATER, t										
Chemical oxygen demand (COD)	0	1.7	52	1.6	0	0	0	0		55
Biological oxygen demand (BOD)	0.01	0.01	29	3.7	0.007	0	0	0		33
Phosphorus, total	0.001	0.001	0.005	0.01	0	0	0	0		0.018
Nitrogen, total	0	0	0.05	0.03	0	0	0	0		0.1
Suspended solids, total	0.01	0.01	0.3	0.4	0.007	0	0	0		0.8
WATER USE, 1,000 m³										
Water withdrawals	5.8	140	258	1,084	20	0	0.4	0		1,507
Wastewater discharges	12	12	35	44	8.0	0	0	0		112
WASTE AND SIDE STREAMS, t										
Utilised side streams and waste	24	512	1,694	12,539	73	909	152	40		15,943
Landfill waste	0	0	2.0	20	26	0	0	0		48
Hazardous waste	124	300	283	245	1.0	0	0	0		953

Figure 10, Operational and Environmental Overview of Company X's Production Sites (Company X 2024a).

All of these certifications and procedures help Company X stay in compliance with existing and future regulatory frameworks, such as the CSRD and the Corporate Sustainability Due Diligence Directive (CSDDD), which strengthens its strategic emphasis on energy efficiency, quality, environmental sustainability, and employee well-being.

6.2 Results of the Interviews

Company X has included sustainability into its procurement processes in accordance with the Corporate Sustainability Reporting Directive (CSRD) in order to improve environmental responsibility, accountability, and transparency. Three Group Services department representatives—an ESG Specialist, an ESG Manager, and a Carbon Footprint Manager—were interviewed in order to obtain a better knowledge of how these practices are carried out and tracked. The interview questions are in Appendices 1, 2, and 3 and the associated participant consent forms are in Appendices 4 and 5. Each interviewee's role, department, and interview date are revealed in Appendix 6.

6.2.1 Scope 3 Emissions and Supplier Collaboration

Obtaining supplier-level Scope 3 emissions data, which is essential for CSRD compliance, continues to present difficulties, according to a Company X ESG specialist (Interviewee A) in charge of integrating sustainability data across the reporting and procurement teams:

"For raw materials and logistics, we request supplier-specific emissions data, but it's still very unstructured—mostly emails and Excel templates."

Inefficiencies and irregularities in emissions reporting have resulted from the current method, which depends on human data processing and decentralized communication. Although EcoVadis, a sustainability assessment program that may automate and streamline the collecting of carbon data, is subscribed to, its features are still mostly unused. The absence of a centralized system restricts the company's capacity to fully utilize supplier collaboration for sustainability improvements and continues to impede efficient data management.

6.2.2 Integration of Emissions Data into Procurement

The Interviewee C noted that although Company X has made strides, the official procurement A significant discrepancy between the company's sustainability goals and procurement processes was identified by interviewee C (Carbon Footprint Manager):

"The official procurement process descriptions don't really include these emission metrics; they are more relevant to reporting."

This reveals a structural discrepancy between sustainability reporting and procurement decision-making. Even though Company X has made strides in measuring emissions, the incorporation of carbon data into routine procurement processes is still lacking. As the CSRD's regulatory pressures change, the corporation is actively trying to bridge this gap by integrating emissions data more thoroughly into procurement processes.

Mitigating climate change and reducing emissions					
Energy efficiency index, base year 2018	90	-	-	112	109
Fossil-based carbon dioxide emissions (Scope 1 + Scope 2 market-based), t	0	-	-	4,027	67,068
Fossil-free raw materials and packaging materials, share of dry tonnes, %	100	-	-	96	96

Figure 11, Emissions and Fossil-Free Material Share in Case Company's Operations (Company X 2024a).

The company's usage of fossil-free raw and packaging materials, along with recent increases in its Scope 1 and 2 emissions, further highlight the need of matching procurement with emissions goals. While the company's use of fossil-free materials remained consistent at 96% of dry tonnes, its emissions of carbon dioxide derived from fossil fuels increased significantly, from 4,027 tonnes to 67,068 tonnes, as illustrated in Figure 11. The scope and urgency of incorporating sustainability measures into procurement procedures are demonstrated by these numbers.

6.2.3 Digital Infrastructure and ERP Modernization

ESG Specialist Interviewee B discussed the persistent shortcomings in Company X's digital infrastructure, specifically with regard to gathering sustainability data:

Despite paying for the [EcoVadis] tool, we haven't utilized all of its capabilities yet. The majority of data collecting is still done by hand.

Even with access to EcoVadis, the business still collects supplier data mostly through manual methods. This underutilization is indicative of a larger issue with successfully incorporating digital tools into procurement processes (Interviewee C 2025). Further impeding the development of automated, real-time data reporting is the lack of investment in supplier data interfaces.

Company X is currently engaged in extensive ERP (Enterprise Resource Planning) renewal initiatives with the goal of integrating sustainability criteria, like carbon emissions data, directly into procurement dashboards and raw material profiles in order to eliminate these inefficiencies. The purpose of these modifications, which include the deployment of SAP systems, is to facilitate CSRD compliance and improve operational effectiveness.

ERP renewal process

The consolidated financial statement is based on extensive number of data flows from multiple IT systems. The group has ongoing renewal process for IT systems, which will take several years to finish.

ERP implementation and incoherent system environment causes risks relating to access and change management, consequently the ERP renewal process is determined as a key audit matter.

The first industrial deployment of information systems was carried out in Wood Products Industry in January 2025. We have monitored the preparation and testing phases of the deployment.

As a part of testing the current ERP systems, our audit procedures focused on the reconciliation and approval controls as well as on evaluating the administration of access rights.

Figure 12, ERP System Audit Findings from External Auditor's Report (Company X 2024a).

The ERP renewal process has been highlighted as a major audit issue, as seen in Figure 12. Data from many IT systems is used to create the consolidated financial statement, and its incoherence poses problems for access and change management. In January 2025, the first ERP deployment occurred in the Wood Products Industry unit. Both the planning and testing stages have been observed by external auditors, who have paid particular attention to access rights management, approval controls, and reconciliation. The audit's conclusions emphasize how important ERP modernization is to maintaining correct data flows and adherence to changing sustainability standards.

6.2.4 Anticipated Impact of the CSDDD on Procurement

Noting a substantial change in sustainability responsibilities, interviewee C emphasized the impending legislative evolution anticipated under the Corporate Sustainability Due Diligence Directive (CSDDD):

"Due to CSDDD, we will most likely need to set absolute Scope 3 reduction targets as opposed to merely intensity-based ones. Procurement will be most impacted at that point".

The company's reporting efforts have been mostly driven by the Corporate Sustainability Reporting Directive (CSRD) thus far, but CSDDD is expected to add another level of enforceability. It is probable that supplier-level responsibility and the incorporation of sustainability provisions in procurement contracts will be necessary to transition from optional or intensity-based goals to required, quantified emissions reductions. Procurement is therefore anticipated to have a greater strategic role in long-term sustainability planning and regulatory compliance..

6.2.5 Challenges in Supplier Engagement

Inconsistency in supplier data collecting was one persistent problem brought up in the interviews. Interviewee A, an ESG specialist, explained the difficulty:

"Although some providers provide superior data, some do not. There have been times when we've had to remind them repeatedly."

This inconsistency puts additional strain on procurement teams and makes it difficult to meet the requirements of the Corporate Sustainability Reporting Directive (CSRD). Scalability and real-time verification possibilities are further limited by the ongoing reliance on manual data collection. While suppliers are not completely opposed to the new reporting requirements, there is a wide range in their preparedness.

These difficulties highlight the need for engagement tactics that are more automated and structured. In addition to pushing for increased accountability and transparency in its supply chain, Company X is also subjecting itself to more stringent internal safety and social standards.

Respecting everyone and doing the right thing				
Anonymous recruitment for vacancies open to all, %	100		100	98
Women in management positions, %	>30		13	15
Promoting safety and wellbeing at work				
Total recordable incident frequency, own employees (TRIF)	0		8.7	12
Employee commitment	AAA		A	A

Figure 13, Social Responsibility and Safety Performance Metrics of the Company X(Company X 2024a).

These internal measures, including workplace safety (TRIF), employee engagement, gender diversity in management, and anonymous recruiting rates, are highlighted in Figure 13. While safety metrics like the Total Recordable Incident Frequency (TRIF) show improvement but still require work, women in management roles, for instance, continue to fall short of the target (>30%). As a sign of increasing alignment between internal and external sustainability performance, these internal criteria are starting to mirror the same requirements that the business has for its suppliers.

