



Norwegian School of Economics

Bergen, Autumn 2024



The Impact of the CSRD on Management Control Systems

*A qualitative case study on whether and how a large,
multinational energy company's MCS are affected by the
CSRD*

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Master thesis, Accounting and Auditing

NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

Abstract

With the European Green Deal, the European Union (EU) aims to make Europe the first climate-neutral continent in the world by achieving net-zero greenhouse gas emissions by 2050. As part of this, the EU has recently introduced the Corporate Sustainability Reporting Directive (CSRD), mandating all large and all listed companies in the EU to comply with new, expanded sustainability reporting requirements. While the main objective appears to be improving transparency towards stakeholders, it is also stated as a tool aimed to influence corporate sustainability behaviour. However, the main findings of existing literature appear to be mixed on whether mandatory reporting requirements have real causal impacts on companies' sustainability-related activities and performance. On this basis, we aim to investigate whether mandatory reporting under the CSRD has influenced the management control systems (MCS) in large companies.

To answer our research question, we conduct a single case study on a large multinational energy company, collecting data through multi-purpose semi-structured interviews. Using Malmi and Brown's MCS framework to structure our findings, we find that the MCS at Energy ASA have so far remained largely unaffected following the introduction of the CSRD. While it has led to changes to administrative controls, these are mainly limited to governance structure with the purpose of ensuring compliance. The regulation has not changed their long-term planning and strategy or short-term actions. While they state to have made improvements to the internal reporting processes, this has not led to changes in the main internal indicators. Neither has it influenced their reward and compensation systems. Thus, the intended purpose of the CSRD to influence company behaviour does not seem to have materialised in practice within the company under study.

Attempting to explain our findings, two key factors are identified. First, sustainability was already well-integrated in their MCS prior to the CSRD, having started their pathway towards becoming net-zero years back. Second, the company has been engaged in sustainability reporting for more than 20 years.

Acknowledgements

This master's thesis is written as a part of the Master's program in Accounting and Auditing at the Norwegian School of Economics. Our research is part of a collaborative project with the study object, and we are grateful for the opportunities it has provided.

We would like to express our thanks to our study object and our contact person within the company, who has been a great help in conducting our research. We would also like to thank our interviewees for generously dedicating their time to make this study possible.

Furthermore, we are grateful to our research team. Being part of the team has been highly educational and has provided us with deep insight into the world of research. We would like to thank Vicky Arnold, Steve Sutton and Finn Kinserdal for their excellent collaboration.

Lastly, we express our gratitude to Finn Kinserdal also for being our supervisor. Your support, guidance and engagement in our study throughout the semester have been invaluable.

Bergen, December 20th, 2024

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1. Introduction

1.1 Background and context

Over the past few decades, sustainability has evolved to become a major global priority. As early as 1987, the Brundtland report *Our Common Future*, called for global action and change. It defined the concept of sustainable development, emphasising the importance of integrating environmental and social considerations in order to achieve economic growth (World Commission on Environment and Development, 1987). Since then, sustainability has evolved into a central focus in society. The increasing societal awareness is evident through multinational policies and agreements such as the United Nations's 2030 Agenda for Sustainable Development (United Nations, 2015), the Paris Agreement (United Nations Framework Convention on Climate Change, 2015) and the European Green Deal (European Commission, 2019). Particularly, in 2019, the EU set ambitious targets through the European Green Deal, designed to tackle climate change, "the biggest challenge of our times" (European Commission, n.d.-a). With these policies they aim to make Europe the first climate-neutral continent in the world, achieving net-zero greenhouse gas (GHG) emissions by 2050 (European Commission, 2019; European Commission, n.d.-a).

Multinational corporations have long been criticised for their major role in causing negative social and environmental impacts (Hart, 1997; Linnenluecke & Griffiths, 2013). Consequently, companies are expected to take significant responsibility in the transition toward a sustainable society and to be held accountable for the impacts of their operations. This expectation has, in turn, intensified the demand for corporate sustainability information.

In response to this demand, transparency has increased over the past three decades, with more and more large companies publishing sustainability reports (KPMG, 2022; Stolowy & Paugam, 2018). In particular, mandatory reporting requirements have been introduced over the past decade. In a European context, the EU's Non-Financial Reporting Directive (NFRD) of 2014 has received particular attention. In the introduction it explicitly states that "disclosure on non-financial information helps the measuring, monitoring and managing of undertakings' performance and their impact on society" (European Union, 2014, recital 3). Thus, the

regulation should not only be viewed as a compliance requirement for companies to increase transparency towards stakeholders; it is also intended to influence company behaviour by focusing on the sustainability information that matters to them.

Then, in relation to the European Green Deal, the Corporate Sustainability Reporting Directive (CSRD) was published in 2022 (European Union, 2022, recital 1). In Norway, the CSRD came into effect on November 1, 2024, marking the very first year that all large and publicly listed companies are required to comply with the regulation (Regjeringen, 2024). Compared to the NFRD, three main changes were introduced: a broader scope, requirements to use a reporting standard and assurance requirements (European Commission, 2021b). This significant expansion in reporting requirements, clearly implies an increased burden on companies to ensure compliance. Based on this expectation, we find it interesting to explore whether EU's intended purpose is being realised in practice.

