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# Intermediary Strategies for Supporting Companies with Policy Implementation Challenges

A Multisectoral Study of EU ETS 2 and the Green Claims  
Directive

Master's thesis in Industrial Ecology

Tilda Andersson

Olivia Carter

DEPARTMENT OF TECHNOLOGY MANAGEMENT AND ECONOMICS

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DIVISION OF INNOVATION AND R&D MANAGEMENT

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Tilda Andersson

Olivia Carter



Department of Technology Management and Economics

*Division of Innovation and R&D Management*

Department of Certification, RISE Research Institutes of Sweden

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TILDA ANDERSSON

OLIVIA CARTER

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Supervisor: Amanda Bankel, Chalmers University of Technology

Supervisor: Sophia Engström, RISE Research Institute of Sweden

Examiner: Ingrid Johansson Mignon, Chalmers University of Technology

Department of Technology Management and Economics

Chalmers University of Technology

SE-412 96 Gothenburg

Sweden

Telephone + 46 (0)31-772 1000

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## Abstract

Despite ambitious climate targets set by the EU and Sweden, a significant implementation gap remains between policy goals and real-world actual outcomes. This thesis investigates how an intermediary organisation, such as RISE Research Institute of Sweden, can support companies in closing this gap with focus on two forthcoming EU directives – the revised EU Emission Trading Scheme (EU ETS 2) and the Green Claims directive (GCD) in Sweden. The study specifically aims at identifying challenges that companies in the Swedish energy, manufacturing and building sector face in relation to these directives and identifying strategies that intermediary organisations can develop to address these.

A qualitative case study approach was used, involving 9 semi-structured interviews within the different sectors and a workshop with stakeholders from RISE. Findings were analysed using an analytical framework based on prior literature, that included both a system-and actor-level dimension.

Regarding challenges companies faces, the findings showed a wide range of barriers at the both the system-and actor-level. System-level challenges included policy risk- and design issues, financial constraints, cultural resistance and infrastructural barriers. Actor-level challenges related to limited company resources and organisational structures specific to individual companies. To address these challenges, several intermediary strategies that organisations like RISE can adopt were identified across three dimensions: managing and regulating, capacity building and problem solving. At the system-level, these were related to offering verification services and providing clear, accessible information. At the actor-level, they involved delivering educational support and consultancy services. While some challenges were addressed by multiple intermediary strategies, particularly those related to infrastructure and company resources, others related to culture and policy risk-and design remain largely unaddressed.

The outcome of this study contributes to theory by offering empirical insight on challenges and strategies related to EU ETS 2 and GCD in a Swedish setting. Some findings aligned with previous literature while some were newly discovered, highlighting new dimensions to the policy implementation gap. The multi-levelled strategies identified may also be scalable, offering potential support for companies with other climate policies. Ultimately, the thesis concludes that an intermediary organisation like RISE can play an important role in helping companies comply with the challenges identified in this study.

**Keywords:** Intermediary, EU emission trading scheme (EU ETS 2), Green Claims directive (GCD), challenges, intermediary strategies, directives, system-level, actor-level.

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# 1 Introduction

According to the 2015 Paris Agreement the global temperature increase should be limited to well below 2°C above pre-industrial levels, aiming at limiting it to 1.5°C (UNFCCC, n.d.). It has now been 10 years since the agreement was made and the UN report that current measures are insufficient to meet this target (UNFCCC, 2023). In fact, global temperatures continue to rise and NASA states that 2024 was the warmest year on record and that the global average temperature are approaching a 1.5°C temperature increase (Bardan, 2025). Even if there are ambitions to meet the targets set in the Paris agreement, there is a major implementation gap that need to be closed (Perino et al., 2022).

The implementation gap is defined as the difference between a climate target and the actual and projected reductions achieved with current climate policies (Fransen et al., 2023; Perino et al., 2022). There has been an increasing amount of research on policy implementation since the 1970s (Pressman & Wildavsky, 1973), but still the implementation gap remains (Copeland & Wexler, 2015; Hammar, 2022; Teddy et al., 2019; Viennet & Pont, 2017). Barriers that cause this gap are related both to the policy formulation process (Perino et al., 2022) and to the process of policy implementation (Hudson et al., 2019).

Many climate policies have been formulated in recent years and are now at the early stages of adaption. As an example of this, the European Union has introduced the EU Green Deal, a comprehensive legislative package with the overarching goal of achieving climate neutrality across the EU by 2050 (Council of the European Union, 2024). Two key directives in this legislative package are the revised EU Emissions Trading System (EU ETS 2) and the Green Claims Directive (GCD). These directives impose new regulatory demands on companies, such as stricter emissions tracking and substantiated sustainability claims (Council of the European Union, 2025).

As a member state of the EU, Sweden is committed to implementing these directives at national level. In addition to aligning with the EU's Green Deal, Sweden have set its own climate goals, which are even more ambitious than the ones set by the EU. Sweden aims at reaching zero net emissions of greenhouse gases by 2045 (Regeringskansliet, 2021). This implies that Swedish companies and industries must accelerate their sustainability efforts to meet climate targets, highlighting the importance of studying the barriers to implementing these new policies to ensure they achieve their intended outcomes.

Since governmental policy schemes are usually implemented by companies and organisations, it is important to look at barriers implementation from a company perspective (Montjoy & O'Toole, 1979). According to existing literature, they can be of varying nature stretching from challenges at either system or actor-level.

System-level challenges arise from structural conditions that affect all companies within a specific sector or extend across multiple sectors. System-level challenges could for instance be poor policy design, where legislation may be unclear or inconsistent

(Breetz, 2020; Peters, 2018) or infrastructural limitations (Hammar, 2022). For example, a case study examining the Swedish primary industry's compliance with EU Legislation revealed that both physical infrastructure (e.g. access to relevant technology) and non-physical infrastructure (e.g. availability to relevant information) were insufficient (Hammar, 2022).

In contrast, actor-level challenges are instead rooted the internal conditions of individual companies. These may be related to restricting company resources such as limited knowledge or financing (McEwen, 2013) or organisational barriers stemming from company structures or internal resistant to change (del Brío & Junquera, 2003; Kontturi, n.d.).

Although numerous studies have explored challenges related to policy implementation across various contexts and settings, a research gap remains regarding the specific challenges companies may face in relation to the forthcoming EU directives, EU ETS 2 and GCD, within the Swedish setting. Moreover, implementation challenges often vary between sectors (Hammar, 2022; Maund et al., 2018). Given that current climate targets primary aim to reduce greenhouse gas emissions, it is particularly relevant to focus on sectors with high emissions reduction potential. The manufacturing, building and energy sectors are among the most significant in this regard (UNEP, 2022), and they are all targeted by both the EU ETS 2 and the GCD.

When it comes to strategies to handle policy implementation challenges, previous research have identified that there is a need among companies for implementation support (Hudson et al., 2019). Existing literature identifies various forms of implementation support, including regulation and management, capacity building and problem solving. For instance, this may involve facilitating networks and collaborations (Hudson et al., 2019) or assisting companies in interpreting complex policy requirements (Franks & Bory, 2017).

However, despite the recognized need for implementation support, there is a significant disconnection between policymakers and companies (Hudson et al., 2019). While policymakers are responsible for creating enabling conditions, they may lack the proximity or capacity to engage directly with companies. For instance, green claims made by companies can be very specific and illustrates the importance of tailored support. As a result, Hudson et al (2019) suggest that intermediary bodies play a crucial role in providing this support. Intermediaries are discussed in literature as actors that can bridge the gap between different actors, such as policy makers and companies (Franks & Bory, 2015; Kivimaa et al., 2019; Neal et al., 2022).

Intermediaries represent a diverse group of actors with various functions, for example including consultation, technical support, quality assurance and education (Franks & Bory, 2017). Since companies seems to struggle with a diverse range of challenges, including both system- and actor-level challenges, intermediaries might be able to address these through various support strategies. This could for instance be by aiding in understanding policy goals or demands (Franks & Bory, 2017), or by providing support that is tailored to local contexts (Hudson et al., 2019). Alternatively, their

largest implementation support may lie in their independency, enabling them to analyse and validate data in accordance with directives.

Against this background, RISE (Research institute of Sweden AB) is exploring their role in supporting companies in the policy implementation process. As a state-owned research institute, RISE operates as an intermediary actor in Sweden. Their mission is foster innovative development, sustainable growth and increased competitiveness of Swedish industries and companies (RISE, 2025). With a broad mandate and diverse areas of expertise, RISE engage both in research and provision of services such as competence building and certification.

Understanding the role of an intermediary like RISE, and what services they can provide within the context of policy implementation, is essential to fully leverage their potential in addressing the challenges associated with the forthcoming directives, EU ETS 2 and the GCD. Notably, RISE current client portfolio includes companies in the energy, manufacturing and buildings sectors, making it interesting to analyse their customer's needs and demands for this purpose.

Given this context, the aim of this study is to investigate how an intermediary organisation, such as RISE, can support their existing customers in closing the implementation gap with focus on the directives EU ETS 2 and GCD in Sweden.

To achieve the purpose the following questions will be answered:

1. What challenges do companies in the Swedish energy, manufacturing and building sectors face in relation to EU ETS 2 and the GCD?
2. What type of strategies can an intermediary organisation, such as RISE, develop to support companies in addressing these challenges?

## 2 Theory

This chapter presents a comprehensive review of literature, containing key concepts essential for understanding the challenges faced by companies in the policy implementation process and ways in which they can be supported through intermediary strategies. Consequently, a framework for both challenges and strategies are created and will act as a basis for further analysis.

### 2.1 Challenges from a Company Perspective

This review focus on literature that examines challenges from a company perspective, emphasizing the difficulties that companies encounter in complying with policies. The challenges that have been identified by previous literature vary in nature, with some occurring at system-level and others at actor-level. System-level challenges are issues that stem from structural conditions and affect multiple companies within a sector or across different sectors, whereas actor-level challenges are rooted in conditions of individual companies.

#### 2.1.1 System-Level Challenges

Regarding system-level challenges, literature has highlighted several key issues that can be divided into four overarching dimensions of structural or contextual barriers. One such dimension concerns *policy design*, which can significantly impact companies' ability to comply with regulations. In many cases, policies are not effectively crafted, causing flaws, misinterpretations and widespread criticism (Peters, 2018). Poorly designed policies might, for example, impose unrealistic timelines, creating challenges for companies to reach policy compliance (Bretz, 2020). Additionally, problems arise when policymakers in one country or sector design policies based on a shared or generalized perspective. While this may work within in their framework, it can cause difficulties for policymakers in other countries or sectors to interpret and implement the policy effectively (Peters, 2018). Peters (2018) notes how one policy might not fit all and that some therefore will struggle to work with policies outside their contextual setting. Consequently, design flaws or lack of contextual detail in a policy can hinder successful implementation at company-level.

A second overarching dimension of system-level challenge relates to *financial challenges*. This is partly related to the substantial cost associated with complying with the new regulations under the EU's Green Deal, paired with that economic support often inadequate or uncertain. Hammar (2022) specifically highlights insufficient financial support from EU as an issue in the Swedish context. Additionally, if scientific recommendations are perceived as economically unfavourable to politicians at national level, they may not be prioritized on national level either (Kassie, 2024). This adds an extra obstacle to the companies' competitiveness and potential profit.

Moreover, there is uncertainty regarding whether investments in compliance with policies will yield returns, and if so, how substantial those returns will be. McEwen (2013) states that this can create dilemmas whether a large upfront made to comply with new policies is justified by the associated expenses. A common dilemma for companies is therefore often whether to prioritize short term economic values over long-term environmental goals. According to a study by Laitos & Wolongevicz (n.d.), this tension stems from the idea that people tend to act based on their own self-interest and carefully weigh costs and benefits of choices. Subsequently, choices are made in favour of economy and at the expense of the environment (Kassie, 2024).

Another challenge that companies face is companies is *policy risk*, which in short can be described as lack of continuity and commitment at the system-level (Bradley et al., 2016). According to (Bradley et al., 2016), this is due to the dynamic nature of the policy process, which leads to uncertainty for companies. For instance, changes in government structures often leads to shifts in priorities, creating uncertainty about the nature of future policies and new legislation (Bradley et al., 2016). Since policies often target companies, shifts in priorities can be a challenge for their implementation process. Changes may require different resources or technologies that are not readily available. In many cases, this challenge causes companies to abandon compliance efforts altogether (Dantata, 2016).

The final overarching dimension of system-level challenges concerns *infrastructure*. Hammar (2022) highlight that both physical and non-physical support infrastructure is essential for companies to comply with climate policies. Physical infrastructure could in relation to the directive EU ETS 2 be access to low-carbon energy sources or access to carbon capture and storage (CCS) facilities (Borchardt, 2023). Regarding the GCD, physical infrastructure could for instance be robust systems for verifying environmental claims (European Commission, 2025). Non-physical infrastructure, on the other hand, relates to the availability of information needed to comply with a policy. Both physical and informational infrastructure are structural elements of society that affect multiple companies, making them system level-challenges.

### 2.1.2 Actor-Level Challenges

Moving on from the system-level, there are also two overarching dimensions of challenges at the actor-level. One main dimension at this level concerns *company resources*, which may be limited in relation to what is needed to comply with policies. Companies' resources include both knowledge and expertise, financial resources, physical resources and social capital.

According to (McEwen, 2013), businesses often experience a lack of understanding about laws and prerequisites. Many companies face challenges regarding how regulations impact their business and how to interpret them correctly (McEwen, 2013). In addition, when new technology is needed for compliance, navigating the adoption and integration of these often presents a challenge for companies (Álvarez Jaramillo et al., 2019). Kontturi (n.d.) explains that implementation success might be higher if employees understand more about the required change and how it impacts them. She further states how most reasons why required changes fail is due to this fact, that people are unaware of how to implement changes needed (Kontturi, n.d.). Notably, lack of knowledge and expertise should not be confused with insufficient access to information, which was previously identified as a system-level challenge. In this context, it is assumed that all necessary information is accessible, but a lack of expertise at company level still results in a knowledge gap.

