



# **DOUBLE MATERIALITY IN CSRD: TRANSCENDING CHALLENGES, UNCOVERING OPPORTUNITIES**

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Subject Double Materiality In CSRD: Transcending Challenges, Uncovering Opportunities

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Abstract

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The political leadership worldwide is changing significantly in 2024, amid geopolitical conflicts. The World Economic Forum's 2024 Global Risks Report highlights that five out of the top ten global risks are environmental. The EU, committed to sustainability, ramped up its efforts with the EU Green Deal and sustainable finance strategies. A key tool in these efforts is the regulation of sustainability reporting, notably through the CSRD (Corporate Sustainability Reporting Directive) and the ESRS (European Sustainability Reporting Standards). This regulatory change aims to direct investment towards sustainable enterprises, impacting EU companies, foreign companies operating in the EU, and other economic actors collaborating with EU businesses.

The thesis consists of an article published in HAMK Unlimited (Journal) in English language. The article explores the implementation of the double materiality assessment (DMA) required by the CSRD in Finnish companies. The article explores how sustainability reporting has changed from voluntary to mandatory and aims at understanding how Finnish companies conduct the DMA required by the CSRD. The study underlining the article was conducted by applying qualitative methods consisting of semi-structured interviews with sustainability professionals and experts. A total of six participants were interviewed during the year 2024. According to their background, work position, and expertise, three are classified as experts and the other as sustainability professionals.

Key findings relate to the matters in which the companies focus when conducting a DMA. The results show that the participants focus on *effectiveness* when conducting a DMA. Other focus area is that of *change* and *compliance*. The results show that a significant challenge when conducting the DMA is linked to *resourcing*. Another challenge is related to finding the *expertise* needed to conduct the assessment. Analysing the salient concerns for those conducting a DMA provides insights into the priorities of the organizations and their sustainability management strategy.

Keywords CSRD, materiality, double materiality assessment, sustainability reporting, sustainable finance.

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## 1 Introduction

Global political leadership is changing in 2024 with elections being held in more than 50 countries. In addition to the geopolitical and geoeconomic conflicts, the World Economic Forum (WEF) warns that within ten years, five of the ten top global risks are environmental (WEF's Global Risks Report, 2024). In the centre of this turmoil is society and business. The EU (European Union) is committed to a wide range of sustainability matters; the EU Green Deal was introduced in 2019 to combat climate change, environmental problems, and become a leader in this subject (European Commission, 2019).

Sustainable finance is a key strategic direction to achieve the ambitious environmental goals set by the EC (European Commission). Sustainability reporting is one of the tools to achieve the EU goals, one of which is to stimulate direct investment to sustainable enterprises. Among the newest directives in this regard is the CSRD (Corporate Sustainability Reporting Directive) with the ESRS (European Sustainability Reporting Standards) that support the implementation of this directive (European Commission, 2023).

This article thesis argues that organizations contribute to the economic and political situation of the world by the way they perform in sustainability matters. Special concern arises in the context of regions undergoing severe environmental, economic and social challenges. Nevertheless, the focus on Europe obeys three motives: first, the author is located and familiar with the European context. Second, the European region provides a solid ground for research on sustainability reporting due to its strong commitment to key aspects related to what can be considered "ESG matters" or "sustainability". Thirdly, this regulatory change will not only impact a significant number of companies in the EU member states but also companies from other countries domiciled in the EU. In addition, CSRD will impact a significant number of economic actors cooperating with EU companies.

The research questions focus on a key aspect of reporting according to the CSRD: the double materiality assessment (DMA) and the process to conduct it. The interest in the theme originated from the interest of the author in business ethics and experience in CSR and sustainability reporting in a global context. It could be argued that the new regulation is a substantial achievement in this regard and could set an example for business conduct. The DMA process is the basis for reporting according to the instruction provided by the CSRD through its ESRS 1. It is often argued that the DMA is a good example of integrated thinking in corporate sustainability reporting because it introduces a new way of thinking into the (sustainability) reporting logic.

## 2 Purpose of the thesis and research questions

The financial crises of the early 21<sup>st</sup> century were linked to cases of corruption and lack of regulation for financial operations, in the financial and other industrial sectors. Adams & Abhayawansa (2022) affirm that the COVID-19 pandemic brought ESG (Environmental, Social, Governance) matters to the fore and showed how they could affect the stability of the global financial system. The economic impact of the COVID-19 was bigger than expected in the EU region (European Commission, 2021) and the real GDP of the euro area diminished by 6.5% in 2020 (European Central Bank, 2021). The EU dedicates a significant amount of the budget of the EU Green Deal to make the EU an emission-neutral region (European Commission, 2019). Linked to this policy is the EU Sustainable Finance Strategy launched in 2021 to stimulate the financing of the ambitious climate and environmental targets. According to the EC, the objective is to make the EU “*a global leader in setting standards for sustainable finance*” (European Commission, 2021).