6.2.6 Organizational Friction

The Carbon Footprint Manager, interviewee C, admitted that a major obstacle to completely incorporating sustainability into procurement procedures is still cross-functional misalignment:

"Procurement and reporting are still run separately. It takes time to understand what is required and to align goals".

Although the necessity for departmental cooperation has increased since the CSRD was implemented, reporting and procurement still operate independently. This instability delays the incorporation of procurement into more comprehensive ESG plans and makes it more difficult to generate consistent sustainability measures.

In response to these challenges, Company X has initiated the establishment of cross-functional working groups with the objective of standardizing procurement procedures and sustainability metrics. These initiatives are consistent with more general patterns noted in IQ4, where a hindrance to the advancement of sustainable procurement was commonly highlighted as cross-departmental collaboration.

Resource efficiency and sustainable production					
Reduction in process water use per produced tonne from the 2018 level, %	-35	-	-	-	-
Process waste delivered to landfills, t	0	-	-	0	0

Figure 14, Resource Efficiency and Waste Reduction Performance (Company X 2024a).

Water efficiency and garbage avoidance are two examples of internal environmental performance metrics that are highlighted in Figure 14. These measures set the standard for sustainability expectations across the value chain and show the company's internal dedication to resource-efficient, streamlined processes, even though they are not directly related to supplier evaluation.

Innovation and open-minded cooperation and 7. The significance of forest-based bioeconomy to society					
Ethics index	100			78	-
Traceability of raw materials, share of total purchases, %	100			88	86
Share of certified wood/wood fibre, %	>90			-	-
Suppliers' commitment to the Supplier Code of Conduct, share of total purchases, %	100			98.8	98.5
Supplier assessments and audits of core suppliers, %	100			74	62

Figure 15, Consolidated Performance Indicators Relevant to Procurement and CSRD Readiness (Company X 2024a).

Company X's CSRD readiness is shown by the consolidated procurement-related metrics shown in Figure 15. Metrics like supplier code of conduct compliance, the percentage of certified wood, raw material traceability, and key supplier audits show how procurement procedures are becoming more and more linked to sustainable performance. The company's overall strategy for coordinating environmental responsibility, ethical sourcing, and certifications with changing regulatory requirements is summed up by these numbers.

6.3 Conclusion

In terms of incorporating sustainability into procurement, Company X has made significant advancements, especially in the areas of supplier involvement, emissions tracking, and ESG

reporting, especially in accordance with the Corporate Sustainability Reporting Directive (CSRD). Early initiatives have shown a strong commitment to transparent and responsible sourcing by bringing procurement practices into line with reporting standards.

True integration, nevertheless, is still being worked on. A number of implementation issues still plague the organization, such as disjointed workflows, a lack of use of digital technologies like EcoVadis, and uneven supplier preparedness. Furthermore, there are constant challenges to smooth execution due to the institutional and cultural misalignment between sustainability and procurement processes.

By requiring the direct integration of sustainability indicators into sourcing and contract management and imposing enforceable supplier-level accountability, the forthcoming execution of the Corporate Sustainability Due Diligence Directive (CSDDD) is anticipated to hasten this transition. The implementation of scalable, real-time data collecting and verification will necessitate more investment in digital infrastructure, including ERP systems.

The experience of Company X is indicative of a larger reality in the industry: many businesses in the engineered wood sector and beyond are still in the early phases of integrating sustainable compliance into their procurement processes. In the future, attaining quantifiable, verifiable sustainability results will require a combination of strong digital systems and enhanced cross-functional cooperation, particularly as regulatory demands for Scope 3 transparency and due diligence keep growing.

The following chapter will examine these results in light of important sustainability ideas and go over their wider ramifications for engineered wood sector procurement procedures.

7 Analysis and Discussion

The main research question in this chapter is: How does the Corporate Sustainability Reporting Directive (CSRD) impact the efficacy and sustainability of procurement practices in the industry for engineered wood products? The analysis uses the information gathered from three semi-structured interviews conducted at Company X and integrates policy tools like the proposed Corporate Sustainability Due Diligence Directive (CSDDD) and the Sustainable Development Goals (SDGs), as well as theoretical frameworks like the Triple Bottom Line (Elkington, 1998) and Stakeholder Theory (Freeman, 1984).

7.1 Regulatory Pressure on Procurement

Traditionally driven by cost and efficiency, procurement is being transformed into a function based on sustainability, transparency, and strategic accountability by the Corporate Sustainability Reporting Directive (CSRD) and the soon-to-be Corporate Sustainability Due Diligence Directive (CSDDD). The procurement practices of Company X are under growing pressure to comply with ESG guidelines, traceability objectives, and emission reduction targets.

Interviewee A provided an example of this change:

"Every supplier must adhere to our Supplier Code of Conduct or have comparable principles at a comparable level."

Through the reinforcement of ethical sourcing and supply chain transparency, this emerging strategy directly supports SDG 12 (Responsible Consumption and Production). By 2024, for instance, 93% of Company X's packaging inputs may be tracked back to their nation of origin, demonstrating significant advancements in value chain transparency.

However, there are still operating difficulties in spite of these developments. Interviewee C pointed out a crucial misalignment:

"The official procurement process descriptions don't really include these emission metrics; they are more relevant to reporting."

This disparity emphasizes how procurement operations and sustainability data management need to be better integrated. It is challenging to scale or validate emissions data in real time because it is still primarily informal and dispersed, depending on emails and Excel spreadsheets.

Interviewee B highlighted how present processes are costly and inefficient:

"Manual procedures and fragmented data formats like Excel and PDFs make harmonizing information resource-intensive."

Despite implementation, the potential of digital technologies such as EcoVadis and ERP systems (like SAP) is still being fully leveraged. Digital platforms such as Power BI are being expanded, and efforts are being made to improve supplier data integration. Along with lowering human labor costs and facilitating supplier-level emissions tracking, these solutions are essential for enhancing compliance and risk oversight.

New supplier involvement initiatives, like biofuel-based logistics contracts and low-emission transportation pilots, have also been sparked by CSRD and set the stage for CSDDD compliance. The strategic role of procurement will be radically redefined under CSDDD, which will make supplier due diligence and enforceable sustainability criteria legal requirements.

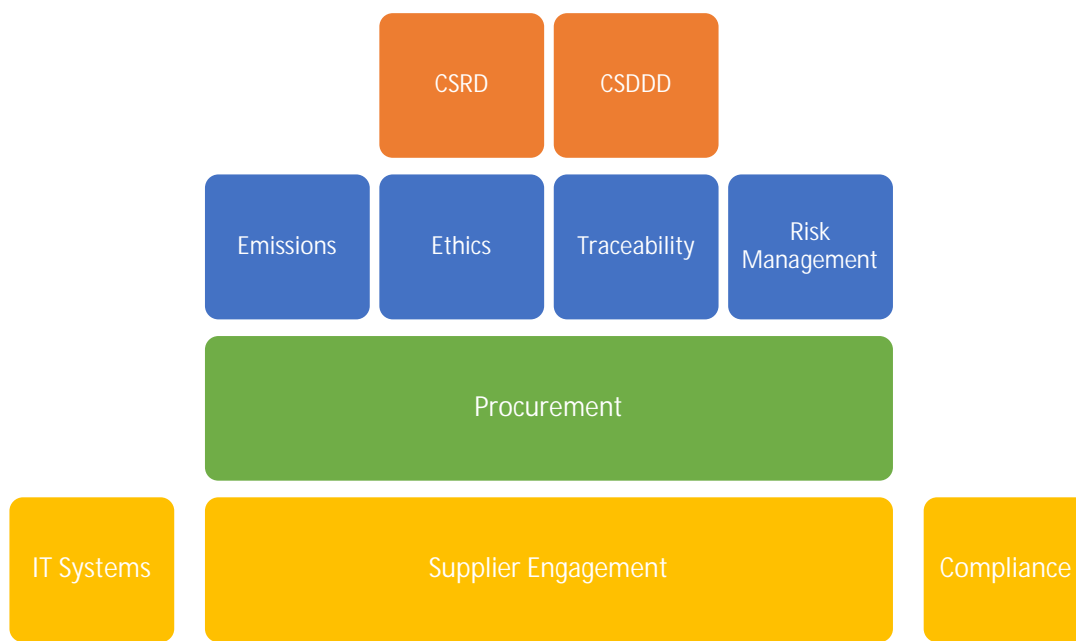


Figure 16, Multi-Pressure Model: How CSRD and CSDDD reshape procurement. Model developed by the author. Based on insights from CSRD/CSDDD legislative texts, stakeholder theory (Freeman, 1984), the Triple Bottom Line (Elkington, 1998), and interview data from Company X. Adapted with conceptual support from Deloitte (2024) and Chakraborty (2024).