Further, while financial challenges have been discussed as a system-level challenge (Halima Oluwabunmi Bello et al., 2024), the availability of financial resources can also differ significantly between companies and sectors, which makes it important to consider as an actor-level challenge as well. As an extension of this, lack of physical resources at actor-level, including both human labour and technical equipment, often stem from financial constraints (Brunello et al., 2022). McEwen (2013) highlights how challenges regarding financial resources are especially significant to small-to-medium-sized enterprises (SMEs). Additionally, different industries operate under different conditions. Industries often have varying access to financial, human and technological resources. A specific industry can also have unique operational processes, technologies and regulatory environments that require a different set of resources, which makes this an actor-level challenge.

Mignon & Bergek, (2016) further highlight the importance of a social capital. The social capital of a company is related to their credibility and access to social networks. When it comes to credibility, the opinions expressed by stakeholders in a company's network can impact a company's willingness to embrace new ideas and policies. This means that a company's way or strategy to work with sustainability is affected by the actions or absence of actions of other actors within their network. Additionally, these networks could offer access to essential information, knowledge and skills.

The final overarching dimension of actor-level challenges concerns *organisational factors*. These challenges can be rooted in both the structural setup of a company and the values and norms embedded within its organisational culture. The structure of a company can limit their flexibility and responsiveness to environmental regulations.

For instance, the absence of a dedicated organisational unit focused on managing environmental issues can hinder or slow down the advancement in developing sustainability practices (del Brío & Junquera, 2003). This is often a challenge that smaller companies face related to the lack of financial capacity (Brunello et al., 2022). Restricted financial resources mean a limited budget for human resources, which in turn can limit their ability to dedicate a specific team to manage environmental issues effectively.

Additionally, internal resistance is a recurring challenge when implementing new policies (Kontturi, n.d.) Implementation of new sustainability practices often requires a change in internal structures, which in many cases can create opposition. The resistance can be divided into three parts: cognitive such as negative thoughts, emotional such as frustration and lastly behavioural such as inaction. Kontturi (n.d.) further highlights how this is a very natural reaction, since it involves moving from a known state and into the unknown. This can be reflected in forms such as drops in productivity and more conflicts (Kontturi, n.d.).

To conclude this section, a range of challenges at both the system- and actor-level have been identified in previous research. Building on this, previous studies emphasise that once such challenges are identified, they can be addressed through different types of implementation support. Hudson et al (2019) has identified three possible overarching support mechanisms.

Firstly, *managing and regulating* where the goal is to ensure that practices are met and to assess performance. Selepe (2023) further emphasises how monitoring and regulating is essential for policy implementation because it creates accountability and helps ensure that intended outcomes of the policy are achieved. However, this can be expensive for companies, causing them to self-assess their performance, creating risks with the correctness of the evaluation (Hudson et al., 2019).

Secondly, Hudson et al (2019) highlights *capacity building* as a possible implementation support. Here, the focus lies in the “how”, with investments in guidance, peer learning, and management skills for addressing future implementation challenges in a sustainable manner (Hudson et al., 2019). Providing training and education programs can be critical to create commitment to changes necessary in reaching policy implementation (Kontturi, n.d.).

Lastly, the need for *problem solving* support is emphasized. This can be sought in multiple ways, for instance with technical support, utilizing evidence and research, troubleshooting or brokering in conflicts. This requires flexibility, since a problem can vary depending on the company and local context (Hudson et al., 2019).

As explained in the introduction chapter, these types of support mechanisms can be facilitated by an intermediary actor through a variety of strategies (Hudson et al., 2019). Hence, it is of great importance to understand these actors and their functions better. The following section will introduce the concept of intermediaries further and identify intermediary strategies that can help companies address challenges related to the policy implementation process.

## 2.2 Intermediary Strategies

The term “intermediary” has been used in various fields of policy implementation research for decades. For instance, in the education sector, intermediaries are defined as an organisation engaged in the process of knowledge transfer (Neal et al., 2022). The concept has also been applied to the health sector in the past decades, where intermediaries are seen as actors performing multiple functions to bridge gaps between research and the implementation of best practices (Franks & Bory, 2015). Furthermore, intermediaries have in recent years gained momentum in the sustainability transition field as an actor who can catalyst the transition process (Kivimaa et al., 2019).

As discussed in the literature, intermediaries are discussed in various fields of research and the literature as a whole lacks unity in defining their roles and boundaries (Kivimaa et al., 2019). They can range from whole organisations to certain individuals within organisations (Kivimaa et al., 2017). Furthermore, characteristics such as funding source, ownership, neutrality, governance structure, motives and scope of intermediation can vary (Mignon & Kanda, 2018). Since these actors are very diverse, and one intermediary may not be generalized to all others (Mignon & Kanda, 2018), this underscores the need to acknowledge the unique characteristics and roles of intermediaries within each context.

One example of an intermediary is RISE Research Institutes of Sweden, a state-owned research institute that, as mentioned in the introduction, operates as an intermediary organisation across multiple sectors in Sweden. RISE provides a valuable case for exploring how an intermediary can support companies in addressing challenges related to EU ETS 2 and GCD. Below, various intermediary strategies are presented, targeting actors at both the system- and actor-level. These strategies serve as potential approaches that an intermediary like RISE could adopt or further develop to support companies based on insights from existing literature on intermediary roles. The strategies are grouped according to the three overarching support mechanisms identified by Hudson et al. (2019): *manage and regulate*, *capacity building* and *problem solving*.

### 2.2.1 System-Level Strategies

At the system-level, an intermediary can *manage and regulate* by analysing and validating data as an independent party (Rohleder, 2006). The author states how this is critical to promote compliance and a level of assurance in validity of data. For instance, it has previously been utilized in the U.S. Acid Rain Program to ensure accountability and provide administrative certainty, and in the EU ETS 1 that launched in 2005 (Rohleder, 2006). As validation of data promotes compliance, it in turn fosters trust and stability in the market (Rohleder, 2006).

Another system-level support strategy involves assisting companies in interpreting and understanding policy requirements (Franks & Bory, 2017). This can be categorized

under *capacity building*, as it focuses on enhancing stakeholders' ability to comprehend regulatory demands. Such support may include translating complex policy language into sector-specific interpretations to ensure consistency across industries or regions. Additionally, form of strategy can involve the creation of best practice models, which serves as examples for how companies can comply with regulations effectively and efficiently (Franks & Bory, 2017). According to (Franks & Bory, 2017), these models not only provide clarity, but also help to reduce uncertainty and encourage alignment across sectors.

Moving on to the *problem solving* support mechanism, intermediaries can play a key role by facilitating networks and building trust between companies and policymakers (Hudson et al., 2019). Furthermore, (Kivimaa, 2014) explains how they can get competitors around the same table and create rules and frameworks for cooperation, helping to align interest across organizational boundaries, i.e. at system-level. Similarly, Mignon & Kanda (2018), emphasise that intermediary bodies can play an important role in enabling collaboration between actors who may have different resources, capacities and goals. In addition, intermediaries can support companies during the implementation and development of new technologies, helping them overcome practical barriers to compliance (Mignon & Kanda, 2018).

### 2.2.1 Actor-Level Strategies

Turning to the actor-level, intermediary strategies have been identified under two of the three support mechanisms. Under the *Capacity building* mechanism, tailored guidance or educational programs allow intermediaries to address challenges that are specific to individual companies or local contexts. This form of support enables intermediaries to offer customized solutions that take into account unique circumstances, resource levels or knowledge gaps of a given company (Franks & Bory, 2017; Hudson et al., 2019).

This also extends to certain *problem solving* strategies, where intermediaries can provide support at the actor-level by offering technical expertise and hands-on support (Hudson et al., 2019). Such support may take the form of consultation services or hands-on technical assistance aimed at helping companies navigate specific implementation challenges (Franks & Bory, 2017).

Based on the literature and examples presented above, intermediary organisations like RISE are clearly actors with a broad role, that could potentially provide a variety of functions at both the system-and actor-level. However, it is of importance to highlight that combining several activities within the same organisation can be complex and problematic. For instance, combining educational support with compliance can create conflicting interest since they serve different purposes (Hudson et al., 2019). The educational support function is meant to guide and help individuals or organisations achieve their goals, while compliance services are meant to ensure adherence to rules, regulations and standards. There is a tension between these two services whereas the support mechanism is more subjective, and the compliance evaluation should aim at being objective.

Lastly, the literature highlights that the work of intermediaries requires flexibility and responsiveness (Torres & Steponavičius, 2022). This means that organisations like RISE must continuously adapt to the changing contexts and evolving needs of stakeholders at company-level.

To bring structure and clarity to both the challenges and intermediary strategies discussed above, the following section introduces an analytical framework designed to organise these elements and support further analysis.

### 2.3 Analytical Framework

The analytical framework enables a structured and systematic lens, to uncover patterns and interpret empirical data (Schwarz et al., 2007). The framework is designed to cover system- and actor-level challenges and support mechanisms respectively. Furthermore, it allows for a comparison and exploration of the interplay between the system- and actor-level challenges and strategies. This approach will enable an analysis of these two levels and leverage the possibility to find support mechanisms that an intermediary such as RISE can create. The second column focuses on challenges companies face with policy implementation and will be used to analyse companies perceived challenges in relation to EU ETS 2 and the GCD, see table 1. The third column outlines potential intermediary support strategies to address these challenges. It is important to note that, at this stage, these strategies are not directly matched to the challenges outline in the second column, but are instead presented as a general repertoire of possible interventions. The framework is used later in the analysis of empirical data, see section 5.

TABLE 1. THEORETICAL FRAMEWORK – CATEGORISATION OF POTENTIAL CHALLENGES AND INTERMEDIARY STRATEGIES.

Level	Challenges	Intermediary strategies
<b>System-level</b>	<p>Policy design</p> <p>Financial</p> <ul style="list-style-type: none"> <li>- Investment costs and returns</li> <li>- Availability and access to funds</li> </ul> <p>Policy risk</p> <p>Infrastructure</p> <ul style="list-style-type: none"> <li>- Physical infrastructure</li> <li>- Information</li> </ul>	<p>Managing and regulating</p> <ul style="list-style-type: none"> <li>- Analyse and validate data</li> </ul> <p>Capacity Building</p> <ul style="list-style-type: none"> <li>- Informational support</li> </ul> <p>Problem Solving</p> <ul style="list-style-type: none"> <li>- Facilitate networks and collaborations</li> <li>- Develop and implement sustainable technologies</li> </ul>
<b>Actor-level</b>	<p>Company resources</p> <ul style="list-style-type: none"> <li>- Knowledge and expertise</li> <li>- Financial resources</li> <li>- Physical resources</li> <li>- Social capital</li> </ul> <p>Organisational</p> <ul style="list-style-type: none"> <li>- Company structure</li> <li>- Values &amp; Norms</li> </ul>	<p>Capacity Building</p> <ul style="list-style-type: none"> <li>- Educational support</li> </ul> <p>Problem Solving</p> <ul style="list-style-type: none"> <li>- Consultancy</li> </ul>

While the existing literature offers valuable insights into intermediary strategies for policy implementation challenges, most studies tend to focus on one specific sector or directive, often with a narrow scope. As a result, there is limited understanding of how challenges and intermediary strategies play out across the manufacturing, building and energy sectors in Sweden in response to the EU ETS 2 and GCD. To address the research questions of this study and fill the knowledge gap, it is essential to gather additional data from the sectors under investigation.

## 3 Methodology

The following section provides a description of the methodological approach used in this study. It begins with a description of the research context and research design. Next, the pilot study is presented, followed by sections describing the data collection process, data sampling and analysis of data. Finally, limitations and a reflection of ethical aspects to this study are discussed.

### 3.1 Research Context

The thesis was conducted in collaboration with RISE, where our role has been to explore what strategies they could develop to support their customers in meeting new requirements under the EU's Green Deal. Although RISE does not explicitly identify as an intermediary organisation, it fulfils several of the functions that according to Franks & Bory (2017), define such entities. RISE offers technical assistance and expert consultancy services across various domains (Engström, 2025). In addition, the organisation plays a key role in ensuring quality assurance and continuous improvement through mechanisms such as third-party reviews, verifications and certifications. RISE also serves as a platform for promoting public awareness and education. Moreover, it supports companies in identifying development opportunities, for example by providing guidance on navigating relevant policy frameworks (Engström, 2025).

The collaboration with RISE had certain implications for the research, particularly in selecting the directives to focus on in the study and when determining the data sampling, as the analysis was based on their existing customer base. Hence, the study is geographically limited to companies operating in Sweden, as that is where RISE's customer base is located. Interviewing RISE existing customers and hence limiting our study to Sweden had certain advantages. Firstly, accessing and collecting primary data is more feasible with access to RISE's customers. Secondly, limiting the research to one country allows for a more thorough and detailed analysis. Policy implementation challenges is not a problem limited to Sweden, but conducting research across multiple countries is both complex and time-consuming. Local conditions, such as political, social, and economic factors, influence the policy implementation process and can vary significantly between different countries (Hudson et al., 2019). Thus, what works in one context may not be effective in another. To analyse challenges specific to Sweden is therefore of importance, since greater awareness of potential challenges can help improve policy implementation support (Kontturi, n.d.).

Furthermore, the number of studies on challenges specific to EU ETS 2 and GCD seem to be limited in a Swedish setting. Thus, greater knowledge of challenges Swedish

companies face can lay a foundation for addressing them and on a longer scale for Sweden reaching their climate goals.

### 3.2 Research Design

To fulfil the aim of this study and answer the research questions presented above, a qualitative single case study was conducted. This choice of method was selected since a case study enables a holistic and real-world perspective on organisational and managerial processes (Yin, 2018). This enabled an explorative phase, where direct observation on companies currently facing problems with implementation of new directives could be analysed.