Focus on ESG (Environmental, Social, Governance) matters is not new, and the term itself was coined back in 2005 (Pérez et al., 2022). However, ESG matters have become more salient for businesses and their stakeholders, particularly for economic stakeholders like investors (Friede et al., 2015). Companies started reporting sustainability voluntarily, for instance by following the GRI (Global Reporting Initiative) a non-compulsory sustainability reporting standard currently used by 14,000 organizations in more than 100 countries (GRI, n.d.). In 2014, the EU introduced a mandatory reporting directive for companies operating in the EU: the NFRD (Non-Financial Reporting Directive); member states were supposed to include it in their national law in 2016 (Bolch et al., 2020). Nevertheless, the information reported by the companies was “not sufficient” and lacking quality. (European Commission, 2021). The CSRD (Corporate Sustainability Reporting Directive) was proposed in 2021 and enforced in 2023 (European Commission, n.d.). It incorporates the ESRS (European Sustainability Reporting Standards) developed for the EC by EFRAG (European Financial Reporting Advisory Group) (European Commission, n.d.). The companies reporting sustainability under the directive need to comply with the standards and follow indications referring to content and structure.

The CSRD expands the scope of companies required to report on sustainability matters to 1) All large companies; 2) All listed companies; 3) Parent companies or large companies, and 4) Foreign companies operating in the EU (through subsidiary or branch) making more than €150 million in annual turnover within the EU. The CSRD (Corporate Sustainability Reporting Directive) includes 12 ESRS drafted by EFRAG and promulgated by the EC. The standards

stipulate in detail the data that companies need to disclose in their sustainability reports. (European Union, 2023). The standards include a wide range of ESG matters that aim at improving sustainability performance.

The article thesis will be implemented by investigating how companies in Finland conduct the DMA required as the basis for their CSRD-compliant report. The aim of the article is to clarify the DMA process as described by sustainability professionals and experts involved in the assessment. Both experts and sustainability professionals with backgrounds in the field of management, quality management, engineering, economics, CSR and environmental consulting will be interviewed to find out how they understand the DMA process and what challenges and opportunities they have encountered. The methods utilized to analyse the data obtained through semi-structured interviews are qualitative methods.

With the introduction of CSRD thousands of companies in the EU will need to report according to sustainability standards for the first time. It could be argued that many companies find it hard to report under the CSRD due to lack of knowledge and resources. Although many find support in consulting companies, smaller companies could benefit from understanding the processes involved in reporting under CSRD.

The objective of this thesis is to provide an overview of a key ESRS process: the double materiality assessment (DMA) which is the basis for CSRD reporting. DMA is the process to identify materiality topics either from an impact or from a financial perspective, or from both categories of materiality. It is argued here that the process to conduct a DMA is detailed, can be time-consuming and could carry legal or reputational consequences for the company. Therefore, it is important to understand how to do it correctly. The research questions are stated below.

RQ 1: How do companies reporting the financial year 2024 (i.e. publishing report in 2025) in Finland conduct a double materiality assessment?

RQ 2: Which approach they take to the challenges identified when conducting a double materiality assessment?

RQ 3: To what extent have they encountered opportunities in terms of business strategy, and business model development?

### **3 Theoretical background**

Sustainability reporting is usually analysed through the lens of four theories associated with sustainability disclosure practices (Sun, Davey, & Arunachalam, 2022). Legitimacy theory (Suchman, 1995), Stakeholder theory (Freeman, 2010; Eskerod, 2020), Institutional theory (Roszkowska-Menkes, 2022), and Signalling theory (Friske, Hoelscher & Nikolov, 2022) are used in business management and organizational research to analyse aspects of sustainability reporting. Each of the theories provide a suitable background for the study of CSRD and the process of the DMA because of its obligatory nature.

In the introduction it was argued that the CSRD could be an example for sustainability reporting. This argument is illustrated by exploring how early adopters of the double materiality approach have applied it. Some companies claim to conduct the DMA but do not follow the guidelines provided by the EFRAG (European Financial Reporting Advisory Group) and could be considered “label-adopters” (Correa-Mejía et al., 2023).

#### **3.1 Sustainability reporting**

The European Union could be considered a leader in the evolving landscape of sustainability reporting. When the voluntary approach to sustainability reporting was shown to be unsatisfactory, it changed to a regulatory one with the introduction of NFRD in 2014 and the CSRD in 2022. (Mio et al, 2024). There are still comparability challenges, for instance, companies in the US usually implement the TCFD (Task Force on Climate-related Financial Disclosures) recommendations and the SASB (Sustainability Accounting Standards Board) as reporting standards (Mio et al, 2024). Regarding the disclosure of materiality assessment process, there is limited transparency in both European and American companies (Mio et al, 2024).

Societal trends related to sustainability reporting include the climate change movement, globalization, and what is called the “green transition”. Global societal trends related to the topic are salient agendas like the SDGs (Sustainable Development Goals) of the UN (United Nations). In the context of the EU the key trends are the EU Green Deal agenda and sustainable finance. In the context of business, CSRD focuses on ESG issues such as climate change, biodiversity loss, and human rights. It could be argued that key regulations and recommendations related to sustainability are the GRI (Global Reporting Initiative), the UN SDGs, and the UN Global Compact. (Mio et al, 2024). These standards are global and could be adapted to different geopolitical contexts.