This change is depicted using a multi-pressure model in Figure 16. At the highest level, CSRD and CSDDD apply regulatory pressure on the four main sustainability pillars of risk management, ethics, emissions, and traceability. These in turn influence procurement functions and interact with underlying enablers, including as IT systems, supplier interaction, and compliance infrastructure, that are necessary to satisfy the growing expectations of stakeholders and regulations.

7.2 Stakeholder-Specific Dynamics

Creating value for every stakeholder along the value chain is crucial, according to Stakeholder Theory (Freeman, 1984). By implementing ESG methods in procurement and forming cooperative supplier partnerships, Company X is actively operationalizing this notion. The CSRD and the soon-to-be CSDDD are two examples of the changing regulatory frameworks that are increasingly influencing these initiatives.

The expected transition from optional transparency to required accountability was emphasized by interviewee C:

"It is likely that CSDDD will require us to set absolute Scope 3 reduction targets instead than only intensity-based ones. At that point, procurement will be most impacted".

Procurement is becoming increasingly strategic and in line with stakeholder interests, ethics, and governance as a result of this legal evolution.

Company X is making headway with its suppliers. Interviewee A mentioned:

"About seven or eight key suppliers are now engaged in emissions conversations."

These collaborations, especially with businesses like VR-Group and Royal Wagenborg, show a shift toward collaboratively created climate goals that are consistent with SDG 17: Partnerships for the Goals. But supplier engagement is still not uniform. Interviewee B disclosed:

"While some suppliers provide good data, some do not. They've needed to be reminded more than once".

Different levels of digital maturity and preparedness for CSRD/CSDDD compliance are indicated by such disparities. The infrastructure to facilitate real-time ESG data sharing is lacking in many suppliers, and factory-level emissions reporting is still being standardized. This highlights the necessity of standardized interaction methods, scalable IT systems, and due diligence procedures.

Internally, CSRD has developed into a force for long-term strategy alignment and interdepartmental cooperation, replacing its previous role as a compliance instrument. Remarks from Interviewee B:

"Sustainability management has put the big picture into perspective."

Decisions around logistics and procurement are already being influenced by scope 3 targets, which are part of the company's 2030 sustainability roadmap and show alignment with SDG 13: Climate Action. The important influence areas, pertinent regulatory links, and observed impacts across different stakeholder groups are outlined in Table 12, which summarizes these stakeholder-specific dynamics.

Table 12, Summary of Stakeholder-Specific Dynamics Under CSRD and CSDDD

Stakeholder group	Key Influence Areas	CSRD/CSDDD link	Observed Impact at Company X
Suppliers	Emissions data sharing, sustainable practices, traceability, and compliance	CSRD: Value chain transparency CSDDD: Due diligence, risk mitigation	Joint climate targets, Scope 3 tracking, long-term partnerships
Investors & Financial Institutions	ESG disclosures, risk reporting, long-term value creation	CSRD: Double materiality & EU Taxonomy alignment	Integration of procurement KPIs into ESG reports; enhanced transparency for investment credibility
NGOs & Civil Society	Human rights, environmental risks, ethical sourcing	CSDDD: Stakeholder engagement, complaint mechanisms	Anticipation of due diligence obligations and stakeholder consultation practices
Customers & Clients	Demand for responsible sourcing, product transparency, and environmental labeling	CSRD: Scope 3 reporting CSDDD: Ethical value chains	Traceability systems and full ERP+ integration to serve reporting and consumer transparency needs
Employees & Internal Teams	Capacity-building, training, system improvements	Both: Governance obligations; sustainable internal practices	ERP+ development, sustainability-focused procurement training
Government & Regulators	Legal compliance, alignment with EU directives, and national sustainability targets	CSRD: Mandatory ESG reporting CSDDD: Due diligence legislation	Strategic alignment with current and upcoming regulatory timelines

7.3 Critical Reflections and Theoretical Integration

Although it is not without difficulties, Company X's procurement transformation serves as an example of how Stakeholder Theory (Freeman, 1984) and the Triple Bottom Line framework (Elkington, 1998) may be operationalized. Value creation is emphasized by stakeholder theory for all parties involved in the value chain, including suppliers, investors, NGOs, regulators, and customers, in addition to shareholders. As procurement decisions are increasingly influenced by a variety of external expectations beyond conventional cost or efficiency criteria, Company X is a prime example of this change.

At Company X, procurement has changed from a transactional role to a strategic platform for value generation. Supplier audits, capacity-building programs, Scope 3 emissions tracking, and joint climate targets all demonstrate a shift toward closer cooperation. Technologies like as SAP, EcoVadis, and Power BI are being used to enhance traceability, regulatory compliance, and emissions visibility. But as Interviewee A pointed out, a lot of these tools are still not fully integrated and are underutilized.

The goal of the company's ERP+ initiative is to instantly integrate Scope 3 data into procurement processes. A significant commitment to future-proofing procurement through automated auditability and strategic oversight is demonstrated by this endeavor. The project is still in its early phases, though, and Interviewee C identified a recurring problem:

"Procurement and reporting are still run separately. It takes time to align goals and comprehend requirements".

This internal misalignment raises the possibility that digital tools won't actually spur significant action, but will only be used for reporting purposes. The revolutionary potential of projects such as ERP+ may be hindered in the absence of strong cross-functional integration.

The Triple Bottom Line lens also reveals an imbalance: the social dimension, especially labor rights and community impact, is still underdeveloped at the procurement level, despite the environmental and governance pillars gaining popularity. Under the Corporate Sustainability Due Diligence Directive (CSDDD), which requires social impact assessments, grievance procedures, and enforceable supplier-level accountability, particularly in vulnerable regions, this gap will grow more significant.

Interviewee C agreed that this change will reinterpret procurement as an ethical governance tool:

"Stakeholder consultations, grievance procedures, and social impact assessments would all be mandated by the order".

However, there are several challenges associated with CSRD and CSDDD implementation. Concern was voiced by interviewee B regarding:

“Information harmonization is resource-intensive due to manual processes and fragmented data formats like Excel and PDFs”.

Due to their lack of digital infrastructure, small and medium-sized suppliers may unwittingly be at a disadvantage when it comes to meeting increasingly complicated ESG criteria. Literature cautioning that aggressive sustainability mandates may exacerbate inequality and impede change in upstream supply chains reflects this criticism.

However, it is becoming evident that procurement is a potent tool for systemic transformation. Company X is strengthening investor trust and improving ESG transparency through dual materiality reporting in line with the EU Taxonomy, supplier risk assessments, and FSC/PEFC certifications. This change is being further reinforced by consumer-facing demands for traceable, ethically sourced goods.

Ultimately, Company X's procurement strategy that is responsive to stakeholders directly advances the Sustainable Development Goals of the UN, especially SDGs 12 (Responsible Consumption and Production), 13 (Climate Action), and 17 (Partnerships for the Goals). A robust, forward-thinking, and governance-focused supply chain is being built by the organization by integrating digital traceability, ethical accountability, and regulatory alignment into procurement.

7.4 Conclusion

The Corporate Sustainability Reporting Directive (CSRD) has caused Company X's procurement procedures to undergo major operational, strategic, and cultural adjustments. These modifications include the implementation of Scope 3 emissions tracking, improved supplier engagement, and increased openness. From a transactional role, procurement is progressively evolving into a key component of sustainable governance.

But the shift is not yet complete. Automation at the system level is still in its infancy, and business unit integration is not uniform. Supplier capabilities differ greatly, digital solutions like EcoVadis are still underutilized, and data collection is frequently scattered. The effectiveness and scalability of procurement's contributions to sustainability are hampered by these restrictions.

Interviewee C provided a summary of the current period of transition:

"Some processes are more integrated than others."

It is anticipated that due diligence standards for both environmental and social implications would be institutionalized under the Corporate Sustainability Due Diligence Directive (CSDDD). This will

strengthen procurement's position and move it closer to becoming a fully integrated governance mechanism that can both advance long-term sustainability goals and ensure regulatory compliance.