Moreover, it was considered crucial to include both company representatives and individuals at RISE in the data collection process. Thus, the case study was structured into two distinct phases of data collection. The first phase focused on collecting primary data through interviews with companies, while the second phase involved a workshop with key stakeholders at RISE. This ensured a comprehensive and systematic approach to answering both research questions, providing valuable insight into challenges faces by companies through interviews as well as a basis for developing support strategies through the workshop. This approach ensures a rooting in the practical realities where challenges emerge, while leveraging the extensive expertise at RISE regarding the development of support strategies and their feasibility.

Following the data collection, the data was analysed using a method inspired by the Gioia methodology. This approach was chosen to ensure rigor in the analysis of the qualitative data (Gioia et al., 2013). The exact methodology is described in detail in section 3.5.

Furthermore, an approach used throughout the whole case study research was systematic combining. This approach is characterized by a continuous shift between a model world and an empirical world (Dubois & Gadde, 2002). By constantly transitioning in between theory and empirical observations, the understanding of both worlds can expand. In other words, the findings from theory were used for analysis and comparison to the findings from the primary data collection.

The early stages of the thesis also included a pilot study, which contributed to our preparations for the case study. The pilot study served as an explorative phase, evaluating relevant areas of focus for the case study. This ultimately provided a basis for choosing EU ETS 2 and GCD, whilst giving an overview of different policies included in the EU Green Deal. This ensured that our case study and research was both well informed.

### 3.3 Pilot Study

The EU's Green deal includes several different legislative packages and two of the main packages are the Fit for 55% and the Circular economy action plan (CEAP). A mapping of all directives in the Fit for 55 package as well as several from CEAP was made. The mapping was conducted by identifying legal acts included in the EU Green Deal directly from the European union and European commission's websites. Furthermore, EUR-LEX has been used, an online gateway to European Union law, to review the legal documents and actions for each directive or regulation. Through these sources, information regarding different legal acts, such as press releases, proposals and revisions were gathered. See appendix 9.1 for more information regarding the mapping of directives.

The next step was determining which directive or regulations to prioritize for the case study. This was done through discussions with supervisors from both RISE and Chalmers University of technology, as well as through communication with industry organisations within the targeted sectors. Six industry organisations were contacted, resulting in three respondents, all from representatives in the energy and manufacturing sectors. All industry organisations confirmed that the EU Green Deal indeed has many relevant initiatives for further analysis. EU ETS 2 was acknowledged by all respondents, and when discussing with one industry organisation in an interview, it became clear that greenwashing is a matter of concern. Thus, EU ETS 2 and GCD both emerged as directives of priority. RISE also confirmed their interest in analysing these two directives, further supporting their relevance to the study.

Additionally, since both directives have not yet been entered into force, all interview subjects are positioned as new adopters. This is group that previous research has identified as more likely to encounter a range of challenges (Mignon & Bergek, 2016), aligning closely with the focus of this thesis.

### 3.4 Data Collection

By using systemic combining, the data collected were of both secondary and primary origin, which enabled an in-depth analysis of contemporary events, where empirical evidence could be identified (Yin, 2018). The primary data collection consisted of both semi-structured interviews (SSI) and a workshop with RISE. The primary data collection is presented in more detail in the following sections. Meanwhile, the main sources used for the secondary data collection were reports accessed at either Google scholar or Chalmers library. Both sources provide access to an extensive set of previous research and was used to gain a comprehensive understanding of the current state of the research field and relevant theories. Literature streams that were reviewed are related to challenges to policy implementation from a company perspective as well as intermediary strategies.

### 3.4.1 Semi-Structured Interviews

The semi-structured interview (SSI) design is suitable for one-on-one interviews, facilitating qualitative and exploratory collection of primary data. This approach enables the collection of individuals independent thoughts and it is common to ask follow-up questions such as “*how*” and “*why*” (Adams, 2015). Open ended questions are suitable when exploring new territories to find a wide latitude of leads. However, SSI can be time-consuming. It requires interviewer sophistication, with a lot of effort into preparation, setting up the interviews, conducting them as well as analysing them (Adams, 2015). In preparation for the interviews, an interview protocol was developed and shared with participants in advance, allowing them time to prepare. See interview protocol in appendix 9.4. Background research on the participating companies was also conducted to ensure a well-informed and productive discussion.

When conducting the SSIs, it was done in a conversational manner via Teams, using a mixture of closed- and open-ended questions. Each session took around 30-60 minutes and included four main parts: (a) an introduction of ourselves and the purpose and theme of our thesis; (b) an introduction of the interviewees, the company and their role at the company; (c) exploration of the companies’ perceived challenges with policy implementation and (d) discussions about what type of support that can help them address these challenges. However, as mentioned above, the interviews were not restricted to only pre-prepared questions, but also open for follow-up questions.

To enable interpretation of the interview data, all interviews were recorded and transcribed using the transcription feature in Teams. An important prerequisite in this process, was that all participants confirmed the usage of transcription and recording.

### 3.4.2 Data Sampling

Analysing RISE’s customer base assisted in the process of data sampling, since it provided direct access to companies for interviewing. Based on their customer base, a purposive sampling technique was used to encompass a diversity in company size, geographical location within Sweden, and sectoral representation. This allows for answering the research question with a wide coverage within each sector, as well as a comparison between sectors.

The target number of interviews was around 10, aiming for equal distribution between sectors. While it was difficult to estimate the number of companies to contact to reach this, a total number of 29 companies were ultimately contacted via email. When receiving a small number of affirmative interview subjects, follow-up emails were sent followed by phone calls. Some companies declined participation due to time constraints, while others expressed a lack of adequate knowledge or preparation to effectively respond to the interview questions. Consequently, they were asked to recommend other potential participants from the same company. In some cases, the request was redirected to stakeholders better equipped to address the questions, while

others conveyed that the necessary resources or knowledge were not immediately available within their organisation. As a result, all interviewee's possessed a level of expertise within the sustainability aspect of their companies, with some being the most knowledgeable on the topic within their organisation.

Ultimately, a total of 9 companies from RISE customer base were interviewed, see table 2, with the division being as followed:

- 5 from the manufacturing sector
- 2 from the building sector
- 2 from the energy sector

Initially, the transport sector was included as part of the sampling, seeing that EU ETS 2 and GCD both affect this sector. However, no responses were received from these stakeholders, ultimately leading to the removal of this sector from the analysis.

TABLE 2. SUMMARY OF COMPANIES INTERVIEWED.

Company number	Interviewee's position	Sector	Company size*
1	Quality and Environmental Manager	Manufacturing	Large
2	Marketing Coordinator and Environmental Manager	Manufacturing	Small
3	Three attendances - CEO - Purchasing manager - HR/Order	Manufacturing	Small
4	Public Affairs Lead	Energy	Large
5	QEHS Manager	Manufacturing	Medium
6	Sustainability Coordinator	Energy	Large
7	Environmental Coordinator	Manufacturing	Large
8	Sustainability Manger	Building	Large
9	Director of Sustainability	Building	Large

Asterisk\* - The company sizes was categorized according to European Commission's definition of Small and medium-sized enterprises (SMEs) (European Commission, 2025)

### 3.4.3 Workshop

Following the semi-structured interviews, a second phase of data collection was carried out through a workshop conducted in collaboration with representatives from RISE. This phase enabled us as researchers to try out our theories and findings from the interviews with practitioners in real situations and in a real intermediary organisation (Avison et al., 1999). The goal of the workshop was to brainstorm and analyse potential business strategies to support customers based on the data obtained from the interviews and the participants' prior knowledge. A total of 6 participants from the RISE Certification department participated in the workshop. The following positions were represented in the workshop:

- Head of Department
- Unit Manager
- Business Developer x2

- Director of Management - System & Verification
- Certification Engineer/Sales

Additionally, the Marketing Manager and two Senior Researchers were invited to participate in the workshop. However, due to scheduling conflicts, they were unable to attend. Their contributions were added through contact via mail. These individuals were chosen for the workshop due to their diverse expertise and direct involvement with customers, as well as their influence in the development of RISE's business. This selection ensures a comprehensive approach when exploring the potential development new services.

The first part of the workshop included a brainstorming session of support strategies. As a basis for the brainstorming session, a short presentation was held where the challenges highlighted in the interviews with companies were presented. Subsequently, potential strategies that RISE could develop to support companies were listed, along with any existing services that might address these challenges. These emerged from a combination of individual reflection and group discussions, and were listed on post-it notes using Microsoft Whiteboard. As a final step in the first part of the workshop, any support explicitly mentioned by the companies during the interviews was incorporated if it had not already been addressed.

The second part of the workshop involved analysis of the support strategies from RISE's perspective. In this phase, a two-dimensional matrix was used to facilitate the analysis. One dimension assessed whether the strategy was a short-term or long-term solution. Short-term strategies were those that could be implemented almost immediately (1 < year), such as utilizing an existing service, while long-term solutions required more time and resources (1 > year). The other dimension assessed whether the strategies aligned with RISE's capabilities and strategic goals.

Finally, some strategies identified as particularly relevant were further discussed using questions such as "*What would be the next step?*", "*Who is responsible?*", and "*What information is missing?*". After the workshop was completed, a summary of what had been said was sent out to all participants to ensure that everything was interpreted correctly and that nothing was missing.

Conducting the workshop together with RISE representatives was a crucial step in the data collection for answering research question 2, as they have the best understanding of their company's operations as well as valuable experience in the field.

### 3.5 Data Analysis

The interpretation process began with a systematic review of the interview transcripts and the data on support strategies collected during the workshop. The methodology for doing this was inspired by the Gioia Method (Gioia et al., 2013). Notably, the Gioia method is adaptable to each case study, allowing authors to shape it and deviate from core methodology when appropriate (Gioia et al., 2013). For the purpose of this study, the methodology offered a structured way to analyse the qualitative data collected from the semi-structured interviews and workshop, enabling the identification of patterns and extraction of meaningful insights. This method added rigor to the theory development process and was essential for generating findings from the data that are both credible and defensible.

The first step of this systematic methodology was to do a 1<sup>st</sup> order analysis (Gioia et al., 2013). This phase is known as open coding. Coding units, such as single words, sentences or support strategies, were retrieved from the interview transcriptions and workshop as 1<sup>st</sup> order concepts. About 20-25 1<sup>st</sup> order concepts per interview were identified, providing diversity to the data. This approach ensured that participants' voices and perspectives were accurately represented, minimizing the risk of the authors imposing preconceived interpretations on their experiences.

The next step was to do the 2<sup>nd</sup> order analysis, where the 1<sup>st</sup> order codes were organised into 2<sup>nd</sup> order themes called sub-categories. The 1<sup>st</sup> order themes were grouped logically and by identifying patterns until theoretical saturation was met. This step is called theoretical sampling, and it was followed by merging the 2<sup>nd</sup> order categories into overarching dimensions. The analytical framework developed from previous research was utilized as a basis for this categorization. Finally, these dimensions, together with the 1<sup>st</sup> -and 2<sup>nd</sup> order terms, were used to form a data structure, see section 4.1 and 4.2. This provided a graphic representation of the data and what the insights were based upon (Gioia et al., 2013). Furthermore, this data structure was analysed in relation to the theoretical framework developed from previous literature.

### 3.6 Limitations

There are certain limitations to this thesis, particularly due to the qualitative nature of the study and the scope of the primary data collection. With only nine companies interviewed, the findings might have failed to accurately represent the whole sectors. Hence, no generalized conclusions can be made with certainty, which is a recognized limitation of qualitative research, instead, the findings indicate trends and patterns. Additionally, the distribution between sectors was not equally weighted. This limited the possibility of comparison between sectors. As a result, the sectors overall trends and challenges may not have been fully captured. Furthermore, by limiting the

interviewees to RISE's already existing customers, the potential of discovering new customers as well as insight outside of this network is limited.

Moreover, certain limitations exist when only prioritizing two directives for the case study - EU ETS 2 and the GCD. The relevance and knowledge of these directives varied among interviewees, which can have affected the depth of the responses. To counteract this, general questions about challenges regarding the implementation of other sustainability policies were also asked during the interviews to capture potential challenges and intermediary strategies for other directives. This approach enabled us to capture a wider picture of challenges with policy implementation, that could further apply to EU ETS 2 and the GCD.

Finally, the interpretation of the interview data was as described inspired by the Gioia method to ensure rigor to the analysis of qualitative data. However, different interpretations of data can occur among different authors (Gioia et al., 2013). In cases where the authors interpreted the encodings differently, the data were revisited, and consensual interpretations were reached through mutual discussions.

### 3.7 Ethical Considerations

Ethical aspects are very important to consider in any research (Rashid et al., 2019). Since this master thesis involved interviews with company representatives, it was important to ensure compliance with the GDPR legislation. This included the following measures:

1. Informing participants about the purpose of the research and how the interview data was to be used.
2. When transcriptions and recordings were used, it was always done with the consent of the participants.
3. To safeguard the participants as well as RISE, any identifiable information was anonymized in the report.
4. The data from the interviews are only accessible for the people working with this master thesis, including authors and supervisors.

Further, any sensitive information specific to RISE was not shared publicly without their consent. Lastly, AI tools were used for language support and improving the clarity of the text. These included Copilot provided by RISE and ChatGPT. However, all coding, empirical findings and interpretations were made by the authors. Thus, transparency and authorship were considered, and these AI tools were used with caution.

## 4 Empirical Findings

This chapter presents the findings from the case study, based on the data collection from the interviews and the workshop. The findings show both challenges and intermediary strategies at the system-and actor-level respectively.