The European Commission (EC) states that the goal of the EU Green Deal is to “*transform the EU into a modern, resource-efficient and competitive economy*” (European Commission, 2019). The EC states that the concrete goal of this initiative is to ensure: 1) No net emissions of greenhouse gases by 2050; 2) Economic growth decoupled from resource use; and 3) No person and no place left behind. (EC, 2024). The EC commission considers the EU Green Deal as the “*lifeline out of the COVID-19 pandemic*” and highlights that a third of the €1.8 trillion budget of the “NextGenerationEU Recovery Plan” in addition to the EU’s seven-year budget is allocated to the EU Green Deal. The EU Green deal was presented in December of 2019. Since then, more than 60 documents consisting of proposals, presentations, plans, and strategies have been presented by the European Council. The topics in which the EU Green Deal is working on are: 1) Climate; 2) Energy, 3) Environment & oceans, 4) Agriculture, 5) Transport, 6) Industry, 7) R&D, 8) Finance & Regional development, and 9) New European Bauhaus. (European Commission, 2019).

The TNFD helps organizations to report on nature. They share the EU’s sustainable finance goal of channelling investment towards sustainable enterprises “the ultimate aim of supporting a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes.” (TNFD, 2021-2024). The TNFD was formally launched in 2021. The taskforce recommends companies to disclose nature-related information around four pillars: 1) governance, 2) strategy, 3) risk and impact management, 4) metrics and targets. Within the pillar of governance, the company describes both the board’s supervision and management assessment of “nature-related” dependencies and IROs (impacts, risks, opportunities) as well as human right policies. The strategy pillar requires to disclose the impact of the previous pillar’s material matters on the organisation’s business model, strategy and financial planning. The third pillar asks for a description of the process used by the organization to oversee impacts and risks. Finally, the fourth pillar asks for the disclosure of metrics and targets to manage material dependencies and IROs. (TNFD, 2021-2024)

### **3.2 EU Sustainable Finance Strategy**

The *EU Sustainable finance strategy* that was released in 2021 and strives to support the EU Green Deal and other international commitments on climate and sustainability objectives of the EU. The strategy aims to support the financing of the transition to a sustainable economy by focusing on 1) Transition finance, 2) Inclusiveness, 3) Resilience, and 4) Contribution of the financial system and global ambition. The Sustainable Finance package was launched in 2023 with the aim of ensuring support to companies and the financial sector and at the same time promoting private funding for projects and technologies supporting the transition. The

EC also stresses the activities to increase transparency on the sustainable investment market. (EC, 2023). To support the implementation of this strategy, the EC launched the *Platform of Sustainable Finance*, a working group and forum that involves stakeholders from a wide variety of entities (companies, governments, expert groups) and is involved in monitoring capital flows to sustainable investments and in drafting the ESRS for SMEs (listed and non-listed). (EC, 2024).

Schoenmaker et al. (2019) define the concept of sustainable finance (SF) as the way finance “interacts with economic, social, and environmental issues.” (p. 31). The topic of SF is relevant to understand the regulations aiming at channelling money markets into sustainable initiatives. Before the CSRD came into force, researchers argued that an outside-in perspective was needed (Dyllick and Muff, 2016 in Schoenmaker et al., 2019). This view points to a systems approach like integrated thinking and to the DM (double materiality) underpinning CSRD.

The concept of SF has evolved from the general business notion of sustainability since the end of the 20th century (Schoenmaker et al., 2019). The authors classify SF in three stages SF 1.0, SF 2.0, and SF 3.0. The first stage starts with negative screening, targeting first the “sin stocks”. They give examples not only of the usual sin stocks like tobacco but even more extreme: anti-personnel mines, bombs, child labour. They also mention extreme environmental impacts like waste dumping and whale hunting. (Ibid, 2019, p. 19). Since it is commonly held that a more positive approach will provide better results the authors introduce the “refined profit maximization” function that considers both profit and risks while considering social and environmental impacts (Ibid, 2019, p. 22). The second stage, SF 2.0 internalizes externalities. Both the first and second aim to avoid reputation risk (Schoenmaker et al., 2019, p. 27). Finally, the SF 3.0 focuses on sustainable development.

For each of the stages the authors provide a formula, the one for SF 2.0 considers the integrated value that is the financial, social, and environmental value (p. 23). SF 3.0 moves from risk to opportunity and investors only invest in sustainable companies and projects and optimize the social-environmental impact (value SEV) of their portfolio (p. 23-24). According to Schoenmaker et al. (2019) SF 3.0 utilizes positive selection on their potential to generate social and environmental impact (p. 24). In this approach “*the financial system serves the sustainable development agenda in the medium to long-term*” (Schoenmaker et al., 2019, p. 24). An interesting question to make is how the financial system can serve this agenda.

The term “sustainable investment” is defined by Baker et al. as the process of investing in sustainable companies or funds (2022). The authors describe SRI (Socially Responsible Investment) as a “bottom-up” approach in which investors have a strong influence on sustainability (Baker et al., 2022). In their book, Sherwood et al. (2019) define ESG investing as an overarching term including impact, sustainable, socially responsible, and mission-related investing (p. 1). Schoenmaker et al. (2019) highlights the role of finance to impact sustainable development factors (economic, social, and environment) and claim that the transition from a “resource abundant” economy to a more sustainable economy exemplified by the UN’s 2030 agenda requires “behavioural change”. (p. 3)

Although the audiences for the CSRD reports are both economic and non-economic stakeholders, Dragomir et al. (2024) found that companies reported their impact materiality assessment process but less about their financial materiality: “*Companies engage primarily with stakeholders such as employees and communities, rather than providers of financial capital.*” (Dragomir et al., 2024, p. 2). This contrast the goals of the CSRD and raises the question about the audiences to which the CSRD report is targeted.