With its supplier involvement and ESG policies, Company X is putting itself in a position to manage this changing regulatory environment while also advancing global objectives like SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals).

The case study ultimately shows that procurement needs to change to lead moral, robust, and forward-thinking supply chains, not only to comply with regulations.

7.5 Methodological Reflections & Ethical Considerations

This study is based on three semi-structured interviews with experts in the fields of finance, carbon management, and sustainability from Company X's Group Services division. The interviewees' varied areas of expertise, when combined with company statements, regulatory documents, and scholarly literature, offer a strong basis for analysis and conclusion, despite the small sample size.

Every interview lasted roughly thirty (30) minutes and was done remotely. Interviewees were referred to only by their professional jobs, informed consent was sought, and confidentiality was completely protected in accordance with ethical research guidelines. As mentioned before, Appendix 6 provides information about interviewee contexts and attributions, whereas Appendices 4 and 5 contain consent documentation.

Even though this is a single-case study, the insights it provides are relevant and useful, especially for businesses negotiating the CSRD's implementation and getting ready for the approaching CSDDD's more extensive requirements. The study provides insight into how procurement has changed strategically in a field that is heavily influenced by new sustainability laws.

8 Extending Beyond Company X

8.1 Summary of Findings

According to this research, the engineered wood products industry's procurement procedures are being actively changed by the Corporate Sustainability Reporting Directive (CSRD). From a transactional support role to a strategic tool for traceability, emissions reduction, and long-term risk management, procurement is changing at Company X. Despite being in the early phases of implementation, the organization has already achieved great strides through the use of digital tools like Power BI and EcoVadis, the enforcement of supplier standards of conduct, and the embedding of Scope 3 emissions tracking.

These advancements are in line with important global sustainability goals, especially SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action), and they reflect the larger CSRD principles of stakeholder accountability, transparency, and double materiality (European Commission, n.d.). Supply chains are becoming more sustainable and governance-focused as a result of the growing influence of ESG factors on procurement decisions. This integration promotes long-term cost-efficiency and risk reduction in addition to regulatory compliance, as recent research has shown (Lozano, 2022; PwC, 2024).

Additionally, the experience of Company X shows how the use of digital systems, cross-functional cooperation, and common supplier sustainability goals can provide a successful model for procurement transformation implementation. The implications of these findings extend beyond the engineered wood industry to other production sectors where compliance and environmental responsibility are becoming increasingly important.

Still, there are a number of structural issues. Significant obstacles include disparate levels of supplier digital maturity, manual data collecting, and fragmented reporting systems. The company's digital platforms are still not being used to their full potential, and many suppliers are still unable to satisfy CSRD regulations. These drawbacks highlight how urgently uniform metrics, a unified digital infrastructure, and organized supplier interaction are needed.

It is anticipated that the Corporate Sustainability Due Diligence Directive (CSDDD), which will move the regulatory emphasis from transparency to enforceable action, would quicken these changes in the future. In addition to reporting, it will impose legal requirements on businesses to show that they have taken reasonable steps to consider the social and environmental effects of their supply chain. Resolving existing inadequacies will be crucial to attaining complete compliance and creating robust, morally sound procurement procedures in the future.

8.2 Application to Other Industries

The forestry industry, which includes well-known certification programs like FSC and PEFC, is where Company X works, but the underlying regulatory pressures brought about by the Corporate Sustainability Reporting Directive (CSRD) and the upcoming Corporate Sustainability Due Diligence Directive (CSDDD) are independent of industry. An expanding number of industries, including textiles, construction, electronics/ICT, and agriculture, are implementing comparable instruments and governance frameworks to tackle related environmental, social, and governance (ESG) issues (Fairtrade 2016; OEKO-TEXT n.d.; Bluesign n.d.; GBRI Online n.d.; U.S. Green Building Council n.d.; RMI n.d.)

These industries have created certification systems that are similar to the sustainability assurance and traceability frameworks used in forestry. The textile sector, for instance, manages worker rights, chemical safety, and transparency through the usage of Fair Trade, OEKO-TEX, and Bluesign. The EU Taxonomy and CSRD's climate disclosures are in line with standards like BREEAM and LEED, which assess energy use, material sourcing, and carbon footprint in the construction industry. As for the electronics and ICT sector, it depends on the Responsible Minerals Initiative (RMI) to track down conflict minerals and reduce human rights threats in areas with high sourcing risk. Similarly, to guarantee pesticide control, biodiversity conservation, and ethical labor standards, the food and agriculture industry uses certifications like the Rainforest Alliance and GlobalG.A.P. Table 13 provides an illustration of these similarities (Fairtrade 2016; OEKO-TEXT n.d.; Bluesign n.d.; GBRI Online n.d.; U.S. Green Building Council n.d.; RMI n.d.)

Company X's approach provides a transferable model for other industries dealing with comparable regulatory demands, especially its use of supplier scorecards, cross-functional governance structures, and Scope 3 criteria. Adopting parallel processes, such as lifecycle analysis, third-party verification, and supplier interaction standards, can help sectors like ICT, transportation, energy, and public procurement to improve compliance and encourage sustainable innovation.

The forestry industry offers companies with less developed sustainability infrastructures a model thanks to its maturity in risk mapping, independent auditing, and multi-stakeholder collaboration. Furthermore, Company X is a great example of how businesses can achieve SDG 17 (Partnerships for the Goals) by establishing enduring, open, and accountable relationships with stakeholders, such as governments and non-governmental organizations, through their collaborative approach to establishing shared sustainability goals with strategic suppliers.

Table 13, Comparison of Sustainability Certification Schemes Across Sectors (Fairtrade 2016; OEKO-TEXT n.d.; Bluesign n.d.; GBRI Online n.d.; U.S. Green Building Council n.d.; RMI n.d.).

Sector	Certification Scheme	Key Focus Areas	Verification Method	Relevance to CSRD/CSDDD
Forestry	FSC/PEFC	Sustainable forest management, biodiversity, labour rights	Chain of Custody, third-party audits	Supports traceability, ESG disclosures (CSRD), and supplier due diligence (CSDDD)
Textile & Fashion	Fair Trade, OEKO-TEX, Bluesign	Labor standards, chemical use, environmental safety	Product labelling, independent certification	Helps assess human rights risks and environmental impacts under CSDDD
Construction	BREEAM/LEED	Sustainable materials, energy efficiency, carbon footprint	Project-based performance scoring	Aligns with CSRD climate disclosures and EU Taxonomy for sustainable activities
Electronics & ICT	Responsible Minerals Initiative (RMI)	Conflict mineral sourcing, traceability, human rights	Supply chain mapping, audit protocols	Addresses high-risk sourcing in CSDDD, supports risk identification and supplier action plans
Food & Agriculture	Rainforest Alliance, Global G.A.P.	Biodiversity, pesticide control, fair labour	Farm audits, environmental assessments	Contributes to Scope 3 emission tracking and social risk assessments

However, preparedness is still not uniform. While large enterprises can engage in automation and ERP system integrations, many SMEs encounter obstacles because of their expertise, cost, and level of digital maturity. The significance of scalable solutions, sector-wide capacity-building, and potentially regulatory support measures to avoid the exclusion or penalization of smaller actors is highlighted by this gap.

Ultimately, the fundamental approaches of traceability, governance, and proactive supplier involvement are applicable across all industries, even though sustainability risks and priorities vary by sector. The strategy employed by Company X offers a versatile yet practical framework for promoting ethical procurement across sectors as global supply chain rules change (Chakraborty, 2024; KPMG, 2024d).

8.3 Consumer Impact and Perception

The Corporate Sustainability Reporting Directive's (CSRD) increased transparency is having a greater impact on consumer behaviour. Businesses that can legitimately prove traceability and ethical sourcing, like Company X, are better positioned to gain the trust and loyalty of customers, especially those who are concerned about sustainability (Salenius, 2024; Apiday, 2024). Company X's dedication to transparency shows its clients that it does business with integrity, whether when using simplistic tools like Excel or more sophisticated platforms like Power BI. This strengthens the company's alignment with SDGs 12 (Responsible Consumption and Production) and 13 (Climate Action). This change represents the application of Stakeholder Theory (Freeman, 1984), which holds that customers are now active stakeholders whose changing expectations are influencing procurement priorities rather than passive recipients. Consumers of forestry products are reassured by FSC and PEFC certifications, and equivalent labelling programs in industries like fashion and food provide comparable transparency and reputational value.