### 4.1 Challenges

The challenges at system-level are related to the overarching dimensions of *policy design* (multitude of different regulations, contradictive design), *financial* (investment costs and returns, availability and access to funding), *cultural* (values and norms), *policy risk* (changes to legislation) and *infrastructural* (information, verification scheme) challenges, see figure 1 below. When looking at the actor-level challenges, these were identified within the overarching dimensions of *company resources* (financial resources, knowledge & expertise, physical resources) and *organizational* (company structure, values & norms) barriers, see figure 2 below.

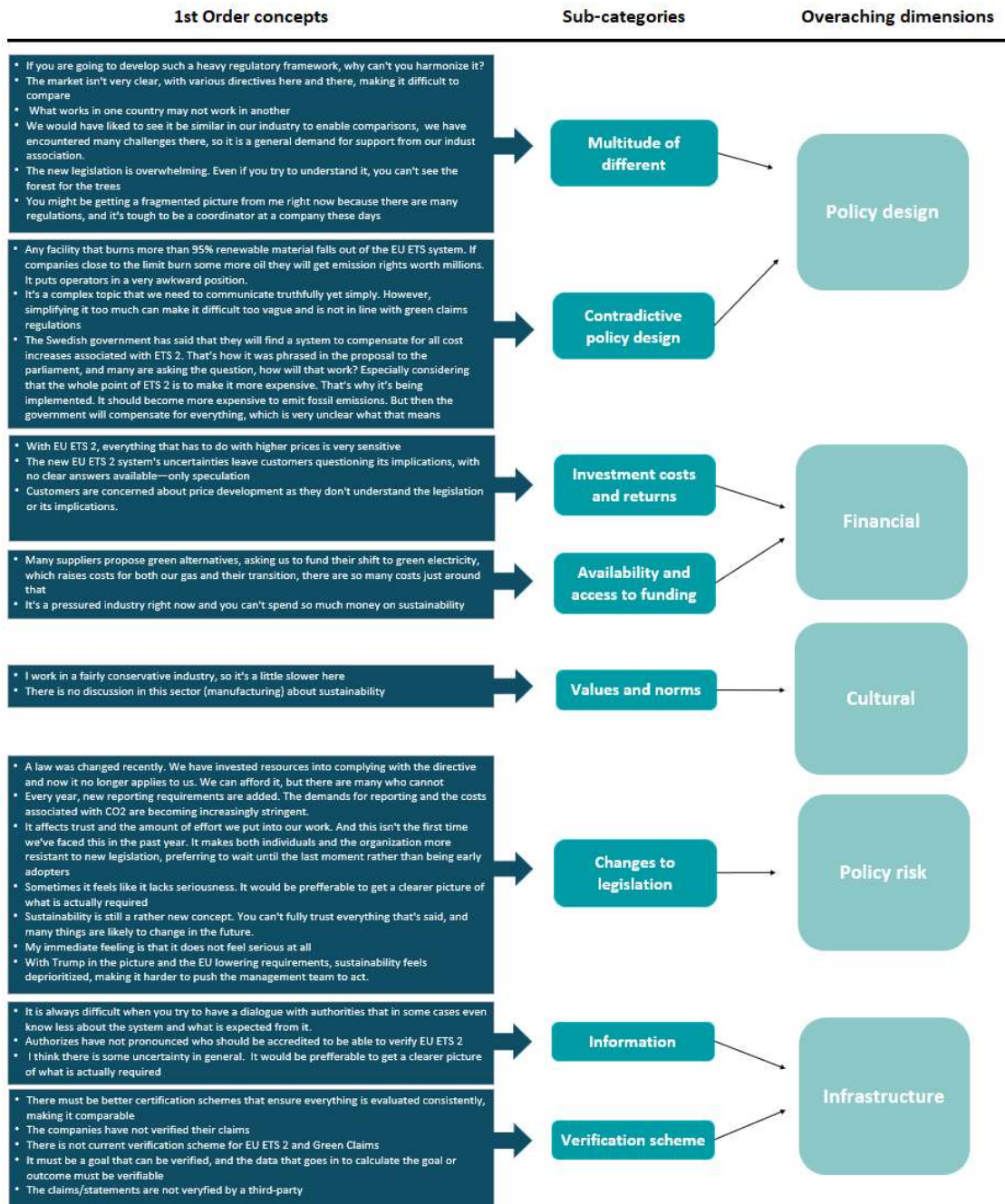


FIGURE 1. DATA STRUCTURE PROVING A GRAPHIC REPRESENTATION OF THE SYSTEM-LEVEL CHALLENGES.

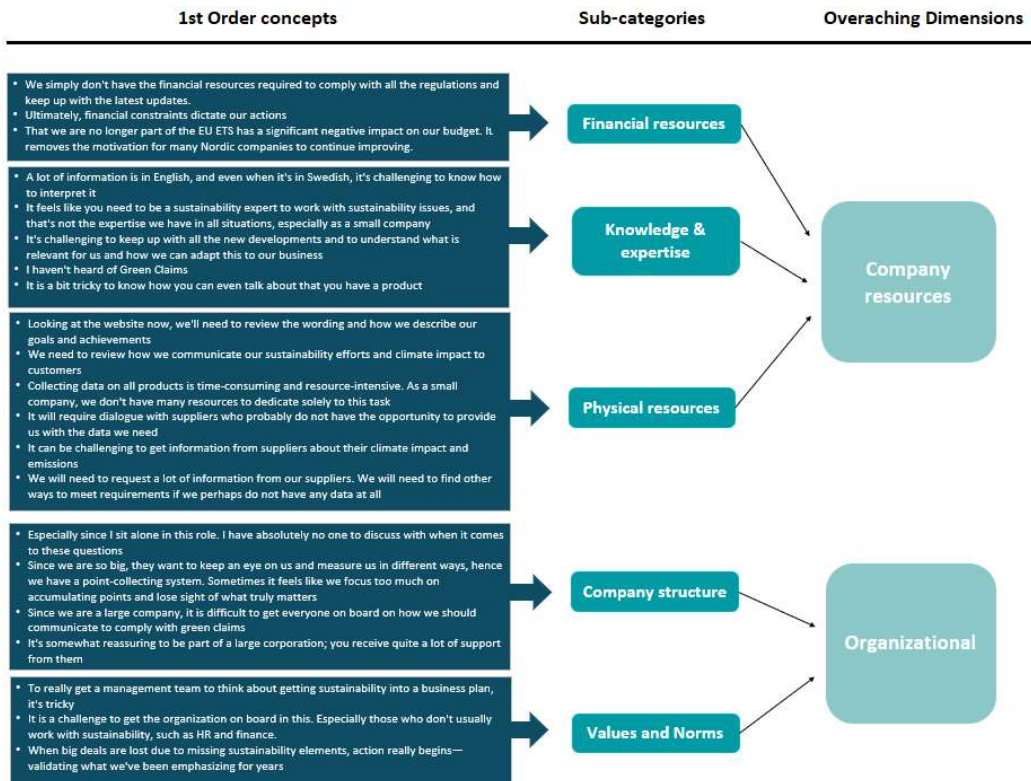


FIGURE 2. DATA STRUCTURE PROVING A GRAPHIC REPRESENTATION OF THE ACTOR-LEVEL CHALLENGES.

#### 4.1.1 System-Level Challenges

Firstly, the interviewees experienced system-level challenges related to the dimension *policy design*, specifically concerning the multitude of different legislations and contradictory designs. There has been significant emphasis on the multitude of different legislations and the lack of standardisation among these various legislations. This is not a challenge isolated to the EU ETS 2 and GCD, but a broader challenge affecting the entire framework of the EU Green Deal. On the one hand, the lack of alignment between different pieces of legislation makes it difficult to navigate and to compare compliance efforts between companies. This inconsistency and challenge raised the question from several interviewees regarding why the various legislation cannot be aligned.

*“If you are going to develop such a heavy regulatory framework, why can't you harmonize it?” / Company 1*

On the other hand, Company 8 highlighted that there is a challenge with legislation being overly standardized. Given that the EU Green Deal legislation applies to all member states and spans multiple sectors, overly standardized legislation often fails to account for diverse conditions across different countries and companies.

While most companies struggled with issues related to the multitude of different legislations, only company 4 and 6 in the energy sector specifically highlighted issues regarding contradictory policy designs, both with EU ETS 2 and the GCD. In this context, contradictory policy design refers to conflicting policies or agendas that create confusion and inefficiency in their implementation. Notably, the findings showed how only these two companies reported being directly affected by the EU ETS 2 directive.

Further, challenges related to *financial issues* on system-level have been highlighted, both concerning investment cost & returns and availability & access to funding. Financial issues at the system-level arise due to the sensitivity around higher prices and the significant costs involved in transitioning to green alternatives.

Investment cost & returns was only highlighted by company 4, stating how stakeholders are concerned about price development from EU ETS 2, as they don't understand the legislation or its implications. With access to funding, this too was only mentioned by one firm.

*“It's a pressured industry right now and you can't spend that much money on sustainability” / Company 7*

Furthermore, challenges related to *culture* have been highlighted during two interviews, both with companies from the manufacturing sector. More specifically, these challenges stem from societal values and norms, indicating issues at the system-level. Company 2, for instance, highlighted the challenge of operating in a very conservative industry.

Another system-level challenge highlighted by most of the companies is related to *policy risk*, specifically concerning changes to legislation. Changes to legislation focus on concerns related to the unpredictability and frequent modifications of laws. Notably, it has only been expressed as a challenge by large companies, as they experience stress as well as uncertainty on how to allocate their resources.

*“How much work should be done now? How much patience should one have considering that things might change?” / Company 1*

Related to the changes to legislation, a few companies expressed a perceived feeling of lacking seriousness connected to the EU's Green Deal, which made it difficult for the companies to commit fully to the new regulations. Furthermore, Company 7 shed light on how political attitudes can influence how prioritized sustainability is at the company level.

Lastly, system-level challenges have been identified related to *infrastructure*, and more specifically due to lack of information as well as verification schemes. These

infrastructure challenges were prevalent across all sectors and company sizes. For instance, Company 4 noted that they are still awaiting guidance from the EU Commission on how to develop a monitoring plan for EU ETS 2, even though it was expected months ago. Meeting the requirements are not possible without sufficient information, creating concerns across many companies. Additionally, fulfilling the requirements will further require the development of new verification schemes for both EU ETS 2 and most probably the GCD, since no infrastructure currently exist for this. More information on the EU ETS 2 and the GCD is found in appendix 9.2 and 9.3.

*“There must be better certification schemes that ensure everything is evaluated consistently, making it comparable” / Company 5*

#### 4.1.2 Actor-Level Challenges

Moving on, several challenges related to *company resources* at actor-level have been highlighted. Under this dimension, the sub-categories knowledge and expertise, financial resources and physical resources have been identified. Knowledge and expertise emerged as the most frequently mentioned challenge, with 8 out of 9 interviewees expressing uncertainty about how to interpret the directives.

*“Which parts are relevant for us, and how do we adapt this to our business?” / Company 7*

Notably, this knowledge gap was especially evident for the GCD, where levels of awareness and preparedness varied among companies. None of the SMEs interviewed has begun preparing for the directive; while some were familiar with it, others were entirely unaware of its existence. In contrast, most of the larger companies had already started preparing, although even here two of the large companies did not feel familiar with the directive at all. Regarding sectoral differences, both companies in the energy sector were preparing, while companies from the other sectors were spread across all three categories: unaware, aware but not preparing, and already preparing.

Looking at financial barriers on the actor-level, these were highlighted across all company sizes and sectors. Many highlighted how they struggle to allocate resources to the directives, while some expressed a direct loss of financial resources.

*“We simply don't have the financial resources required to comply with all the regulations and keep up with the latest updates” / Company 2*

The sub-categorisation physical resources related to reviewing current claims and gathering various types of data necessary to comply with the regulations. Putting resources on reviewing their green claims was mentioned as a challenge across all sectors and company sizes. While some companies expressed confidence that their current claims and categorization of sustainability would pass a third-party verification when that becomes applicable, several others acknowledged that their current claims and graphical representations are not aligned with the new regulations. Related to data

collection, many were worried about how to access the data needed to meet directive requirements, as well as the heavy administrative burden of gathering it.

*“Collecting data from each individual project is demanding” / Company 9*

Lastly, *organizational issues* encompass both company structure and internal values and norms. Companies across all sectors and sizes has highlighted that the company structure can create challenges, as there might not be an organizational unit working with these policies. Additionally, how to effectively communicate and implement policies across all levels of an organisation were brought up as a challenge by larger companies.

*“Especially since I sit alone in this role. I have absolutely no one to discuss with when it comes to these questions” / Company 6*

Further, values and norms at the actor-level were mentioned by all sectors, but only by large companies. They stated how it is challenging to get everyone onboard with prioritizing directives and sustainability, and difficult to incorporate it into a business plan.

## 4.2 Intermediary Strategies

The intermediary strategies at the system-level are related to the overarching support mechanisms of *managing and regulating* (analyse and validate data), *capacity building* (information support) and *problem solving* (financial support, develop and implement sustainable technologies), see figure 3 below. When looking at the actor-level strategies, these were identified within the overarching support mechanisms of *capacity building* (educational support) and *problem solving* (consultancy), see figure 4 below.