### **3.3 Sustainability reporting according to CSRD**

The European Commission introduced the CSRD in 2021 as a legislative proposal (EC, n.d). One of its aims is to expand the Non-Financial Reporting Directive (NFRD) and to align with international standards, for instance, the Task Force on Climate-related Financial Disclosures (TCFD) and the Global Reporting Initiative (GRI). Mio et al. (2024) claim that “*CSRS represents the most advanced form of mandatory sustainability reporting regulations*” (p. 154). A key goal of the directive is related to finance. Mio et al. (2024) argue that the EC highlights the importance of facilitating information to investors to be considered in investments portfolios (p. 154). Many companies have focused on facilitating information for non-economic stakeholders, therefore, the change introduced by CSRD is significant.

The scope of the change introduced by CSRD is significant. One of the key characteristics of reporting under CSRD is its mandatory character since it is an EU directive binding EU member states and it is supposed to be materialized in local legislations. According to de Villiers (2022) “*Mandatory reporting would be likely to introduce more standardised reporting formats and therefore improve comparability.*” (p. 94). The CSRD expands the scope of reporting requirements to include more companies, including large companies, listed companies, and SMEs. It will also cover a wider range of sustainability topics. The obligation

to report will grow in the EU from 11,600 to 49,000 companies, 75% of all the EU-region turnover (Karlsson, 2023).

The changes that these companies could undergo is broad. Some of the changes could be the integration of reporting into the management report, due diligence disclosures, external assurance, digital tagging, and the introduction of the double materiality principle (Uwah, 2024). Furthermore, companies are expected to update their business models or adapt their business strategies when needed: *“firms will have to determine the resilience of their business model and strategy in relation to sustainability risks, adopting a double materiality perspective.”* (Fälth & Lindberg, 2024).

A challenge related to sustainability reporting in SMEs is the limited know-how and resources to conduct it. Consulting companies are providing know-how, nevertheless smaller companies need more than reporting support, especially if they need to review their business models and operations. Correa-Mejía et al. (2023) contend that the regulating organization must guide the process of reporting under this directive. EFRAG classifies SMEs that will report under CSRD as listed (LSME) and voluntary (VSME). The ESRS for LSMEs issued as a “delegated act” will take effect in 2026 with a 2-year opt-out option (EFRAG, n.d.).

Another significant change introduced by the CSRD is the digitalization of sustainability reporting. The XBRL (Extensible Business Reporting Language) is an open international standard for digital business reporting managed by the global not-for-profit consortium XBRL International (XBRL, n.d.). The language utilizes Extensive Markup Language (XML) used to store and transport data and in this way digitalize financial reports. It can be used with any type of business data and utilizes “tags” to the data. The tags can be “recognised by computer software, and efficiently extracted and analysed by users anywhere” (XBRL, n.d.). The tagging needs to be compatible with the ESEF (European Single Electronic Format), the electronic format utilized in the annual financial reports of companies that trade on EU regulated markets (ESMA, n.d.)

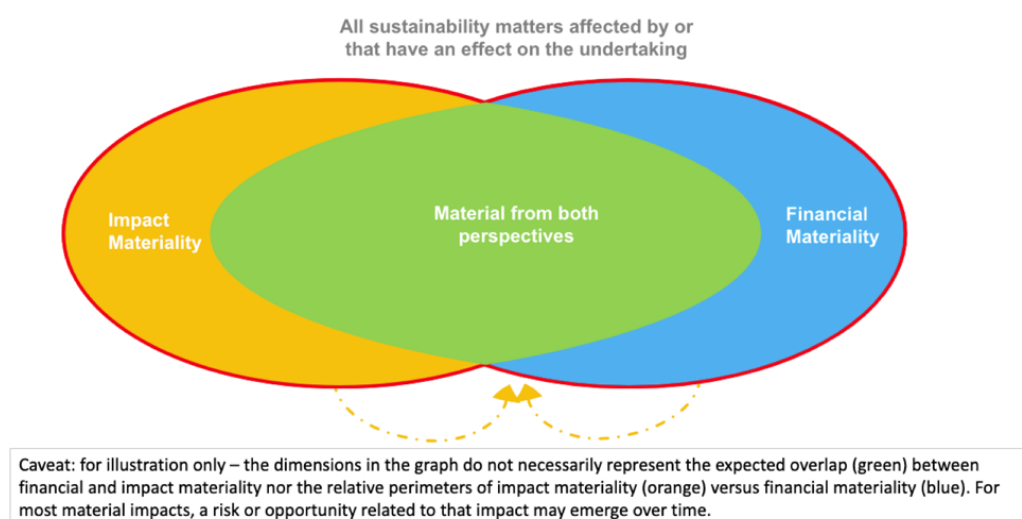
### **3.4 The concept of double materiality**

Before understanding the double materiality concept, materiality needs to be understood. Mio et al. (2024) consider materiality “as the cornerstone of sustainability reporting” and argue that it shapes the reporting process (p. 146). Since materiality is context-specific and can be adapted to the informational needs of stakeholders Mio et al. (2024) classify it into four categories: impact, financial, double, and dynamic; the first two forming the foundation for the

last two ones (p. 120). Impact materiality being the “inside-out” view and financial materiality the “outside-in”. The authors define double materiality as the “merger between financial and impact materiality” (Mio et al., 2024, p. 126) and consider it a “filter” to determine what to include in a sustainability report (Ibid., p. 129). Nevertheless, the concept seems to be still lacking clarity (De Cristofaro et al., 2023).