This transparency-driven atmosphere does, however, come with concerns, most notably the possibility of greenwashing or flimsy compliance. Companies may comply with transparency regulations without implementing significant modifications to their procurement procedures. Both consumers and regulators will want proof, not just assertions, as EcoVadis and ERP dashboards become industry standards. Verifiable data and authenticity will increasingly determine whether sustainability messages are successful or fail.

This is how deeper organizational accountability is both reflected in and driven by consumer perception. Businesses that include sustainability into both their reporting and their operations will be in the greatest position to dominate a market that is influenced by knowledgeable and morally driven customers.

8.4 Sustainability as a Long-Term Strategy

Sustainability is becoming more and more acknowledged as a long-term strategic enabler as well as a legal necessity. According to industry surveys (Chakraborty 2024; PwC 2024a) and scholarly literature, businesses that incorporate ESG concepts into their procurement strategies are more inventive, resilient, and appealing to investors. This change is a reflection of a rising awareness that procurement that is ESG-aligned may lead to competitive differentiation, risk reduction, and value creation.

This trend is reflected in the current position of Company X. Innovation and long-term impact are being given priority in its changing procurement strategy, which is shifting away from a compliance-driven methodology. In addition to supporting climate goals (SDG 13), Interviewee C emphasized that choosing suppliers based on emissions performance enhances product quality and resource efficiency (SDG 12). Both operational excellence and environmental responsibility are promoted by this strategy.

This integrated approach is in line with Elkington's (1998) Triple Bottom Line concept, which promotes the concurrent pursuit of environmental, social, and financial objectives. From supplier interaction procedures to Scope 3 emissions tracking, Company X's procurement processes demonstrate how sustainability can be used as a lever for innovation, openness, and multi-stakeholder value creation.

Furthermore, this change is indicative of larger business trends observed in multinational corporations such as Microsoft and IKEA, who employ supply chain transparency and sustainability reporting not only to satisfy regulatory requirements but also to boost competitiveness and promote sustainable product development. Sustainability must be incorporated into fundamental governance and procurement processes in order to comply with future laws like the CSRD and CSDDD, according to EFRAG (2023).

In the long term, the example of Company X shows how strategically integrating sustainability helps businesses to forecast regulatory requirements, satisfy stakeholder expectations, and spearhead systemic change throughout their value chains.

8.5 Future Outlook

With the introduction of more demanding requirements for ESG disclosures, due diligence, and value chain accountability, the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) will keep developing. Sector-specific benchmarks, harmonized Scope 3 emissions accounting, and more stringent audit criteria are expected

to be included in future CSRD amendments. At the same time, the CSDDD will mandate that companies include social and environmental due diligence directly into supplier contracts and procurement procedures, moving sustainability beyond reporting to legally binding action.

A proactive, digitally empowered approach is necessary for businesses to get ready for this next stage. Important pre-actions consist of:

- Establishing the absolute Scope 3 emissions targets that go beyond intensity-based measurements,
- requiring ESG provisions in procurement policies and supplier agreements,
- extending digital sustainability platforms and ERP systems, incorporating blockchain and AI integration (Synesgy 2024; The CSRD Compass 2025).,
- Industry-wide cooperation for standardized ESG benchmarks and shared supplier audits.

Digital, adaptable, and cooperative procurement processes are essential for the future as sustainability data grows more detailed and legal requirements rise. Cross-functional integration and cultural shifts will be necessary in addition to technology advancements for the transition.

With respect to significant knowledge gaps, further research is required, especially in:

- SMEs' preparedness to meet CSRD and CSDDD regulations
- The long-term sustainability programs' return on investment (ROI)
- Sector-specific approaches for ESG maturity and benchmarking

The experience of Company X illustrates this transition's potential as well as its difficulties. Although it is currently in the process of integrating sustainability and procurement systems, the company's efforts, including ERP integration, supplier involvement, and Scope 3 tracking, show a strong commitment to future-proofing operations.

This example shows that even in supply chains with a lot of resources and a worldwide distribution, sustainable integration is achievable. But it also emphasizes how fluid the future is and how ongoing regulatory clarification, stakeholder collaboration, and systems thinking are all necessary.

As the lines between strategy, ethics, and compliance continue to blur, procurement is evolving into a crucial function for determining how businesses will operate in a stakeholder-driven, climate-constrained economy. SDGs 12 (Responsible Consumption and Production), 13 (Climate Action), and 17 (Partnerships for the Goals) can all be aligned with procurement through Company X's growing model, which eventually connects supply chain strategy with global responsibility and regulatory compliance.

9 Conclusion

The main conclusions of the study, which focused on Company X as a case study and looked at how the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) are changing procurement procedures in the engineered wood products sector, are outlined in this last chapter. The study examined the relationship between long-term strategic planning, cost-effective supply chain management, and legal compliance. It found that sustainability requirements are changing procurement from a transactional role to a strategic value-creating tool.

The thesis is concluded in this chapter by:

- Providing an overview of the key research findings and their connections to the SDGs, triple bottom line, and stakeholder research
- Offering strategic suggestions to businesses getting ready for CSRD and CSDDD compliance
- Assessing the research design and methodology's validity and limitations
- Providing a subjective assessment of the author's development as a professional and learning objectives during the project

Thus, it connects the academic, practical, and personal aspects of the thesis, highlighting the changing role of procurement in creating supply chains that are ethical, sustainable, and future-proof.

9.1 Summary of Findings

According to the results of this thesis, the Corporate Sustainability Reporting Directive (CSRD) and the soon-to-be Corporate Sustainability Due Diligence Directive (CSDDD) are not just compliance frameworks; rather, they are driving strategic change in procurement, especially in the sector of engineered wood products. Nowadays, procurement is not only seen as an operational, cost-driven role. On the contrary, it has become a strategic tool for attaining long-term regulatory harmonization, transparency, and emissions reduction as well as stakeholder confidence.

This change in attitude and practice is demonstrated in the case study of Company X. A growing procurement department that balances compliance and value creation is demonstrated by the company's proactive alignment with CSRD, integration of ESG measurements into procurement KPIs, and piloting of digital solutions like EcoVadis, ERP platforms, AI, and blockchain.

Figure 16 illustrates these trends and provides a contextual framework for comprehending procurement transformation under CSDDD and CSRD. The Figure demonstrates how pressure from EU

regulations causes a strategic change in procurement, resulting in new procedures, industry-wide recommendations, case-specific applications, and long-term effects like competitive advantage, robust supply chains, and regulatory clarity.