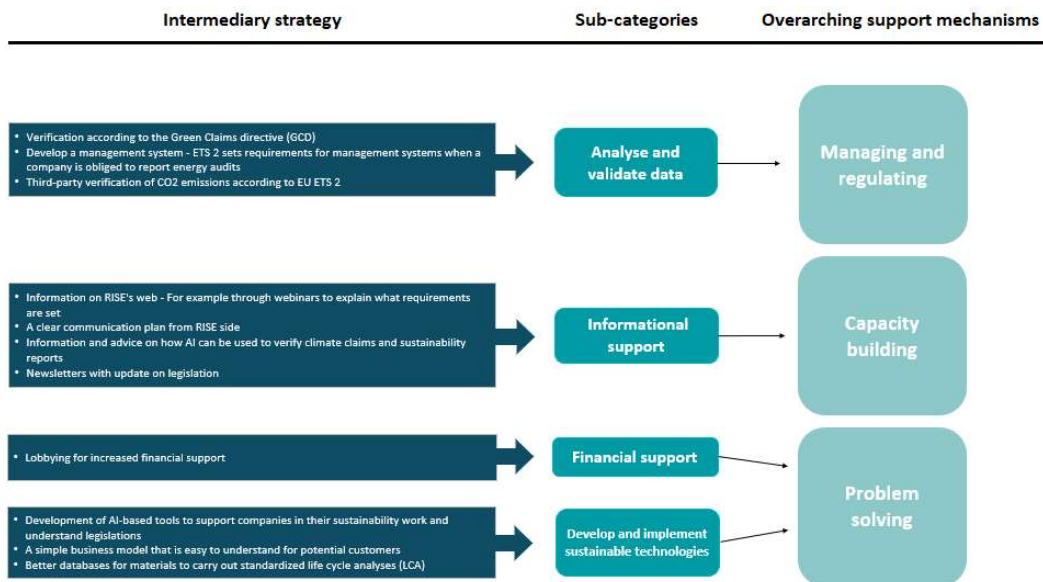


FIGURE 3. DATA STRUCTURE PROVING A GRAPHIC REPRESENTATION OF THE SYSTEM-LEVEL INTERMEDIARY STRATEGIES.

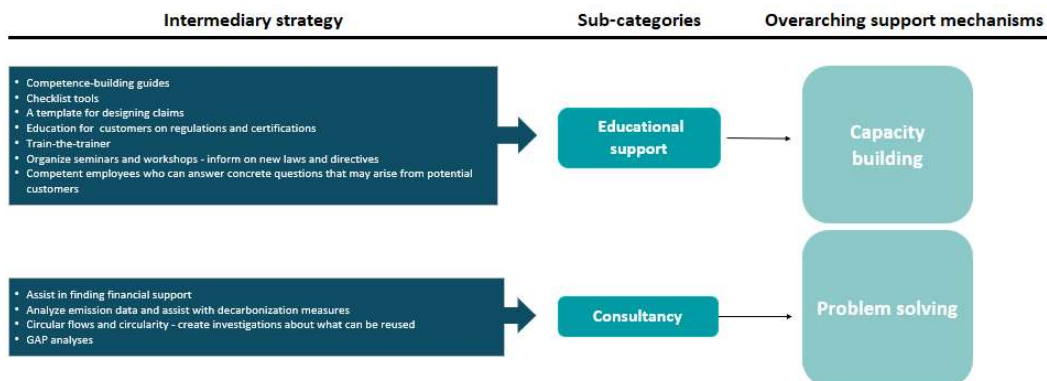


FIGURE 4. DATA STRUCTURE PROVING A GRAPHIC REPRESENTATION OF THE ACTOR-LEVEL INTERMEDIARY STRATEGIES.

#### 4.2.1 1.1.1 System-Level Strategies

Beginning at the system-level and *manage and regulate*, many expressed a need for some sort of accountant or verifier to meet regulatory compliance requirements in both directives during the interviews. This was mentioned across all sectors and by both SMEs and large companies as a strategy to address *infrastructural* challenges such as lack of verification schemes and information. In addition, similar needs were identified in relation to other EU Green Deal directives as well<sup>1</sup>.

<sup>1</sup> Additional verification schemes mentioned during the interviews included those related to verifying building disassembly, assessing circularity, and ensuring compliance with the EU Taxonomy.

*“We need some kind of accountant or someone that can put their stamp on that this is approved. Who should be accredited to be able to do this?”*  
/ Company 4

Furthermore, company 5 expressed the need for certification schemes to be developed in a way that ensures consistent evaluation, making comparisons between companies more reliable. Consequently, verifications schemes were a highly discussed topic during the workshop, with a lot of emphasis on developing generic verification services. See all strategies in appendix 9.5. This could be a third-party verification scheme of CO<sub>2</sub> emissions in relation to the reporting requirements from EU ETS 2, as well as a management system for EU ETS 2 when a company is obliged to report energy audits (according to the Energy Efficiency Directive (EED)).

Additionally, a third-party verification scheme for the GCD was highlighted by many during the workshop. This strategy also stemmed from the observation that all companies interviewed currently make green claims that have not yet been verified by an independent third party, which will most probably be a mandatory requirement under the GCD once it is adapted.

The stakeholders at RISE expressed how the development of all the verification services are highly relevant to RISE’s goals and capabilities. The verification services in accordance with the EU ETS 2 could be implemented in the relatively short term, as RISE already has significant experience with certification under the existing EU ETS 1 system. Verification of green claims on the other hand, requires the development of a new service, which is expected to be available within 1-2 years.

Moving on to *capacity building*, many expressed a lack of information during the interviews, regarding *how* and *what they needed* to do to comply with the requirements from the directives. This occurred across all sectors and all company sizes. Hence, informational support of various nature arose as another desired support aspect during almost all interviews to address *infrastructural* and *policy design* challenges. One suggestion was for RISE as an intermediary to develop clearer information on their website, specifically which entities that are covered by the regulatory requirements. Moreover, clear guidelines on the expectations set forth by the legislation.

Other proposed informational support initiatives included creating webinars or participating in industry fairs to inform about directives such as EU ETS 2 and GCD. Information on how to use AI to support compliance work was also requested. Furthermore, a clearer communication plan at RISE was highlighted as crucial during the workshop, to ensure accessibility of the provided information. Beyond EU ETS 2 and the GCD, the matter of informational support services was a widely discussed area during the interviews, that spread across more policies<sup>2</sup>.

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<sup>2</sup> The Corporate Sustainability Reporting Directive (CSRD), which is an EU policy supporting the EU’s Green Deal, was for instance widely brought up, along with the EU taxonomy.

Providing support strategies related to information aligned with RISE's objectives and they believed that the informational support strategies could be available in the near future. Stakeholders at RISE emphasized the importance for them as an intermediary to maintain visibility and demonstrate presence to attract and engage companies who are in need of support. Furthermore, the importance of ensuring that they have the necessary in-house competence to provide such information was emphasized. However, it remained to be decided who within the RISE organisation that will be responsible for this task.

Moving onto the *problem-solving* dimension, one recurring challenge from the interviews was the need for better financial support to comply with sustainability directives. To address these *financial* challenges at the system-level, an intermediary could potentially lobby with decision makers on the behalf of companies for increased financial support. However, acting as a lobbying party between companies and policymakers to increase financial support was not of high priority for RISE. This approach is not aligned with the support they can offer compared to other support strategies.

To aid with both *company resource-* and *organizational* challenges, another strategy involved developing and offering AI-based tools, that can help companies manage and interpret complex data and legislation. This was for instance mentioned by company 1 during the interviews:

*"A search generator: For example "Am I covered by the CSRD law?" and then you get an answer that you can trust, "no you are not covered", or "yes, you are covered" / Company 1*

It was further expressed during the workshop that this is something RISE would be willing to do. However, this is a relatively ambitious project and hence a long-term solution. Developing such tools requires significant competence, time and resources.

Company 2 further stated a need for better databases with information on materials, highlighting how there is nothing on the market that matches their companies needs right now. This is needed for carrying out standardized life cycle assessments (LCAs), that can be used to verify claims. Although it was expressed as a need during the interviews, it remains unclear if the is something RISE could provide.

Finally, based on the general impression from the interviews, RISE lay emphasis on developing a simple and easily accessible business model, that is easy to understand for customers on a system-level. This would enable efficient support for companies and to potentially reaching more companies with similar challenges.

#### 4.2.2 1.1.2 Actor-Level Strategies

Moving from the system-level, intermediary strategies were also discussed at the actor-level, both in the *capacity building* and *the problem-solving* dimension. When looking at *capacity building*, a recurring concern that emerged during almost all interviews was the lack of knowledge regarding the directives. Several companies emphasized the need for practical tools to aid with interpretation.

*“Competence-building guides as aids, like checklist tools. For example, if you are to interpret “Am I covered by this or not when you get a law?”*  
/ Company 1

*“I could need help with education initiatives. Specifically linked to the management team and linked to those who don’t usually work with sustainability, such as HR and finance.”* / Company 7

Educational support could make it easier for companies to understand what requirements are placed on them and how they are covered by a certain regulation or certification. This could be through developing support and guidance for interpreting legal requirements, such as educational one-to-one sessions, or seminars or workshops at companies regarding a certain directive. Furthermore, it could be templates or checklists for what can and cannot be said according to the GCD. Additionally, it could be training programs for other intermediary organizations, industry organisations or consultancy firms, that can assist in spreading knowledge further.

Seeing that there was a clear need for knowledge among companies linked to the specific directives, but also to EU climate policies in general, the workshop session featured extensive discussions on developing educational services to address challenges related to both *company resources* and *organizational* issues. The competence-building support strategies are relatively straightforward, and RISE realise the importance of implementing them as soon as possible, as it aligns with RISE’s objectives. However, the timing for providing this type of support depends on determining who will be responsible for these services and ensuring they have the necessary competence. The importance to possess the knowledge internally within RISE was further highlighted, as it is a crucial pillar to provide this type of educational support. Some knowledge is already available to be developed into a service, while competence-building guides, such as those for the GCD, still has to be created.

Furthermore, there were some intermediary strategies related to *problem-solving* at the actor-level through consultancy, to address *company resource* challenges. For instance, they could assist companies in identifying funding opportunities, such as national funding or sustainability vouchers. This has previously been done at RISE, but could be developed further. However, this was not recognized as a support strategy of priority for RISE during the workshop.

Lastly, one interviewee' (company 8), mentioned how an intermediary could support them by investigating the possibility of reusing materials and assessing material performance. This could be addressed through emissions data analysis and decarbonization initiatives. These measures could aid with lowering emissions and reducing financial barriers related to the EU ETS 2 framework. Additionally, aiding companies with GAP-analyses were mentioned during the workshop to integrate requirements into the customers operations. However, the former was not stated as a priority to RISE compared to the other support strategies during the workshop.

## 5 Analysis

Following the presentation of the empirical findings in the chapter above, this chapter compares the empirical findings with the analytical framework. Table 3 presents an updated version of the analytical framework based on the findings of this study. The findings are further elaborated in section 5.1 and 5.2, which highlight how certain findings were mentioned across multiple interviews, while others were specific to a certain firm. These sections also highlight observed differences and similarities between sectors and company sizes. Additionally, section 5.3 explores how these challenges and strategies interrelate, revealing gaps in current support mechanisms.

TABLE 3. ANALYSIS IN LINE WITH THE ANALYTICAL FRAMEWORK.

Level	Challenges	Intermediary strategies
System-level	Policy design - <b>Multitude of different legislation</b> - <b>Contradictive policy design</b>  Financial - Investment costs and returns - Availability and access to funding  <b>Cultural</b> - <b>Values &amp; Norms</b>  Policy risk - <b>Changes to legislation</b>  Infrastructure - Physical infrastructure* - Information - <b>Verification schemes</b>	Managing and regulating - Analyse and validate data  Capacity Building - Informational support  Problem Solving - Facilitate networks and collaborations* - Develop and implement sustainable technologies - <b>Financial support</b>
Actor-level	Company Resources - Knowledge and expertise - Financial resources - Physical resources - Social capital*  Organisational - Company structure - Values & Norms	Capacity Building - Educational support  Problem Solving - Consultancy

**Bold** - Newly identified challenges

Asterisk\* - Elements from the original framework not reflected in the empirical findings

## 5.1 Analysis of Challenges

This section presents the key challenges identified throughout the interviews, addressing the first research question: *What challenges do companies in the Swedish energy, manufacturing and building sectors face in relation to EU ETS 2 and GCD?* The analysis follows the order outlined in table 3, starting with system-level challenges and then moving on to actor-level challenges. As seen in the table, many challenges fitted within the overarching dimensions found in previous literature. However, one new overarching dimension was identified, as well as several new sub-categories.

### 5.1.1 System-Level Challenges

Beginning with *policy design* (multitude of different legislations, contradictive design) challenges, the two sub-categories were identified during the interviews and were not part of the initial framework. First, a common challenge across all sectors was the complexity caused by the multitude of legislations. While Peters (2018) argue that detailed policy design is necessary to address specific contexts, which some companies agreed with, several interviewees noted that excessive detail and variations of legislation can hinder comparability between companies and increase perceived complexity. This highlights a tension between the need for contextual relevance and the desire for harmonization and decreased amount of legislation to keep track of. One possible explanation to why the multitude of legislation has not been emphasised as a challenge in previous literature may be due to the unique context of this study, which focus on directives introduced as part of the EU's Green Deal, a very extensive and ambitious legislative package (Council of the European Union, 2024). The scale and diversity of this policy framework likely amplify the complexity experienced by companies, making it a more prominent issue in this study.

The second sub-category identified is contradictive policy designs. These contradictions have been noted for both the EU ETS 2 and the GCD. However, there was a pattern here, seeing that it was only mentioned from companies within the energy sector. As company 6 highlighted during the interviews, the contradictions regarding EU ETS 2 might lead to companies strategically increasing their emissions to gain emission rights, which then can be sold for profit. Consequently, complying with EU ETS 2 might encourage behaviour that undermines its intended goal – to lower emissions. However, the severity of these cases might not be widespread. Nonetheless, a potentially serious challenge related to the policy design of EU ETS 2, since the existence of such flaws in policy design can create counterproductive outcomes. Thus, this challenge emphasizes the importance of looking at challenges with policy implementation from a company perspective, to identify these types of contradictions.