The hermeneutical challenges regarding the terms of materiality and double materiality need to be addressed before conducting a DMA. Some might consider as material only overlapping matters (i.e. those that are both impact and financial matters). Nevertheless, an overlapping understanding of double materiality (DM) seems to be at odds with the implementation guidelines for materiality assessment provided by EFRAG. Figure 1 shows that double materiality includes a broader scope (EFRAG, 2024, p. 11).

Figure 1. Explanation of the scope for DM (EFRAG, 2024, p. 11)



Although they are separate, both material dimensions (financial and impact) tend to overlap. The double materiality concept could be considered ambiguous. Some argue that it is a contested term and there are concerns about its applicability (Mio et al., 2024; Tager, 2021). Interpretations of DM might differ from the meaning originally intended by EFRAG. In 2021, Tager stated that “*While the basic definition of double materiality is widely accepted, its meaning is still up for debate.*” (LSE, 2021).

The importance of understanding double materiality (DM) correctly cannot be overlooked. DM is key in determining what is a matter of importance or to what pay attention regarding

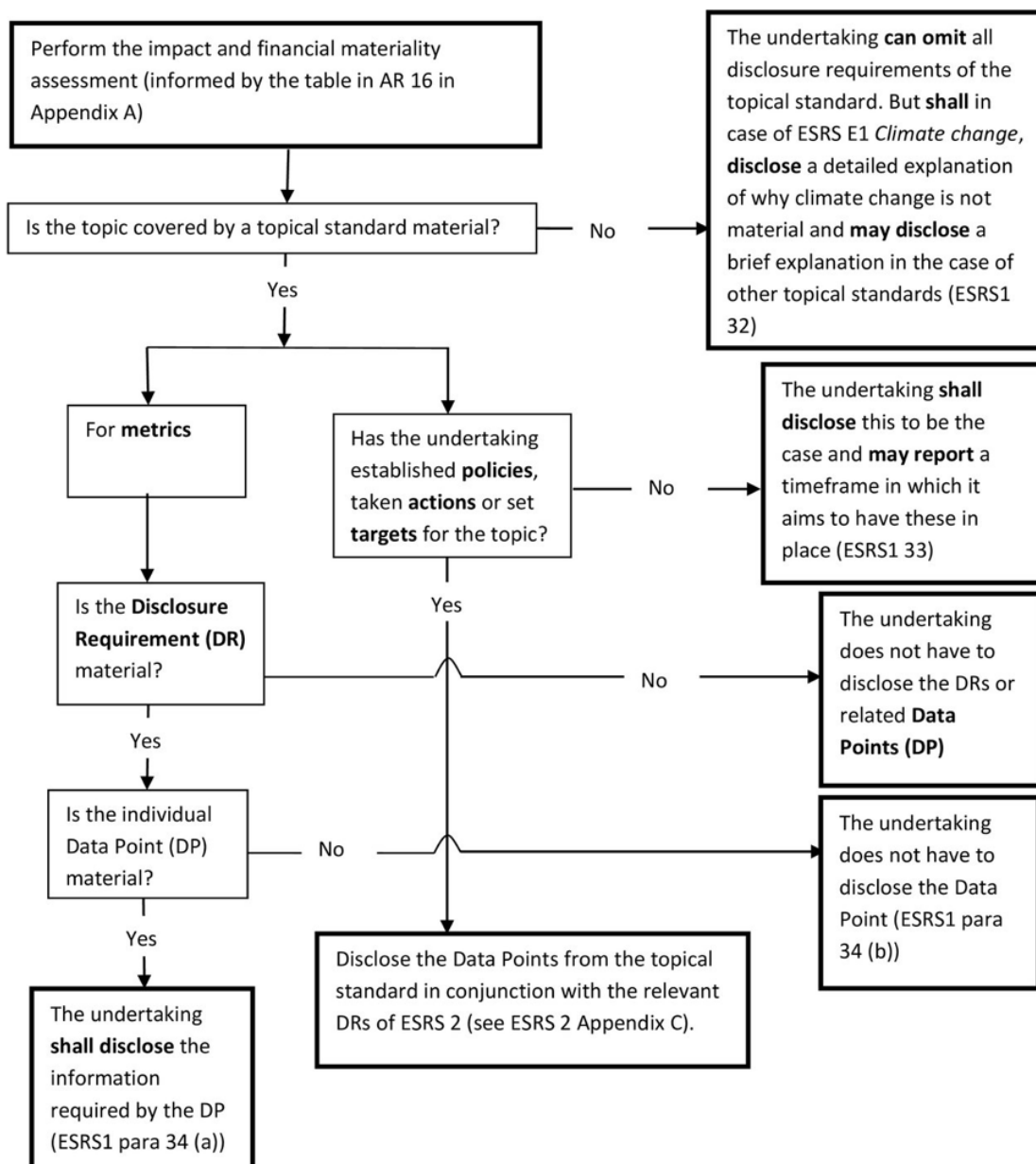
sustainability, and it is stipulated by the ESRS as the “*principle for determining sustainability matters in SR within the EU*” (Uwah, 2024, p. 47). A correct understanding and interpretation of DM is crucial before one commit to its application, for instance, in a corporate or consultancy context.