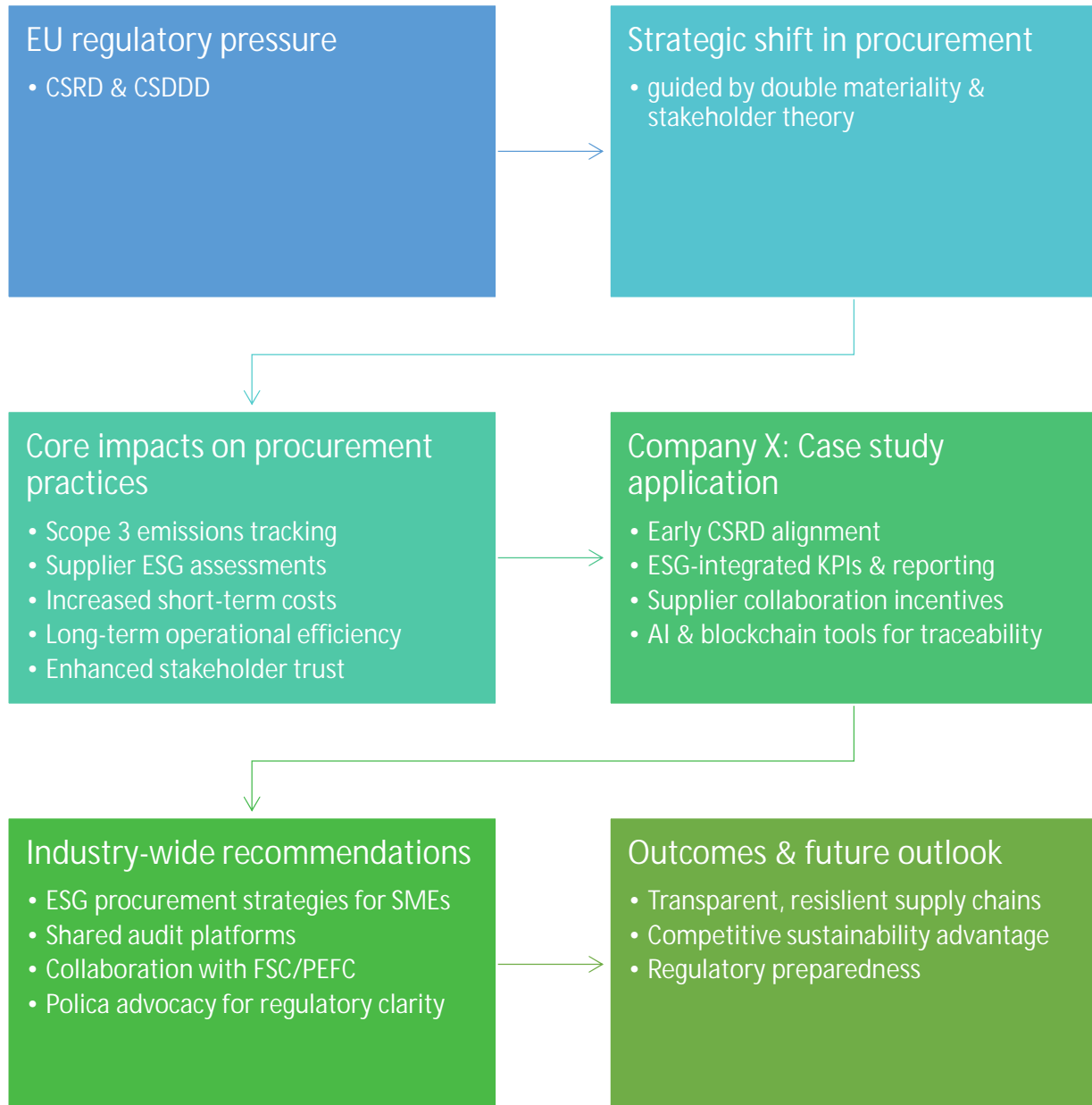


Figure 16, Procurement transformation under CSRD & CSDDD: Contextual framework.

Four key findings from the study were as follows:

1. **Nowadays, procurement and sustainability are closely related.** Third-party certification programs like FSC and PEFC, supplier ESG evaluations, and Scope 3 emissions tracking are important procedures that promote trust and compliance.

2. Improved auditing practices, enhancements to digital infrastructure, and increased supplier interaction are **increasing short-term procurement expenses**. Nevertheless, these costs result in long-term improvements in reputational value, legal risk reduction, and operational efficiency.
3. **The Double Materiality** principle and **Stakeholder Theory** are increasingly influencing procurement choices. Businesses are now expected to take into account **impact materiality**, or how corporate operations influence society and the environment, as well as **financial materiality**, or how sustainability affects business success.
4. For sustainable practices to be scalable, **technology is essential**. Real-time traceability, automated compliance, and better decision-making all depend on the integration of tools like **ERP, AI, and EcoVadis** dashboards, even though these are still in the early stages of optimization.

9.2 Recommendations

To achieve the Sustainable Development Goals (SDGs) of the UN, especially SDGs 12 (Responsible Consumption and Production), 13 (Climate Action), and 9 (Industry, Innovation, and Infrastructure), strategic procurement is essential. Both Company X and industry stakeholders must transform procurement into a tool for long-term impact, innovation, and compliance as regulatory constraints from the Corporate Sustainability Reporting Directive (CSRD) and Corporate Sustainability Due Diligence Directive (CSDDD) increase at an accelerating rate.

Collectively, these suggestions seek to establish procurement as a strategic tool for sustainability, innovation, and competitive advantage in a changing global regulatory environment, rather than merely as a component of compliance.

9.2.1 Company X

Expand Supplier Cooperation.

Along with launching collaborative emissions reduction projects with important suppliers, Company X ought to implement incentive-based ESG scorecards. Through these initiatives, procurement procedures will be more in line with SDGs 13 (Climate Action) and 12 (Responsible Consumption and Production). Along the value chain, co-developing circular economy projects can also stimulate innovation and produce quantifiable sustainability effects.

Promote the integration of digital technology.

Blockchain technology investments are advised to improve supply chain traceability from product to source. The automatic gathering and validation of Scope 3 emissions data will be made possible by the expansion of AI-driven ERP systems. These technologies help ensure that CSRD reports are accurate and get the business ready for future CSDDD compliance.

Revise the frameworks for procurement contracts.

The CSRD and CSDDD requirements should be formally incorporated into Company X's supplier contract templates. Clauses requiring environmental due diligence, open data exchange, and the formation of sustainable long-term partnerships should be included in contracts.

Align sustainability goals with procurement KPIs.

Performance metrics for procurement should show quantifiable ESG results in order to guarantee operational responsibility. Goals for resource efficiency, the use of recycled inputs, and CO2 reduction are among them. By including these measures, procurement is in line with more general strategic climate goals.

Increase internal capacity building and training.

Regulatory standards must be operationalized through ongoing professional development. It is recommended that Company X introduce ESG-focused training courses that address sustainable sourcing, supplier assessment techniques, and CSRD/CSDDD regulations. Cross-departmental cooperation and regulatory navigation will be strengthened when procurement teams are empowered through education.

9.2.2 Industry**Create ESG frameworks for the entire sector.**

Standardized procurement norms and reporting templates should be developed by industry associations to promote uniform compliance among businesses, particularly SMEs. By using these technologies, administrative complexity will be decreased and standardized implementation of CSRD and CSDDD will be encouraged.

Create Procurement Alliances.

In addition to reducing compliance costs, establishing shared platforms for supplier risk assessments, audit reports, and ESG performance scoring can improve transparency. Peer-to-peer

learning and group advancement towards SDG 17 (Partnerships for the Goals) are also promoted by these collaborations.

Leverage Procurement to Promote Innovation.

Suppliers who provide low-carbon technologies, respect labour rights, and use circular economy models should be given priority by procurement. By integrating sustainability into market dynamics, the sector may advance SDG 9 (Industry, Innovation, and Infrastructure).

Boost Cooperation with Certification Organizations.

Improved relationships with forest certifying bodies such as FSC and PEFC can strengthen sourcing credibility and traceability. To satisfy stakeholder expectations and EU sustainability standards, industry participants should make these certifications standard practice.

Take part in regulatory discussions.

Constructive communication between industry stakeholders and regulators is necessary to increase the impact of policies. The development of digital infrastructure, realistic compliance schedules, and legislative clarity should be the main areas of advocacy. These are especially important for SMEs trying to fulfil their CSRD and CSDDD duties.

9.3 Research Design Reflection

The purpose of this study was to investigate how the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) are affecting procurement in the engineered wood products industry using a qualitative single-case research design using Company X. The technique combined secondary data, internal corporate records, and three expert interviews covering sustainability, carbon management, and finance. This mixed-methods approach included a variety of stakeholder views and data sources, which improved the findings' validity and credibility.

Interviewees from several Group departments were included to increase stakeholder diversity, which improved the analysis's credibility. Large industrial companies with intricate supply chains are particularly likely to face comparable operational and regulatory obstacles when putting the CSRD and CSDDD frameworks into practice, hence the research's findings are particularly pertinent to them.

The study's single-case design, however, naturally limits the findings' external validity. Although the sector-specific detail provides useful information, the findings could not accurately capture the

wider variation within small and medium-sized businesses (SMEs) or across industries. Therefore, more study in other industries and firm sizes should be conducted in addition to cautiously approaching greater generalization. The findings are still quite relevant, nevertheless, considering the prompt implementation of CSRD and the impending enforcement of CSDDD. They contribute significantly to the ongoing conversations about sustainable procurement, regulatory readiness, and the changing role of ESG in corporate strategy.

9.4 Researcher Perspective and Professional Implications

The author now has a much better understanding of how procurement is changing under EU sustainability regulations thanks to this thesis, which shows how procurement is evolving from a tactical, cost-oriented activity to a strategic function based on governance, compliance, and sustainability leadership.

From a professional and academic perspective, the project accomplished its goals: it contributed to broader conversations on sustainable procurement in the context of CSRD and CSDDD, addressed a pertinent and targeted research issue, and produced practical findings. Despite time constraints that limited the number of external interviews, the study's combination of the legal, environmental, and operational aspects of procurement resulted in a comprehensive, integrated analysis. The following qualify as significant learning outcomes from this process:

- Gaining proficiency in using stakeholder theory and double materiality in practical procurement and sustainability situations,
- Learning about CSRD and CSDDD from a technological, ethical, and strategic standpoint, as well as how they affect supplier interaction, sourcing, and ESG reporting,
- Gaining hands-on experience in qualitative research, particularly in data coding, expert interview design and execution, and converting regulatory insights into business practices,
- Enhancing knowledge of systems thinking, given the growing interplay between procurement, compliance, long-term value generation, and organizational change.