Although the GCD applies to all sectors, contradictions on this directive were only highlighted by the companies within the energy sector as well. The companies highlighted the tension between simplifying information for public understanding whilst still ensuring compliance with the GCD's requirement for accurate and truthful

communication. However, this challenge might not be as isolated to the energy sector as the ones concerning EU ETS 2 policy design. It was possibly only highlighted by these two companies since they were more attuned to the directives demands and practical challenges, as these companies were amongst the few already actively preparing for the GCD. Viewed in a broader context, this misalignment between compliance and clarity for customers might discourage companies from following the GCD directive or communicating sustainability efforts. In a larger context this might discourage companies from pursuing sustainability efforts at all as they do not gain the public recognition for it in the same way as before. This underscores the importance of having intermediary organizations to provide clearer information.

Moving on, *financial issues* (investment costs and returns, availability and access to funding) was another challenge at the system-level. Challenges related to investment costs and returns was only highlighted by company 4 in the energy sector, concerning the EU ETS 2 and its indirect effects on price development. This aligns with McEwen's (2013) statement, that there is uncertainty regarding whether investments in compliance with policies will yield returns, and if so, how substantial those returns will be. The fact that the EU ETS 2 specifically targets fuel suppliers (see appendix 9.2 for more information; (European Commission, n.d.)) might explain why companies in other sectors did not express this challenge during the interviews. Nevertheless, as the directive includes all these sectors, companies beyond the energy sector are likely to be indirectly affected by an increase in fuel and energy prices in the near future.

Likewise, challenges regarding availability and access to funding were only mentioned by one company. This challenge was raised by company 7, which operate within the manufacturing industry. They emphasised the current difficulty to allocate economical resources toward sustainability initiatives, citing that they are a pressured industry at the moment.

Moving on to the newly identified system-level dimension, *culture* (value and norms), it was notably only raised by manufacturing companies. One company described the manufacturing sector as a particularly conservative industry, suggesting that norms and resistance to change may pose sector-wide barriers, making it difficult to argue for spending money on sustainability.

These sectoral differences could potentially be rooted in different demands from policy makers, suppliers or customers, where sectors with high public visibility potentially could face greater external pressure to comply with environmental policies, such as the GCD. Conversely, manufacturers operating at the early stages of the supply chain, may potentially experience weaker market signals and regulatory scrutiny. The relative invisibility of these firms to end consumers may shield them from the reputational and market incentives that drive sustainability efforts in more consumer-faced sectors, especially regarding directives such as GCD which are directly linked to business-customer communication. That said, seeing that these cultural challenges were only mentioned by one third of the companies within the manufacturing sector, this suggests that variation likely can exist within each sector. Generalizing this challenge to solely the manufacturing sector can therefore be premature. Nevertheless, the results create

basis for a deeper discussion, and it highlights the need for further investigation into how cultural dynamics manifests in each individual sector.

Notably, even if system-level challenges related to culture were a newly identified category, similar challenges related to values and norms have been identified at the actor-level in previous literature, referring to internal dynamics within individual firms (Kontturi, n.d.). The distinction here lies in the level of analysis, where the new system-level framing suggests broader, sector-wide values and traditions that may hinder responsiveness to the new directives.

Regarding *policy risk* (changes to legislations), the sub-category was newly identified. Changes to legislation contributes to an overall uncertainty and instability for companies and aligns with the definition of policy risk in previous literature, i.e. lack of continuity and commitment at the system-level (Bradley et al., 2016). While it was highlighted by companies within all sectors, this concern was raised exclusively by larger companies, suggesting a potential divergence in how policy risks are perceived based on company size.

A potential explanation to this divergence could be due to recent changes in EU legislations<sup>3</sup>, which occurred simultaneously to the interview process. This means that companies which have spent years preparing for certain legislations are no longer bound by them. Since many SME's hasn't been bound to these legislations in the first place, they might not in the same degree face these types of challenges as larger companies now do. Although these policy risk challenges seem general to the entire EU's Green Deal package, they might potentially be the reason some firms expressed hesitation in becoming early adopters with the GCD, seeing that the market feels uncertain and even a bit unserious as mentioned by some companies.

Turning to the final dimension at the system-level, *infrastructural* (information, verification scheme) challenges were identified. The lack of clear information appears to be a persistent challenge in alignment with previous literature. However, this is reasonable given the continuous introduction and changes of new legislations, such as the EU ETS 2 and GCD, which highlights the need for regularly updated information. For example, company 4 expressed how they are still waiting on information from the EU commission on how to create a monitoring plan for EU ETS 2, even though it was due months ago. This delay not only hinders companies' ability to comply, but also contribute to feelings of unseriousness. This could potentially reduce the company's motivation to invest time and undermine policy legitimacy.

Verification schemes were on the other hand a new sub-category. To fulfil the verification requirements, there are new verification schemes needed for both EU ETS 2 and most probably for the GCD. Without this infrastructure in place, this might also

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<sup>3</sup> The EU commissions newly presented the Omnibus package. This package comes with new suggestion on sustainability reporting, aiming at lowering the burden for European companies by increasing the thresholds, for instance on CSRD and the EU taxonomy (FAR, n.d.). In other words, multiple companies that have prepared for these legislations, are no longer subjected to the reporting requirements.

hinder compliance and undermine the policy credibility. This challenge might be particularly relevant to the directives EU ETS 2 and GCD at hand, where accurate verification are essential elements. However, as observed during the pilot study, there seem to be multiple other directives under the EU's Green Deal that also include verification requirements. This points to a wider issue and demand, where if development of verification infrastructure is not developed simultaneously to the regulatory frameworks, companies remain in a prolonged uncertain state. Ultimately, slowing down the acceleration needed to reach climate goals in Sweden.

### 5.1.2 Actor-Level Challenges

Moving on, several actor-level challenges have been highlighted in the interviews as well, both regarding *company resources* (financial resources, knowledge & expertise, physical resources) and *organizational* (company structure, values & norms) challenges, all of which has been found in previous literature. Within the *company resource* dimension, a widespread challenge was the lack of knowledge and expertise. In fact, this was the most frequently addressed challenge, as it was highlighted in 8 out of 9 interviews. This finding is consistent with McEwen (2013), who identified limited understanding of regulations, e.g. how to interpret the regulation, as a barrier to effective implementation. Additionally, lack of knowledge and expertise was not limited to the EU ETS 2 and GCD, but also mentioned in relation to other directives. This suggests a broader issue, likely relevant across a wider range of climate policies.

Further, financial challenges have been highlighted. In contrasts to financial challenges on system-level, these are more specific to the current conditions of a certain company. For instance, company 6 highlighted that they will lose a significant part of their budget due to the new EU ETS 2 system. Even though McEwen (2013) stated how financial resources can be larger for SME firms, there were no correlation between company size in our findings, seeing that many companies across all system sizes and sectors addressed this. Notably, although financial issues were not widely recognized issue at the system-level, financial aspects clearly remain a significant concern for many companies.

Moving on to the sub-category physical resources, this primarily involved gathering verifiable data to support green claims but also includes collecting data necessary to comply with other EU Green Deal directives. Both reviewing claims and gathering data are resource intensive and requires both time and personnel, hence they are categorised under the sub-category physical resources. As this was not limited to a certain sector or company size, it suggests that it represents a widespread concern.

Lastly, there are challenges related to *organizational* (company structure, values & norms) factors at the actor-level. According to (del Brío & Junquera, 2003), the absence of a dedicated organisational unit focused on managing environmental issues can be a challenge for policy implementation. In alignment with this, company 6 mentioned that it is challenging to work alone on these issues, while Company 7 highlighted the benefits of having support from the corporation.

While the literature suggests organisational challenges related to company structure are more common among SMEs due to resource constraints, the findings of this study indicate that this challenge is not exclusive to smaller firms, as it was highlighted across all company sizes and sectors. For example, company 9, despite being a large organisation, expressed difficulties in ensuring internal alignment and consistent communication, particularly in relation to the GCD. This suggests that while smaller companies might lack capacity, larger companies face complexity and coordination challenges that can similarly be a barrier to effective policy implementation.

Finally, the sub-category values and norms are identified at the actor-level. As described above, the sub-category values and norms also appears under the system-level challenges, where it refers to sector-wide or societal values and norms. At the actor-level, however, these challenges are specific to the beliefs and practices within individual companies, often related to getting certain functions within an organization to recognize the importance of sustainability efforts. As (Kontturi, n.d.) states, internal resistance can slow down policy implementation since it often requires change of internal structures. Although this challenge was relevant across all sectors, it was notably raised only by larger companies. This may be attributed to the complexity of engaging and aligning multiple internal departments within the company, where different units often operate with distinct priorities and logics. In contrast, smaller companies could instead potentially benefit from closer internal relationships, which can facilitate faster communication and understanding.

## 5.2 Analysis of Intermediary Strategies

This section presents the intermediary strategies identified during this study, answering research question 2 - *What type of strategies can intermediary organisations, such as RISE, develop to support companies in addressing these challenges?* The analysis follows the structure outlined in table 3, starting with system-level intermediary strategies and then actor-level intermediary strategies. When looking at our identified intermediary strategies, all fitted within the overarching support mechanisms found in previous literature. However, one new sub-category was identified and multiple new intermediary strategies tailored to EU ETS 2 and the GCD.

### 5.2.1 System-Level Strategies

To begin, there are several intermediary strategies within the support mechanism *manage and regulate* (analyse and validate data) at the system-level. These strategies are different types of verification schemes directly applicable to the EU ETS 2 and the GCD, all of which can be categorised under the sub-category analyse and validate data. These support strategies can, as mentioned by Rohleder (2006), promote compliance and promote stability in the market. Notably, the need for this type of support was identified across a broader range of legislation under the EU's Green Deal. This

highlights the importance of expanding intermediary strategies to address compliance challenges associated with a wider range of EU directives.

Moving on to the next overarching support mechanism at the system-level, several intermediary strategies were identified related to *capacity building* (information support). In alignment with what Franks & Bory (2017) stated about the need for sector-wide support in interpreting policy and clarifying demands, the empirical findings suggested several strategies applicable to the sub-category informational support. As identified in the findings chapter, this type of support can vary in format, ranging from webinars, information at fairs, and information on how AI can be utilized, but all serve the overarching goal of helping companies better understand and act on complex policy requirements.

Under the *problem-solving* (financial support, develop and implement sustainable technologies) support mechanism, two sub-categories were identified, aligning with previous literature. First, several strategies aligns with Mignon & Kanda (2018) argument that intermediaries can support with implementation and development of technology. In this context, the focus is on data-based services, such as AI, that facilitate companies' sustainability efforts and regulatory compliance. These strategies reflect a shift toward digital and automated strategies, highlighting how an intermediary can leverage technology to address complex regulatory and environmental challenges at the system-level.

In addition, financial support emerged as a potential new strategy under the *problem-solving* dimension. While this was not explicitly discussed in the existing literature as a role for an intermediary, both interview data and prior studies highlight financial constraints as a recurring challenge. In this context, the strategy of lobbying with policymakers for increased financial support could be interpreted as an extension of the network facilitation role described by Hudson et al., (2019), where intermediaries act as connectors between stakeholders and decision-makers. By leveraging their position within networks, an intermediary may help channel stakeholder concerns and advocate for more supportive policy instruments. Nevertheless, this was categorized under a new sub-category called financial support.

### 5.2.2 Actor-Level Strategies

Moving on to actor-level strategies, numerous intermediary strategies were identified within the *capacity building* (educational support) support mechanism. These strategies differ from system-level capacity building in that they are more targeted and context-specific. This distinction allows for a more nuanced understanding of how an intermediary tailor their strategies to different contexts. However, the boundary between the two is not always clear-cut. In practice, capacity building efforts often overlap, what begin as support for a single actor may evolve into a model for broader application, or vice versa. This fluidity emphasise what Torres & Steponavičius (2022)

stated, that the work done by an intermediary requires flexibility and receptiveness to the need of stakeholders.

Of importance is that RISE during the workshop expressed confidence that they could offer education and guidance without compromising impartiality. This perspective should be considered in relation to the concerns highlighted by Hudson et al. (2019), which emphasise that combining educational support with compliance can create conflicting interests, as they serve different purposes. The competence-building support strategies aims at guiding and assist companies in complying with regulations, while the verification services mentioned above should be an objective assessment of a company's compliance.

Lastly, several intermediary strategies were identified under the *problem-solving* (consultancy) support mechanism at actor-level. However, the nature of the support strategies observed in empirical data differs somewhat from what is emphasized in the literature. While Franks & Bory (2017) and Hudson et al. (2019) highlight an intermediary's potential to provide technical support, this study suggest that consultancy should also focus on assisting companies in securing financial resources and conducting GAP analyses to help companies integrate regulatory requirements into their operations.

These findings inform that while actor-level consultancy remains a relevant support strategy, its practical application may vary significantly depending on stakeholder needs. This further reinforces the importance of flexibility in an intermediary, as emphasized by Torres & Steponavičius (2022), and highlights the dynamic nature of problem-solving strategies in response to shifting regulatory requirements and market conditions.

### 5.3 Addressing Challenges Through Intermediary Strategies

This section maps the relationship between intermediary strategies and identified challenge. As figure 5 highlights, some challenges are addressed by multiple strategies, while others remain without a clear or direct solution. Notably, the distinction between system-level and actor-level challenges and intermediary strategies is not always clear-cut. In several cases, actor-level challenges can be supported through system-level strategies. For instance, development of an AI tool, which is a system-level strategy, could help address actor-level challenges such as limited physical resources or gaps in knowledge.