### **3.5 The DMA process**

Understanding how the DMA process is carried out is important for many reasons. First, it is mandated by the CSRD through the ESRS 2 (European Commission, 2023). Secondly, knowing how it is done facilitates the evaluation of results in terms of validity and legitimacy. In their study about DM practices in ten Finnish companies, Laine et al. (2024) show that the DM process could influence decision making, sustainability performance, report quality, regulatory compliance, stakeholder trust and engagement, and access to finance (p. 38). Thirdly, research shows that initial adopters can set the example for the DM process (Correa-Mejía et al., 2024; Jain et al., 2022). Since companies do not have a concrete blueprint of how to conduct a DMA, they share know-how. Nevertheless, the methods of conducting the DMA vary considerably (Laine, 2024, p. 53). Figure 2 shows the guideline provided by EFRAG in 2023 to determine disclosure of sustainability matters. The flowchart is included in the Annex I of the CSRD regulation and shows the first step in reporting: to identify subjects that are material from both a financial and impact perspective (EFRAG, 2023).

A sustainability subject becomes material if it is relevant from an impact (inside-out) or from a financial (outside-in) perspective, or from both. (EFRAG, 2024, p.10). Uwah (2024, p. 39) explained the process of DMA in a concise way, starting with the identification of financial materiality followed by the identification and assessment of impact materiality. The correct understanding of DMA is linked to governance performance, and it also impacts the way companies engage with external consultants. Dragomir et al. (2024) outlined three key aspects of the DMA within companies: internal processes implemented, responsibilities (governance), and strategies and policies (p. 22). These aspects can overlap, for instance, the outsourcing is a matter of internal processes, but also of governance.

Figure 2. Flowchart to determine disclosure provided by EFRAG (EFRAG, 2023)



There is a difference between companies who outsource the entire process and companies who partially collaborated with consultants. Laine (2024) concludes that those companies that outsource almost the entire process do not consider double materiality as something beneficial, but as something required by law (p. 58). On the contrary, companies with robust sustainability and sustainability reporting know-how did not fully outsource the assessment process. (Laine, 2024, p. 58).

### 3.6 Challenges of the DMA

Challenges arise when conducting a DMA (Correa-Mejía et al., 2023; De Villiers, 2022; Mezzanotte, 2023; Mio et al., 2024; Uwah, 2024). One is hermeneutical, for example how the term “double materiality” and “double materiality assessment” is understood. If the concept of “materiality” is not initially clear, it is difficult to understand “double materiality” and even more challenging to conduct the assessment. This can also lead to inaccuracies and lack of clarity in the report (Uwah, 2024, p.53). Mio et al. (2024) found that from the 47 EURO STOXX 50 companies they analysed 34% have communicated their approach to sustainability materiality in a vague or ambiguous way (p.140). Consequently, the audience does not understand the message and the trust in the reports is lowered. Adams & Abhayawansa (2022) had also found similar challenges related to materiality disclosure. Correa-Mejía et al. (2023) found instances of “early-adoption” of DM with the intention to signal interest in sustainability and build trust.

Other challenges that arise when conducting the DMA are technical. These are related to the methodologies and processes to be developed: “*defining the threshold for materiality is perceived as challenging from many points of view.*” (Laine, 2024, p.55). Other challenges relate to the management and governance aspect of the DMA, for example, how to conduct it “correctly” and how to take the decisions on what to disclose. Uwah, (2024) described the advantages of disadvantages of the DM principle utilized as a base for CSRD. The first disadvantage is like the challenge of defining the threshold for materiality stated by Laine (2024). For Uwah (2024) it is the difficulty to calculate the materiality of impacts. The second disadvantage is the ambiguity in definition and application of concepts. The author adds that the DM principle is very complex, cost-intensive, and it is difficult to balance financial and impact materiality during the assessment. (Uwah, 2024, p. 72).

Uwah (2024) classifies the challenges that could arise when implementing the DM. These challenges can be identified as 1) Correct identification of material matters, 2) Immaturity of the field of impact measurement and scoring, 3) Allocation of resources and complexity in data collection, 4) Ambiguity of key procedural and legal terminology, 5) Recurring costs and conflict potential, and 6) Stakeholder engagement and representation (Uwah, 2024, p.50-57)

One of the challenges mentioned in the literature about DM is that there are no specific guidelines for some key processes (like stakeholder engagement). Therefore, many sustainability practitioners and researchers explore new solutions. Karimov (2024) proposed a “DMA Implementation Template” that includes 5 tools to guide the work of companies

conducting the assessment. The first tool is the “Stakeholder Engagement Framework”, followed by the “Comprehensive Risk Assessment”. The second “Integration into Strategic Planning” aims at incorporating sustainability targets at actions into the organizational strategy. The “Standardized Reporting and Metrics” tool aims at identifying the reporting framework and data sources, followed by “Continuous Improvement and Adaptation” which is aimed at reviewing key areas regularly. (Karimov, 2024, p. 67-69). The tools mentioned could aid SMEs in their initial assessment, but for larger enterprises the approach is simple.