Additionally, this thesis has influenced the author's career goals. After adopting an operational viewpoint at first, the project broadened it to incorporate regulatory integration, stakeholder alignment, and strategic foresight. This makes the author want to work in positions that integrate ESG leadership, regulatory involvement, and sustainable supply chain planning, especially in corporate responsibility, sustainability consultancy, or procurement. All things considered, this research journey has been both an academic endeavour and an essential professional experience, setting the author up for a career that supports ethical corporate transformation in a world that is becoming more regulated and environmentally concerned.

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Appendices

Appendix 1. Interview Questions for Group Employees (Finnish, Interviewees A & B)

Interview Questions for Bachelor's Thesis

24 Mar. 25
Aaltio

Haaga-Helia UAS

Tässä on haastattelu kysymykset, suluissa merkitty vastaava tutkiva kysymys:

1. Miten Group varmistaa eri liiketoiminta-alueiden hankintaprosessien yhdenmukaisuuden vastuullisuuden tavoitteiden kanssa? (IQ 3)
2. Miten Sustainability Management valvoo hankintatoimintaa, jos lainkaan? (IQ 3)
3. Millaisin eri keinoin Group valvoo toimittajia ja sitä, että he noudattavat Supplier Code of Conductia? (IQ 1)
4. Miten materiaalien ja palveluiden hankintoja riskimaista kontrolloidaan ja hallitaan? (IQ 4)
5. Kuvaile toimittaja-auditointia / -arviointiprosessia. (IQ 1)
6. Kuinka Group kannustaa toimittajia asettamaan tavoitteita kasvihuonekaasupäästöjen vähentämiseksi ja myös saavuttamaan ne tavoitteet? (IQ 3)
7. Millainen rooli merilogistiikkakeskuksella on kestävän logistiikan varmistamisessa? (IQ 3)
8. Kuinka Group varmistaa konsernitasolla raaka-aineiden jäljitettävyyden? (IQ 1)
9. Millaisia haasteita olet itse kohdannut hankintaprosessien yhtenäistämässä? (IQ 4)
10. Kuinka Group valvoo ja mittaa hankintojen tehokkuutta etenkin vastuullisuustavoitteiden saavuttamiseksi? (IQ 3)
11. Mitä eri teknologioita/järjestelmiä käytetään konsernitasolla hankintatietojen ja -prosessien hallinnassa? (IQ 3)
12. Kerro, miten hankintaprosessit tulevat muuttumaan lähitulevaisuudessa CSRD:n sekä kestävän kehityksen tavoitteiden vaikuttamina? (IQ 4)

Appendix 2. Interview Questions for Group Employees (English, Interviewees A & B)

Here are the interview questions, in parenthesis find investigative questions:

1. How does Group ensure the alignment of procurement practices across different business units with sustainability goals? (IQ3)
2. What role does the Sustainability Process Management Team play in overseeing procurement activities? (IQ3)
3. How do you ensure that all suppliers comply with the Group Supplier Code of Conduct? (IQ1)
4. How do you manage the procurement of materials and services from high-risk countries? (IQ4)
5. Can you describe the process of supplier assessments and audits? (IQ1)
6. How do you encourage suppliers to set and achieve greenhouse gas (GHG) emission reduction targets? (IQ3)
7. What role does the Maritime Logistics Service Centre play in ensuring sustainable logistics practices? (IQ3)
8. How do you ensure the traceability of raw materials across all business units? (IQ1)
9. What challenges have you faced in harmonizing procurement processes across different regions? (IQ4)
10. How do you measure the effectiveness of procurement strategies in achieving sustainability goals? (IQ3)
11. What role does technology play in managing procurement data and processes? (IQ3)
12. How do you foresee the future of procurement evolving within Group in light of sustainability targets? (IQ4)

Appendix 3. Revised Questions for Interviewee C

Group
Interview Questions for Bachelor's Thesis
Haaga-Helia UAS

11 Apr. 25
Aaltio

Tässä on haastattelukysymykset, suluisa merkitty vastaava tutkiva kysymys:

CSR:n vaatimukset hankinnalle / CSR Requirements for procurement (IQ1)

1. Miten CSR on vaikuttanut Groupin Supplier Code of Conductin sisältöön ja vaatimuksiin? *(How has CSR influenced the content and requirements of Group's Supplier Code of Conduct?)*
2. Millaisia uusia tietopyyntöjä tai raportointivelvoitteita toimittajille on tullut CSR:n myötä? *(What kind of new data requests or reporting obligations have been imposed on suppliers due to CSR?)*
3. Miten toimitusketjun hiilijalanjälkenlaskenta (erityisesti Scope 3) on integroitu osaksi hankintaprosesseja CSR:n vaatimusten mukaisesti? *(How has supply chain carbon footprint accounting (Scope 3) been integrated into procurement processes in line with CSR requirements?)*
4. Miten CSR on vaikuttanut toimittajien auditointikriteereihin ja auditointiprosesseihin? *(How has CSR impacted supplier audit criteria and audit process?)*

Vaikutukset kustannuksiin ja investointeihin / Impacts on procurement costs and investments (IQ2)

5. Millaisia investointeja Group on tehnyt toimittajadataan ja sen keräämiseen liittyen CSR:n vuoksi? *(What kinds of investments has Group made in supplier data and data collection due to CSR?)*
6. Onko toimittajaauditointeihin tai vastuullisuustietojen verifointiin/todentamiseen jouduttu lisäämään resursseja? *(Have you had to allocate more resources to supplier audits or verification of sustainability data?)*

Strategiat ja tehokkuus / Strategies and operational efficiency (IQ3)

7. Miten arvoketjun hiilijalanjälkilaskennan tuloksia hyödynnetään pitkän aikavälin hankintastrategiassa? *(How are the results of value chain carbon footprint calculations used in long-term procurement strategy?)*
8. Miten toimitusketjun Scope 3 -päästötietojen hallinta tukee operatiivista tehokkuutta ja vuoden 2030 vastuullisuustavoitteita? *(How does the management of Scope 3 emissions data support operational efficiency and the 2030 sustainability targets?)*
9. Onko olemassa yhteisiä työkaluja tai prosesseja, joita käytetään kaikkien liiketoimintayksiköiden kesken Scope 3 -päästötietojen keruussa? *(Are there shared tools or processes used across business units for collecting Scope 3 emissions data?)*

Haasteet ja mahdollisuudet / Challenges and opportunities (IQ4)

10. Mitkä ovat olleet suurimmat haasteet CSR:n mukaisten tietojen keräämisessä toimittajilta? *(What have been the main challenges in collecting CSR-compliant data from suppliers?)*

Group
Interview Questions for Bachelor's Thesis
Haaga-Helia UAS

11 Apr. 25
Aaltio

11. Miten toimittajat ovat reagoineet uusiin vastuullisuusvaatimuksiin, kuten Scope 3 -päästöraportointiin? *(How have suppliers responded to new sustainability requirements, such as Scope 3 emissions reporting?)*
12. Oletko tunnistanut uusia mahdollisuuksia kehittää toimittajayhteistyötä tai vastuullisuusinnovaatiota CSR:n avulla? *(Have you identified any new opportunities to develop supplier collaboration or sustainability innovations through CSR implementation?)*

Appendix 4. Participant Consent of Interviewees A & B

Laura Aaltio
Haaga-Helia University of Applied Sciences
Bachelor's Thesis, Tradenomitutkinto

Consent Form, Suostumuslomake 1 (2)
28 March 2025

Title of Study / Tutkimuksen Nimi

Corporate Sustainability Reporting Directive (CSRD) -direktiivin vaikutus hankintaprosessien tehokkuuteen ja kestävyteen suunniteltujen puutuotteiden teollisuudessa

The Impact of the Corporate Sustainability Reporting Directive (CSRD) on the Efficiency and Sustainability of Procurement Processes in the Engineered Wood Products Industry

Researcher / Tutkija

Laura Aaltio, kansainvälinen liiketalous, Tradenomi (AMK)

Laura Aaltio, International Business, Bachelor of Business Administration.