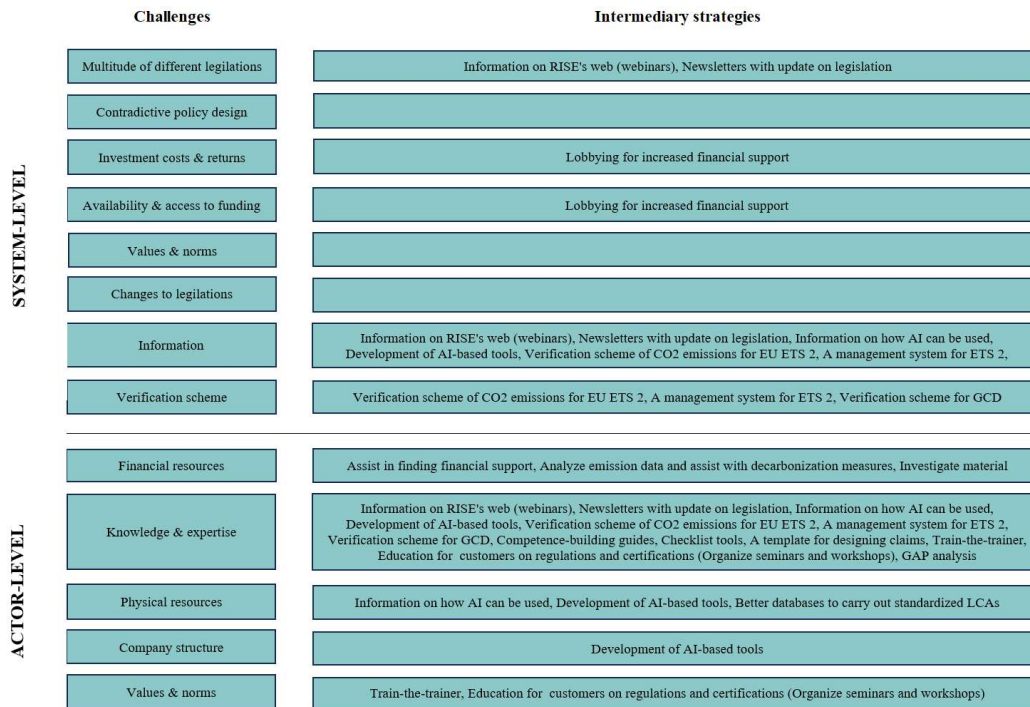


FIGURE 5. CONNECTING CHALLENGES WITH INTERMEDIARY STRATEGIES.

To begin, let's look at challenges that are addressed by one or several strategies identified in this study. Firstly, several challenges, particularly those related to lack of *infrastructure* (information, verification schemes) and *company resources* (knowledge & expertise) are directly addressed by multiple strategies, see figure 5.

Strategies focused on developing verification schemes not only address infrastructural challenges by providing the necessary framework, but also provide information and contribute to knowledge and expertise by helping companies better understand directives through the verification process. Notably, these strategies align strongly with RISE's overarching goals and many of them represent "low-hanging fruit", offering quick wins and support measures that can be readily implementable in the short term. The strategies related to providing information on RISE web (webinars), developing newsletters and spreading information on AI can also aid with multiple challenges, as it can provide the information missing as well as aid in understanding the directives better.

Looking solely on the *company resource* (knowledge & expertise) challenges, these types of challenges are linked to the highest number of intermediary strategies developed during the workshop. As illustrated in figure 5, these can be covered by additional strategies such as educational material and train-the-trainer approaches.

While these strategies primarily provide knowledge-building, they may also indirectly address *organizational* (company structure, values & norms) challenges by shaping values and norms within companies. For instance, educational programs may help

shape internal norms, yet it remains an indirect outcome rather than a targeted strategy. By equipping key individuals (trainers) to spread knowledge and practices internally, such a strategy can reinforce shared understandings and long-term behavioral change. Similarly, seminars and workshops provided directly by RISE to companies are not only means for competence building, but also strategies for influencing how sustainability issues are interpreted and prioritized. Engaging companies early in the process of compliance offers the opportunity to shape both working methods and attitudes, thereby actively contributing to the formation of norms and values (O'Donnellan, 2024).

More multifaceted strategies, such as the development of AI-based tools, could potentially address several challenges related to *company resources* (knowledge & expertise, physical resources) and *organizational* (company structure). Thus, these are more long-term in nature, where the development of AI-based tools holds significant potential to address a wide range of issues, but requires substantial time and investment. Support from AI tools may further help people working with policy compliance at a company to feel less alone/supported in the role, which was mentioned as an *organizational* (company structure) challenge.

Exploring these AI services might aid in increasing knowledge and streamline processes related to *company resource* (physical resources) challenges such as collecting data and verifying claims. These processes are both time consuming and complex, where AI could aid in proving, visualizing and verifying these sorts of data. Development of AI tools could moreover work on a system-level, aiding multiple companies simultaneously while still providing tailored support on requirements tailored to a certain operation. Still, these tools are resource-intensive and represent long-term solutions. Thus, in the short-term an intermediary could aid by spreading knowledge on how AI currently can be used in sustainability work.

Regarding *financial* (investment costs & returns, availability & access to funding) challenges at the system-level and *company resource* (financial resources) challenges at the actor-level, both have identified support strategies. While RISE could play a role in helping companies identify and access financial assistance, this is not currently considered a top priority for them. System-level strategies like lobbying for increased financial support are proposed but does not currently align with RISE's ambitions or mandate. As a result, this remains a partly addressed challenge.

Moving on, informational services could also help with *policy design* (multitude of legislation) challenges by providing a clearer understanding of requirements and aiding navigation through the regulatory landscape. However, it's important to note that while more information does not reduce the actual amount of legislation, it can have an indirect effect by making it feel less overwhelming.

Despite the multitude of intermediary strategies presented, several challenges remain insufficiently addressed at the system-level, highlighting critical gaps in the current implementation support landscape. One such gap concerns *policy design* (multitude of

different legislation, contradictive policy design) challenges. As discussed in the theory chapter, poor policy design can effectively hinder implementation at company level. While informational support may offer some relief by helping companies interpret and navigate complex legislative framework, it does not address the root cause of poor policy design. In other words, the support mechanism largely operates within the constraints of existing policy rather than influencing or improving the policymaking itself. Consequently, structural flaws in legislation, such as contradictory policy designs, remain unchallenged, leaving companies to shoulder the burden of misaligned or impractical regulatory demands.

Similarly, the frequently identified challenge with *policy risk* (changes to legislation) was not addressed by any of the listed strategies. This issue was not only emphasized in the interviews, but also widely acknowledged in the literature (Bradley et al., 2016; Dantata, 2016), yet it is not explicitly targeted by any of the intermediary strategies outlined in the analytical framework. Policy risk is rooted in political dynamics (Bradley et al., 2016), which could be difficult for individual companies or intermediary actors to control. While an intermediary might offer some indirect support, such as providing timely updates and interpretations (informational services), these efforts fall short of providing structural protection against policy volatility. Thus, policy risk continues to pose a significant barrier to long-term strategic planning and investment for policy compliance.

Lastly, another area where currently identified strategies fall short is the *cultural* (values & norms) dimension of implementation at the system-level. Systemic values and norms shape the way policies are interpreted, enforced and prioritized according to some of the interviewed companies. While some strategies, particularly those involving education or knowledge-sharing, might have indirect effects on values and norms at actor-level over time, they are not designed to address political attitudes at system-level. This underscores a potential expansion area for an intermediary.

## 6 Discussion

The study has provided a deeper understanding of policy implementation challenges faced by companies in Sweden in relation to EU ETS 2 and the GCD, as well as intermediary strategies to address these. While policy implementation challenges have been widely studied, the persistence of the implementation gap indicates that existing efforts are insufficient, a conclusion reinforced by the findings of this study.

To begin, the findings make it clear that the implementation gap is shaped by a complex mix of systemic and actor-specific challenges. The fact that multiple challenges were consistently raised across different sectors and company sizes suggests that these are not isolated issues confined to specific companies or industries. Instead, they point to broader, systemic shortcomings in how companies are currently equipped and supported to interpret and implement sustainability directives such as the EU ETS 2 and GCD.

Furthermore, the findings of this qualitative study did not reveal any clear or consistent distinction between companies across different sectors. While there were some indications of sectoral differences, such as manufacturing companies more frequently referring to cultural challenges and energy companies highlighting challenges linked to EU ETS 2 due to their direct exposure to the regulation, these patterns were not consistent across the sample. For instance, not all manufacturing companies mention challenges related to values and norms. Furthermore, a few differences were also observed based on company size, with larger companies more likely to mention challenges related to frequent legislative changes. However, these differences were relatively limited, and the small number of participating companies restricts the extent to which these findings can be generalized. This underlines the need for caution when interpreting the results. Nevertheless, these emerging trends that suggest potential sectoral and size-based differences warrant more extensive research to explore whether these variations hold across a broader sample.

What can be said with more certainty however, is that there was notable variation in companies' awareness, preparedness and overall maturity when it comes to sustainability work. The GCD pose a clear example where some companies had already begun preparing for it, while others were unaware of the directive or unsure whether it applies to them (which it does). In fact, several companies were hesitant to participate in interviews, explicitly citing that the directives do not apply to their company. These findings point to the importance of a dual approach when addressing policy implementation challenges, i.e. one that combines scalable, system-level strategies with context-specific, hand-on support at the actor-level. For an intermediary like RISE, this means adopting dynamic and cross-cutting support mechanisms, i.e. support mechanisms that allows them to engage at both system-and actor-levels.

However, doing so may require RISE to reconsider not just how they work, but how they see themselves. Although they already perform many intermediary functions in practice (RISE, 2025), RISE may not fully identify as an intermediary organisation in

the sense as described by theory, which may constrain their perception of the scope of activities they can engage in. Therefore, a key contribution of this study lies in encouraging RISE to embrace the role of an intermediary. This includes moving beyond traditional views of their mandate and exploring unrealised strategies for helping companies with the challenges brought up in this study.

For example, while RISE have explicitly mentioned they have potential to address a wide range of both actor- and system-level challenges, the findings reveal notable gaps between the challenges identified by companies and the strategies currently available to address them. These gaps are particularly evident in relation to systemic issues that originate upstream in the policy making process, rooted in political instability and policy design issues.

Given these systemic gaps, there is a strategic opportunity for RISE as an intermediary to extend their role beyond the already identified intermediary strategies and engage more proactively upstream in the policy process. For example, an intermediary like RISE could act as policy feedback facilitators, systematically collecting insights from companies and reporting them back to policymakers and thereby influencing the policy design. Additionally, an intermediary could potentially engage in scenario-based capacity building that helps firms prepare for varying policy futures, buffering companies for sudden changes and thereby partially mitigating the challenge of policy risk.

Alternatively, they could engage in strategies that promote networking among companies. Despite the clear presence of consistent challenges across companies, such as limited knowledge and policy design challenges, the empirical findings did not highlight networking and building social capacity as prominent intermediary strategies. The absence of such strategies is notable, especially considering how isolated many companies reported feeling in their implementation efforts. This suggests a potentially unexplored area where RISE as an intermediary could make significant impact by facilitating such networks.

Drawing on Mignon & Bergek (2016), social capital, defined as both credibility and social networks, this can profoundly influence a company's ability to engage and respond to new policies. These networks would not only validate strategies through peer credibility, but also act as platforms for sharing essential information and experiences.

Given this, the mobilization of sector-wide or even cross-sectoral networks could potentially serve multiple functions. They could facilitate trust-building, which might encourage companies to adopt earlier to legislation. Further, such networks provide a space for peer-to-peer learning and could reduce the feeling of loneliness when navigating the implementation of the new policies, in firsthand EU ETS 2 and GCD, but of course in the long run other legislations as well. Intermediaries might be able to support this by organizing thematic workshops (which was touched upon in the workshop and presented in the finding chapter), digital platforms or other forums where companies can share how they operate and concerns in real time, Such social

infrastructure would strengthen the social capacity of companies and potentially contribute to support the implementation of directives like the EU ETS 2 and GCD.

Alternatively, in cases where such engagement exceeds the scope or resources of a single actor like RISE, other types of intermediary organizations or actors would need to take responsibility for these types of support activities. For instance, policymakers could play a crucial role in enabling and supporting networks that foster knowledge exchange, policy feedback loops, and cross-sectoral collaboration. By including policymakers in this, it also enhances the possibility of more direct feedback from the companies to policymakers, which could potentially mitigate challenges related to policy design.

To conclude, while setting ambitious climate targets is essential to reach both global and national sustainability goals, it is equally important to ensure that adequate, accessible and context-aware support mechanisms are in place to have a successful implementation phase and achieve desired outcomes when introducing directives such as the EU ETS 2 and GCD. These insights hold significant practical relevance for both companies, intermediary actors and policymakers. These implications are discussed in the following sections.

## 6.1 Managerial Implications

### Implications for an Intermediary

Based on the findings of this study, several concrete recommendations can be made for how an intermediary can enhance its role in supporting companies with the implementation of the EU ETS 2 and the GCD, both in the short-and long term.

In the short-term, an intermediary organisation, such as RISE, should look into developing new verification schemes. For EU ETS 2 this should be initiated and introduced on the market as soon as possible. Regarding a third-party verification scheme for GCD, it presents more complex and long-term regulatory uncertainties. Nevertheless, pilot projects could be initiated with the early adopters identified in this study to build experience as well as the necessary framework for developing a third-party verification scheme for GCD.

Additionally, educational initiatives are another key area to develop. This knowledge transfer can be offered through webinars, workshops and guidance material, targeting not only the ones at the company who are working with sustainability but also other functions, such as communication, HR and finance. These educational initiatives could further be scaled to a “train-the-trainer” approach, training external consultants or industry organisations to spread knowledge more broadly.

Internally, an intermediary organisation may also benefit from strengthening their internal communications, to better leverage their internal expertise and enhance visibility of their existing knowledge and services.

Furthermore, an intermediary could also expand their advisory service around financial support, helping companies identify relevant funding opportunities and navigate application processes.

In the long term, an intermediary should look into the possibility of developing AI powered tools, aimed at assisting with policy compliance. Moreover, they could explore ways to act as a bridge between different companies and between companies and policymakers. This could enhance the social capacity and provide structured feedback to inform policy refinement and aid in closing the implementation gap from both ends.