## **4 Article process description**

The process of writing an article for HAMK Unlimited (Journal) started with becoming familiar with the publication requirements. The article thesis requires the author to understand the instructions for the thesis report and the article requirements for HAMK Unlimited (Journal). These are very clear, and the instructions highlight that the article must be focused on the empirical material. (HAMK Unlimited, n.d.).

The next step was to find unexplored research areas for instance those recommended by relevant research papers. Reading about the topic from different perspectives helps to see perspectives that have not been explored. The topic is extensive and new; therefore, it was important to learn to keep the topic concrete while never forgetting the bigger picture. It was important to get the data ready before the writing, however, the writing started already before all the data gathering process ended.

A significant amount of time was dedicated to the literature review. Saturation was reached only after reading about the topic from recent research and from different academic perspectives, for example, law, accounting, environmental economics, computer science. A challenge the author encountered in this regard is the amount of detail involved in the topic of concern. Sustainability standards and regulations are abundant, and they include detailed and extensive guidelines and explanations. In the case of CSRD and ESRS the author needed to update her knowledge from 2023 to 2024; at the beginning there were only drafts until the final documents were published. It was necessary to archive older documents to maintain the right information and sources.

To gather data, the author decided to conduct interviews with experts and sustainability professionals. The organization of the data was done by utilizing interview meeting recordings, transcripts, and then analysing the data by finding common themes.

## **4.1 Description of the article**

The article illustrates the situation of the changing sustainability reporting landscape in the EU and how it affects companies reporting sustainability in accordance with the newly introduced CSRD and it focuses on the DMA. The selection of the article topic started in the beginning of the studies with the selection of the topic of CSRD and DMA. Planning of the article was done during the first academic year of the studies and after having acquired knowledge about the topic. The implementation process started in the beginning of the second academic year of the studies by an initial review with the thesis supervisor. The usability of the article is a key contribution of the thesis article since it can be accessed openly online. The article can serve the professional and academic community looking for information about CSRD, the DMA process and related regulations, frameworks or reporting standards.

## **4.2 Research and development methods**

The methods for data collection and analysis were qualitative because the topic is new. Fiandrino et al. (2022) argue that qualitative research methods fit research topics have an exploratory nature. The author noticed a need to obtain insights from different perspectives. Qualitative research methods help discover nuances (Flick, 2018). The research questions explore the challenges related to the DMA process. It was important to let the points of view participants to take the lead and qualitative research allows that (Bell et al., 2022).

A total of six respondents were interviewed for the article thesis. Semi-structured interviews were conducted with three experts in an area connected to sustainability, and with three sustainability professionals working in Finnish companies (except one working in Sweden). The reason the author chose to interview persons from different backgrounds is because she wanted to explore different perspectives for the same topic. This method seems to suit this thesis topic that is largely unknown and still developing. The author wanted to get valuable input from those dealing with it daily and contrast the different perspectives of the respondents. The interview guide utilized for the interviews is divided into four aspects: 1) The background of the expert, 2) The experience of the expert in sustainability reporting, and 3) Expert knowledge about CSRD and its application, for instance, in the country where he/she operates. The interview guide that is followed-up during the interviews is shown in Appendix 2.

### **4.3 Data collection**

The interviews were conducted through a MS Teams meeting that lasted in average from 45 minutes to one hour and were recorded with the permission of the participant. They were conducted from February 2024 to November 2024 and electronically transcribed into a Word document. The only exception was one meeting (the first one) in which notes were taken into a word document since the Teams meeting was not recorded. The flexible approach of the semi-structured interviews was balanced with an interview guide that was formulated beforehand and sent to those respondents that asked for it. The interview guide was broad, and this allowed participants to respond according to their own experience (Bell et al., 2022). Nevertheless, sometimes the questions were rephrased or a different question asked if the responder was not sure about what to answer.

Table 3. Summary of the six participants (experts and sustainability professionals)

#### **4.3.1 Interviews with experts**

When selecting the respondents for the expert interviews, it was important that they were familiar with CSRD and DMA. They are called experts because they are specialized in a specific sustainability area, some technical, some administrative and not due to their experience in years. Furthermore, many of them work in large organizations specializing in research and innovation. The experts were contacted through the professional social media LinkedIn and/or invited to participate at the end of webinars focused on CSRD organized by consulting companies.

The first expert was a consultant from Sweden and was interviewed early in 2024 through Teams. The interview lasted about 45 minutes to one hour. The responses were recorded in notes. The other participants do expert work in specialized positions, one in an international management consulting firm providing services for large international companies, and the other in the Technical Research Centre of Finland.

#### **4.3.2 Interviews with sustainability professionals**

The other participants classified as “sustainability professionals” have worked in areas related to sustainability and have experience in sustainability reporting. When selecting the three sustainability professionals it was important that they were planning to conduct, conducting, or had conducted a DMA and could produce insights about the DMA process. The participants were found through the “snowball” sampling or “chain method”, initially contacting people in webinars, and at the end of the research by asking directly through formal networks.