Contact Information / Yhteystiedot

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Work / työ: +358 40 526 7299 & laura.aaltio@metsagroup.com

Purpose and Background of Study / Tutkimuksen Tarkoitus ja Tausta

Tämän tutkimuksen tarkoituksena on selvittää, miten CSRD-direktiivi vaikuttaa hankintaprosessien tehokkuuteen ja kestävyteen insinööripuutuotteiden teollisuudessa. Tutkimus toteutetaan osana opinnäytetyötäni Haaga-Helia Ammattikorkeakoulussa.

The purpose of this study is to investigate how the Corporate Sustainability Reporting Directive affects the efficiency and sustainability of procurement processes in the engineered wood products sector. This research is conducted as part of my thesis at Haaga-Helia University of Applied Sciences.

Content and Duration of Study / Haastattelun Sisältö ja Kesto

CSRD:n vaatimuksia, vaikutuksia hankintakustannuksiin ja investointeihin, strategioita kestävyden tukemiseksi sekä haasteita ja mahdollisuuksia. Haastattelun kesto on noin 60 minuuttia, ja se voidaan toteuttaa sähköpostitse, Teamsin välityksellä tai kasvotusten.

The interview will cover topics such as the requirements of the Directive, its impact on procurement costs and investments, strategies to support sustainability, and the challenges and opportunities it presents. The interview will last approximately 45 minutes and can be conducted via email, Teams, or in person.

Data Collection and Processing / Tietojen Keruu ja Käsittely

Haastattelussa kerätyt tiedot käsitellään luottamuksellisesti ja anonymisoidaan ennen raportointia. Tietoja käytetään ainoastaan tutkimustarkoituksiin, ja ne säilytetään turvallisesti Haaga-Helian tietoturvaohjeistusten mukaisesti. Tietojen säilytysaika on enintään viisi vuotta tutkimuksen valmistumisesta.

The information collected during the interview will be treated as confidential and anonymized before reporting. The data will be used solely for research purposes and

stored securely in accordance with Haaga-Helia's data security guidelines. The data retention period is up to five (5) years after the completion of the study.

Voluntary Participation / Osallistumisen Vapaaehtoisuus

Osallistuminen tutkimukseen on vapaaehtoista, ja osallistuja voi keskeyttää osallistumisensa milloin tahansa ilman seuraamuksia. Osallistujalla on oikeus saada tietoa tutkimuksen edistymisestä ja tuloksista.

Participation in the study is voluntary, and participants can withdraw at any time without any consequences. Participants have the right to receive information about the progress and results of the study.

Consent / Suostumus

Allekirjoittamalla tämän lomakkeen annan suostumukseni osallistua yllä kuvattuun tutkimukseen. Olen saanut riittävästi tietoa tutkimuksen tarkoituksesta, sisällöstä ja tietojen käsittelystä.

By signing this form, I give my consent to participate in the study above. I have received sufficient information about the purpose, content, and data processing of the study.

Signed by: 
Signature / Allekirjoitus _____
Printed Name / Nimenselvennys  _____
Date / Päivämäärä 4/4/2025 _____

Researcher's Signature / Tutkijan allekirjoitus Laura Aaltio
Printed Name / Nimenselvennys Laura Aaltio
Date / Päivämäärä 3/30/2025 _____


Signature / Allekirjoitus _____
Printed Name / Nimenselvennys  _____
Date / Päivämäärä 8.4.2025 _____

To maintain participant confidentiality, names and signatures have been omitted. Originals signed by the researcher are safely maintained and, if needed, can be verified by the thesis supervisor.

Appendix 5. Participant Consent for Interviewee C

Hei ja kiitos, että osallistut opinnäytetyöni empiirisen tutkimuksen vaiheeseen!

Tutkimuksen aiheena on kestävyysraportointi direktiivin vaikutus suunniteltujen puutuotteiden alan hankintaprosesseihin: Tapaustutkimus yrityksestä X (Metsä Wood).

Tutkijana toimii Laura Aaltio, kansainvälisen liiketalouden tradenomitutkinto-opiskelija (AMK). Minuun voit olla yhteydessä tutkimukseen liittyvissä asioissa milloin vain:
+358 50 348 3881 / l.aaltio@gmail.com (henkilökohtainen)
+358 40 526 7299 / laura.aaltio@metsagroup.com (työ)

Tutkimuksen tarkoitus ja tausta:

Tutkimuksen tarkoituksena on selvittää, miten CSRD-dir ektiivi vaikuttaa hankintaprosessin tehokkuuteen ja kestävyteen suunniteltujen puutuotteiden teollisuudessa. Tutkimus toteutetaan osana opinnäytetyötäni Haaga-Helia Ammattikorkeakoulussa.

Haastattelun sisältö ja kesto:

CSRD:N vaatimuksia, vaikutuksia hankintakustannuksiin ja investointeihin, strategioita kestävyden tukemiseksi sekä haasteita ja mahdollisuuksia. Haastattelun kesto on korkeintaan 60 minuuttia, ja se voidaan toteuttaa sähköpostitse, Teamsin välityksellä tai kasvotusten.

Tietojen keruu ja käsittely:

Haastattelussa kerätyt tiedot käsitellään luottamuksellisesti ja anonymisoidaan ennen raportointia. Tietoja käytetään ainoastaan tutkimustarkoituksiin, ja ne säilytetään turvallisesti Haaga-Helian tietoturvaohjeistuksen mukaisesti. Tietojen säilytysaika on enintään viisi vuotta tutkimuksen valmistumisesta, mutta tullaan poistamaan elokuuhun 2025 mennessä.

Osallistumisen vapaaehtoisuus:

Osallistuminen tutkimukseen on vapaaehtoista, ja osallistuja voi keskeyttää osallistumisensa milloin tahansa ilman seuraamuksia. Osallistujalla on oikeus saada tietoa tutkimuksen edistymisestä ja tuloksista.

Suostumus:

Vastaamalla alla olevaan kysymykseen annan suostumukseni osallistua yllä kuvattuun tutkimukseen. Olen saanut riittävästi tietoa tutkimuksen tarkoituksesta, sisällöstä ja tietojen käsittelystä.

Hello and thank you for participating in my bachelor thesis's empirical part!

Title of the study is the impact of corporate sustainability reporting directive (CSRD) on the efficiency and sustainability of procurement processes in the engineered wood products industry.

I, Laura Aaltio act as the researcher. This research is conducted as part of my thesis at Haaga-Helia University of Applied Sciences, Bachelor of Business Administration in International Business. You can contact me about the study at any time from the contacts below:

+358 50 345 3881 / l.aaltio@gmail.com (personal)
+358 04 526 7299 / laura.aaltio@metsagroup.com (work)

The purpose of this study is to investigate how the corporate sustainability reporting directive affects the efficiency and sustainability of procurement processes in the engineered wood products industry.

Content and duration of study:

The interview will cover topics such as the requirements of the Directive, its impact on procurement costs and investments, strategies to support sustainability, and the challenges and opportunities it presents. The interview will last maximum of 60 minutes and can be conducted via email, teams, or in person.

Data collection and processing:


The information collected during the interview will be treated as confidential and anonymized before reporting. The data will be used solely for research purposes and stored securely in accordance with Haaga-Helia's data security guidelines. The data retention period is up to 5 years after the completion of the study, but will be deleted by August 2025.

Consent:



By answering the question on the next page, I give my consent to participate in the study above. I have received sufficient information about the purpose, content, and data processing of the study.

Hyvä, että olet saanut tietoa tarpeeksi! Täytä alle vielä tietosi, niin ollaan valmiita haastatteluun :)

Good that I have provided you enough information! Just fill your information below and we are ready to go :)

Vastaajien määrä: 2 

Vie kaikki tekstivastaukset [Word](#) tai [PDF](#) muotoon

Etunimi / First name	Sukunimi / Last name	Tehtävänimike / Job title
		Manager, Carbon footprint
testi	testinen	kokeilija

To maintain participant confidentiality, names and signatures have been omitted. Originals signed by the researcher are safely maintained and, if needed, can be verified by the thesis supervisor.

Appendix 6. Interview Role Reference Table

Interviewee Role	Identifier Used in Text	Department	Interview Date	Reference Format in Chapters
ESG Specialist	Interviewee A	Finance & Controlling	4.4.2025	(Interviewee A 2025) & Interviewee A
ESG Manager	Interviewee B	Finance & Controlling	7.4.2025	(Interviewee B 2025) & Interviewee B
Carbon Footprint Manager	Interviewee C	Sourcing & Logistics	14.4.2025	(Interviewee C 2025) & Interviewee C