### Implications for Companies

The findings also point to implications for companies, seeing that multiple challenges related to EU ETS 2 and the GCD aren't isolated to only an individual company. For instance, lack of knowledge or limited internal resources are not unique to one company, but rather reflect broader challenges. This suggests the importance of mobilizing networks and collaborations to spread knowledge across more companies. Moreover, companies can seek external support from intermediary organisations and mobilize around shared needs.

Lastly, seeing that companies struggled with getting all employees onboard on these directives, they could consider broadening the responsibilities related to sustainability to teams such as HR and finance. This could mitigate challenges related to company structures.

## 6.2 Implications for Policymakers

While the primary focus of this study was to explore the role of an intermediary organisation in the policy implementation process, the findings also yield important insight for policymakers. Especially in the light of several systemic challenges faced by companies that were harder for an intermediary to address, such as unclear policy design, insufficient support infrastructure, and exposure to policy risk. Since policymakers shape the very system in which intermediaries and companies operate, their decisions and priorities play a critical role in enabling successful implementation.

The study highlights a need for clearer, more accessible information, better coordination between overlapping directives and greater awareness of the unintended consequences of frequent legislative changes. To address these challenges, policymakers should find a way to balance the need for contextual relevance with harmonization of directives. Furthermore, they need to work on reducing overlap and contradictions between EU Green Deal directives and related national policies, while ensuring that EU- and national-level communication is aligned to prevent conflicting interpretations.

Additionally, establishing formal feedback mechanisms and networking would allow companies and intermediaries to share real-world challenges, helping to inform ongoing policy refinement. Regulations should also be accompanied by funding instruments to ease the cost burden of compliance, particularly for resource constrained firms. Lastly minimising abrupt legislative changes and clarifying long-term goals would reduce uncertainty and incentivise early adoption.

### 6.3 Future Research

This study contributes to the literature about policy implementation challenges related to EU ETS 2 and the GCD, particularly from a company perspective. Furthermore, how intermediary organizations, such as RISE, can aid in facing these challenges and closing the implementation gap.

Considering that both EU ETS 2 and the GCD are not yet in force, the associated challenges and relevant intermediary strategies are likely to evolve. Longitudinal research might therefore be suitable, to account for potential changes and assess the situation when the directives come into force. Expanding the sample size by including more companies during the interviews could also provide a deeper understanding of both research questions. In line with this, some companies might experience similar challenges compared to another, they simply might not have thought about it during the interviews. Thus, follow-up interviews could be suitable, to see if challenges identified in one sector, such as *cultural* (values and norms) in the manufacturing sector, also apply in the energy sector, enhancing the generalizability of result.

Moreover, some of the findings may reflect broader systemic issues, indicating a need to expand the scope of this study and include more quantitative methods. Including a larger number of interviewees, directives or sectors could provide further depth into the study, proving more robust and generalizable conclusions. Conversely, the fact that only one third of the manufacturing companies highlighted challenges related to operating in a conservative industry, indicates that sector-specific, in-depth qualitative studies may be valuable. Such studies could help uncover differences across operational fields and explore some of the trends identified in this study.

Regarding the intermediary strategies identified, future research could analyse their development- and implementation phase, to ensure that the companies are supported, and implementation gap is narrowed. For instance, given the request for digital tools from interviews and the tailored support it potentially could provide, AI features great interest for future research in the context of policy implementation.

Lastly, there was a gap in this analysis, seeing that certain challenges, see figure 5, were not addressed by an intermediary. This could be explored in the future, to further aid in addressing these challenges.

## 7 Conclusions

This study aimed to explore how intermediary organisations, like RISE, can support companies in implementing the EU ETS 2 and GCD in a Swedish setting. Using an analytical framework that considers both system- and actor-level dimensions, the study drew insight from nine interviews within the energy, manufacturing and building sector, as well as a workshop with stakeholders from RISE. This enables the identification of several key implementation challenges and potential intermediary support strategies to address them.

Companies face both system-level challenges related to *policy design, financial, cultural, policy risk and infrastructure* and actor-level challenges related to *company resources and organisational* structures. Intermediary organisations can address these challenges through several strategies related to three support mechanisms: *managing and regulating, capacity building and problem solving*. This includes, for example, third-party verification, educational support and development of AI-based tools. Additionally, the qualitative nature of this study together with the limited differences observed between sectors and company sizes, limits the ability to generalize the findings to entire sectors or company types.

Concludingly, this study offers a better understanding of how companies in Sweden experience the implementation of EU ETS 2 and the GCD, highlighting persistent and evolving challenges across sectors. The findings underscore the need for enhanced intermediary support on both system- and actor-level to bridge the implementation gap, with implications for both companies, intermediaries and policymakers.

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## 9 Appendix

### 9.1 Mapping of Directives

This section provides further information regarding the mapping of directives from the pilot study. The specific sectors to which each directive applies were identified, see figure 6. When categorizing an initiative into its respective sector, some data sources clearly stated which sectors the policy applied to. However, some did not provide this type of information, requiring assumptions on the sectoral assignment. Thus, uncertainties can be raised regarding the sectoral assignment to those initiatives not providing that information. With individual assumptions, this can introduce biases, and an inaccurate sectoral assignment.

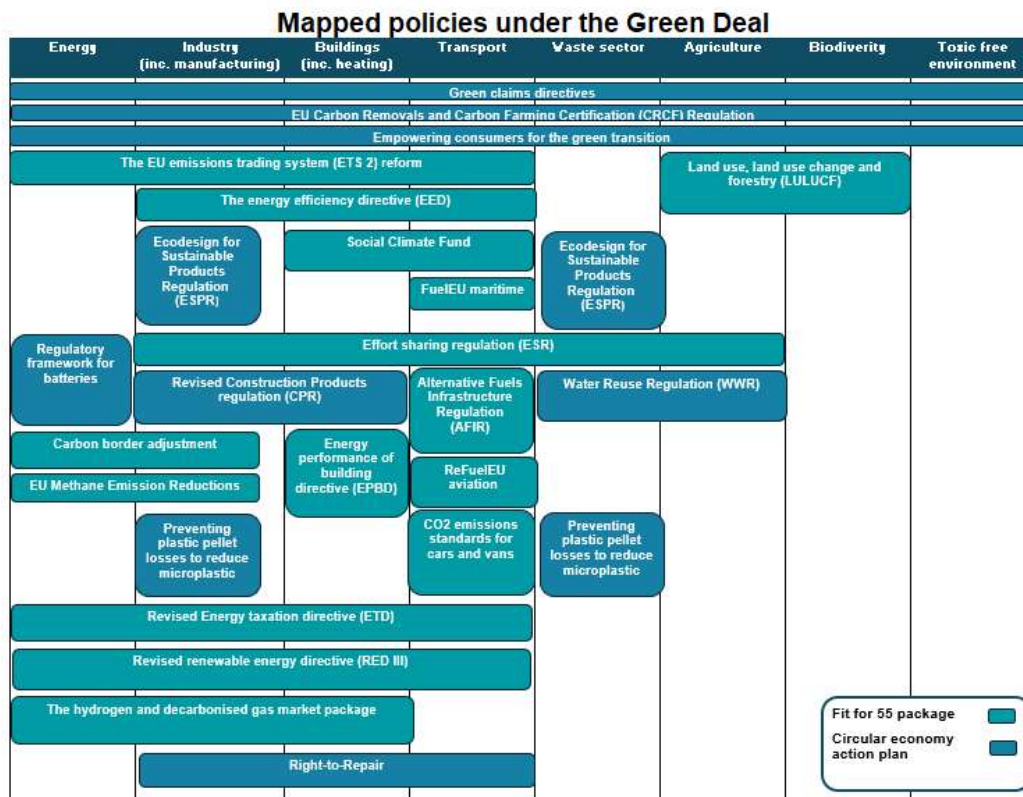


FIGURE 6. POLICIES UNDER THE EU GREEN DEAL MAPPED INTO SECTORS. THIS INCLUDES POLICIES BOTH UNDER THE FIT FOR 55 PACKAGE AND CIRCULAR ECONOMY ACTION PLAN.

### 9.2 EU ETS 2

EU ETS 1 has since 2005 been EU's key tool in reducing greenhouse gas emissions (Council of the European Union, 2025). The emission trading system requires

companies to pay for their carbon emissions, creating incentives for companies to reduce their emissions to reduce costs and meet requirements. Historically, it has been applied to manufacturing industries, facilities that produce heat and electricity and aviation. However, in 2022 the European Council and parliament reached an agreement on a reform, EU ETS 2. This reform will include more ambitious reduction targets and apply to CO<sub>2</sub> emissions from fuel combustion in buildings, road-and maritime transport. It will also apply to smaller industries and those manufacturing, energy and construction industries not already covered by EU ETS 1.

This approach aims to incentivise investments in low-emission mobility and building renovation (European Commission, n.d.). Furthermore, to target the emissions at the source where fuels enter the market and to act as a complement for other policies under the EU Green Deal. Although EU ETS 2 is a trading system like EU ETS 1, it is a separate cap and trade system that will cover emissions upstream, with its own emission cap and allowances (European Commission, n.d.) In other words, it will be fuel suppliers that becomes directly affected by the EU ETS 2 and are responsible for monitoring and reporting their emissions, rather than end consumers like households or businesses.

Every year by 30th of April, companies must submit an emission report for their emissions the previous year. This will have to be verified by an accredited verifier from 2026, to ensure readiness for implementation by 2027. From 2028 companies will have to surrender equivalent number of allowances by 31 of May. These allowances will have to be purchased at auctions (European Commission, n.d.). If requirements are not met, there will be penalties for non-compliance (European Union, 2023b). The penalty is €100 for each tonne of excess emissions (*Monitoring, Reporting and Verification - European Commission*, n.d.) Companies covered by the EU ETS 2 are required to hold an approved monitoring plan and a greenhouse gas emission permit by 1st of January 2025 (European Commission, n.d.). Furthermore, to verify their emissions reports and in some cases have a certified management system - when an installation must report energy audits under Article 8 of Directive 2012/27/EU (European Union, 2023b). According to (Naturvårdsverket, 2024) biofuels used within EU ETS 2 often needs some form of certification, proof of sustainability in accordance with RED II as well.

With current trajectory EU ETS 2 will be applicable in 2027. In case the gas or oil prices already are exceptionally high during 2026, the start of EU ETS 2 might be postponed to 2028, to ensure a smooth implementation (European Commission, n.d.). Further, if the price of allowances exceeds €45, additional allowances might be realised to address an excessive price increase during the first three years of operation (price adjusted for inflation based on 2020 prices).

### 9.3 GCD

The purpose of the GCD is to ensure substantiation in communication of explicit environmental claims (European Union, 2023a) Environmental claims refer to a non-

mandatory message used in commercial communication which suggest or imply that a product or trader has a positive or neutral environmental impact (European Union, 2023a). The directive will impact business across all sectors that make environmental claims directed to customers. This includes messages in the form of text, images, graphics, symbols, labels, brand names, company names, or product names.

A study conducted by the European Commission in 2020 showed that more than half of the environmental claims made in EU for a wide range of products provided misleading or had vague information (European Union, 2023a). By introducing a common standard for verifying environmental claims the European Commission contributes to EU's goal to ensure that consumers can make informed choices and actively participate in the sustainability transition. If the requirements on verification of environmental claims are not met, fines should act as a deterrent (European Union, 2023a).

The legislation includes business of varying size, from large multinational companies to small and medium-sized companies (SMEs) (European Union, 2023a). The only exception may be micro businesses, which refers to companies with fewer than 10 employees and less than a 2-million-euro turnover. Additionally, it will target not only businesses operating within the EU, but also companies outside the EU marketing to EU consumers (European Union, 2023a). The Green claims directive is not yet formally adopted and will be adopted earliest in the spring of 2025 (Svanen, n.d.).

## 9.4 Interview Protocol

### **General challenges**

- *Can you briefly share the company's view on sustainability?*
- *How familiar are you with the EU's Green Deal package?*
- *Is there anything in your operations that is directly affected by the EU Green Deal?*
  - *Why/why not? How?*
- *Do you see any challenges associated with the EU Green Deal?*
  - *Do you have any thoughts/plans on how you intend to address these challenges?*
  - *Does your industry have ideas on how to address them?*
  - *Are you considering handling this internally or with the help of external actors?*
  - *How have you addressed similar challenges in the past?*
  - *What methods work well, and what should be used?*
  - *Which methods work less well?*
  - *Do you have a method for keeping up with new legislative changes?*

## **Challenges related to EU ETS 2**

- *Are you familiar with EU ETS2?*
- *Are there specific challenges associated with EU ETS 2?*
  - *If so, what are they?*
  - *What are the biggest challenges in reducing emissions in your sector?*
  - *What are the biggest challenges in reducing emissions within your operations?*
- *Do you have any thoughts/plans on how to address these challenges?*
  - *Does your industry have ideas on how to address them?*
  - *Are you considering handling this internally or with the help of external actors?*
  - *How have you addressed similar challenges in the past?*
  - *What methods work well, and what should be used?*
  - *Which methods work less well?*

## **Challenges related to the Green Claims directive**

- *Are you familiar with the Green Claims directive?*
- *What type of environmental claims do you make today?*
  - *Do you communicate them to customers or suppliers?*
  - *How do you communicate these claims?*
- *What challenges do you foresee in complying with the directive on green claims once it is adopted?*
  - *Do you have any thoughts or plans on how to address these challenges?*
  - *Are you considering handling this internally or with external help?*
  - *How have you addressed similar challenges in the past?*
  - *What methods work well?*
  - *Which methods are less effective?*
- *What type of information regarding climate impact is being requested by your customers?*

## **Need for support**

- *What does your relationship with RISE look like?*
- *What type of support would you like to receive from an organization like RISE or similar actors?*

## **9.5 Two-Dimensional Matrix**

Figure 7 provides additional insights into the analysis of intermediary strategies discussed during the workshop with RISE representatives. The x-axis ranges from quick wins on the left to more long-term strategies on the right. The y-axis reflects





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