#### **4.4 Data analysis**

Following the arguments put forward by Bell et al. (2022) that qualitative data can be large, unstructured, and compared to quantitative data there is no clear way of how to analyse it (p.528) the author decided not to follow only an inductive or abductive approach that could have expanded significantly the literature review or deviated from the research questions (Bell et al. (2022)). Instead, both a theory-driven and data-driven approach was followed to keep the focus on the article.

When searching for themes, the author focused on *similarities and differences*, *missing data*, and *theory-related material* (Ryan & Bernard, 2003 in Bell et al., 2022, p.530). By looking for *similarities and differences* in the data the author could identify nuances related to the priorities of the participants. Looking for *missing data* served a similar purpose. Theory-related material was identified by using concepts to identify themes (Ryan & Bernard, 2003 in Bell et al., 2022, p.530).

#### **4.5 Selected publication channels**

The selected publication channel is HAMK unlimited, a journal published online in the URL <https://unlimited.hamk.fi/journal/> with the ISSN (International Standard Serial Number) 2343-

4694. This platform includes three publications: *Professional*, *Journal* and *Scientific*. The publication for this thesis article will be the *Journal* since it includes topics of relevance in several fields. The topic of the article is of interest to the professional community in the field of sustainability and sustainability reporting. In addition, there is a section for articles in English. Since the master's degree and the article thesis were conducted in English, the article is supposed to be published in the English language section found in the URL <https://unlimited.hamk.fi/journal/>

## 5 Conclusions on the products and reflection

When researching the concept of “responsibility” or “sustainability” in HAMK Unlimited (Journal), the results were limited. After conducting a content review of HAMK Unlimited (Journal) it was decided that the best process for the article was to first understand the topic and then interview experts and sustainability professionals. One important publication found in HAMK Unlimited was the article written by Mutonen (2017). This work went deep into the philosophical basis for responsibility, both corporate and individual and motivated the author to consider that point of view. Nevertheless, the article written for this thesis is not purely philosophical since it studies a concrete process in business sustainability: double materiality assessment.

Writing the thesis article for HAMK Unlimited (Journal) involved understanding how to publish an academic article. Further plans include exploring related topics and other academic publications. In his book about business research, Bell (2022) claims that “*research is full of false starts, blind alleys, mistakes, and enforced changes*” (p.15). Writing the article provided an opportunity to be flexible when conducting research. The false starts are probably the easiest to manage, if done fast. A more difficult aspect of research are the blind alleys, those things that are not noticed, missed, or not understood (Ibid., 2022). Flexibility allows the researcher not only to adapt to external requests, but to reflect about areas of opportunity and adopt a new approach.

Critical examination of the personal learning relates to the a) organization of the materials, b) prioritization of work; c) regularity and constancy in writing, and 4) focus on the topic. These four areas can be developed further. In the area of organization of materials, the use of digital supports needs to be further explored. Usually familiar “manual” methods seem safe in terms of control and data-security; however, these methods might be time-consuming and laborious. Another area for reflection is the prioritization of work to get the most critical sections of the article thesis done. Another learning was to learn to commit to a writing

routine, for this purpose is necessary to prioritize a specific topic or section of the article.

Finally, focus on the topic of the article thesis is very important when dealing with a novel and interdisciplinary topic like the one developed here.

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## **Appendix 1. Interview guide for semi-structured interviews**

### **About the Expert**

#### *Professional background*

1. *What is your field of expertise?*
2. *How many years of experience you have in sustainability reporting?*

#### *Sustainability reporting*

3. Do you have experience in sustainability reporting? How many years?
4. How familiar are you with sustainability regulations?
5. What sustainability regulations are in your view most relevant?
6. How familiar are you with reporting under CSRD?

### **About CSRD**

1. How familiar are you with CSRD?
2. How long have you been doing something related to CSRD?
3. How many companies have you advised in producing sustainability reporting?
4. What has been your experience regarding reporting under CSRD?
5. Do you think it is a development in terms of corporate behaviour?

### **About the application of CSRD**

1. Can you describe the process of double materiality assessment?
2. Have you performed a CSRD gap analysis?
3. What kind of challenges have you found in the double materiality assessment?
4. What kind of tools have you used?
5. Do you think companies under CSRD need to review their business model?
6. How can companies under CSRD align their operations?

### **CSRD in local legislations**

1. Are you familiar with the proceedings regarding local legislation related to CSRD matters?
2. Is there a public discussion (for example in the media or business media/schools) regarding this legislation?
3. Are companies aware of CSRD?
  - How can they find out about it?

## **Appendix 2. Thesis data management plan\_Vázquez Harkivi**

### **1 Management and storage of research data**

The research data utilized for this thesis includes video of interviews recorded in MS Teams and the transcripts of these meetings.

The research data will be saved and processed in the personal computer of the author. Data security and data protection is secured and backed up in the personal account of the author in a cloud service.

The research data does not contain confidential nor sensitive data.

### **2 Processing of personal data and sensitive data**

Sensitive personal data was not collected, and personal data will not be published except for the job titles of the interview participants, as agreed with them. Research material containing personal data was processed as anonymized as agreed with participants. Interview material is not published as an appendix.

### **3 Ownership of thesis data**

The ownership of the thesis data and the results is the property of the author.

### **4 Further use of thesis data after the work is completed**

The research data of the thesis will be stored in a secure manner for one year from the date of approval of the thesis and will not be used further.