Sustainability is an emerging field of research. Some prior studies investigate the relationship between voluntary sustainability reporting and internal activities (e.g. Adams & Frost, 2008; Biswas & O'Grady, 2016; de Villiers et al., 2016; Herremans & Nazari, 2016; Kerr et al., 2015; Lozano et al., 2016; Maas et al., 2016; Tilt, 2006). Additionally, with the introduction of reporting regulation, the interest in its impacts appears to have increased (Antonini & Gomez-Conde, 2024). Particularly, several studies examine the effects of the NFRD (e.g. Antonini & Gomez-Conde, 2024; Aureli et al., 2020; Cuomo et al., 2024; de Villiers et al., 2024; Dumay et al., 2019; Fiechter et al., 2022; Grewal et al., 2018). Furthermore, some studies investigate the impacts of other mandatory disclosures (e.g. Chen et al., 2018; Christensen et al., 2021; Jackson et al., 2020). However, the research findings appear to be inconclusive with regards to real causal effects on companies' sustainability-related activities and performance. Additionally, the impacts of the comprehensive CSRD remain largely unexplored.

In this thesis, we aim to contribute to the body of empirical research on the implications of mandatory sustainability reporting on corporate behaviour, within a European context. More specifically, we will explore how the newly introduced CSRD may affect large companies.

1.2 Research question

We aim to investigate *whether* the CSRD influences company behaviour. This leads to the following research question for the thesis:

Has mandatory reporting under the CSRD influenced the management control systems in large companies, and if so, how?

To explore whether the expanded reporting requirements under the CSRD have any real effects on companies' sustainability behaviour, we limit the scope to specific elements of management control systems. If the CSRD appears to have an effect, we investigate how. Additionally, we narrow the focus to the environmental dimension of sustainability, with particular attention to emissions and net-zero targets.

1.3 Methodology

We seek to answer our research question by using a qualitative method for data collection. The research is conducted as a single case study, exploring the real effects of the CSRD on a large multinational energy company. The study object is a major player in the oil and gas industry, making a substantial contribution to emissions. Therefore, it is interesting to analyse whether the company's behaviour is influenced by the mandatory CSRD requirements. Our study includes empirical work, with primary data collected through 14 semi-structured interviews. Our interviewees are carefully selected to represent various functional areas within the organisation, ranging from top management to middle managers across different countries. The data is analysed using thematic analysis and data display based on the five elements of Malmi & Brown's (2008) conceptual MCS framework. With this approach, we seek to gain an in-depth understanding of whether mandatory CSRD reporting has influenced the company's management control systems, and if so, how.

1.4 Relevance

This research question is relevant for several reasons. Firstly, the study could be of relevance to academic scholars. Much of the existing research appear to address the two aspects

separately. In particular, many studies appear to predominantly have an internal focus on companies' adoption of sustainability strategies and other activities (e.g. Arjaliès & Mundy, 2013; Beusch et al., 2022; Crutzen et al., 2017; Ditillo & Lisi, 2016; Garcia et al., 2016; Gond et al., 2012; Henri & Journeault, 2010). According to Traxler et al. (2020), research on the relationship between sustainability reporting and management control systems is still in its early stages, particularly regarding in-depth analyses, highlighting the need for more empirical studies. Our study is also motivated by a special issue from The British Accounting Review (BAR, 2023). They suggest that research could, for example, address how recent developments in sustainability reporting regulations impact organisations' perspectives on management control systems. Thus, despite growing academic interest in this topic, there remains a need for further exploration, particularly in the context of recent regulations.

Secondly, our study could be of interest to standard-setters and regulatory bodies. With the introduction of mandatory assurance and comprehensive disclosure guidelines under the CSRD, understanding the impacts of these amendments is relevant. This will inform policymakers about how the requirements are adopted and implemented in practice during the transition period and give insights into whether they contribute to their intended purpose.

Lastly, our study is likely to be of interest to both company management and stakeholders. It provides insights into how a large company responds to the new CSRD requirements, which could also serve as valuable guidance for other companies facing similar obligations. Given that large companies may have a significant negative environmental impact through their operations, this study should also be of interest to stakeholders and the society, enabling them to hold companies accountable for their actions.

1.5 Outline

In Chapter 1 we introduced our motivation for conducting this study. Chapter 2 elaborates on the CSRD, while Chapter 3 presents a theoretical framework for MCS. Chapter 4 establishes a theoretical foundation by presenting relevant theories and a critical literature review. In Chapter 5, we discuss the methodology used to investigate the research question. Next, Chapter 6 presents our empirical findings. Chapter 7 discusses these findings in relation to

existing literature and relevant theories. Finally, in Chapter 8, we conclude by answering the research question, addressing limitations, and suggesting areas for further research.

2. The Corporate Sustainability Reporting Directive

In Chapter 2, we seek to provide an overview of the Corporate Sustainability Reporting Directive. The EU has over the years introduced several directives regarding sustainability reporting. Therefore, Section 2.1 outlines the evolution of EU regulations on sustainability reporting, culminating in the development of the CSRD. Next, we present the CSRD and its requirements in Section 2.2. Lastly, Section 2.3 emphasises the objectives of the CSRD.

2.1 Development of the EU regulation on sustainability reporting

As part of the European Green Deal, the EU has developed directives to strengthen sustainability reporting requirements for companies (e.g. European Union, 2020; European Union 2022). Adopting a double materiality perspective, the directives require companies to disclose information on how sustainability matters influence their business operations, but also how their activities impact society and the environment (European Union, 2022, recital 29).

However, the EU's focus on sustainability is not something new. It began in many ways as early as 2001 with the Green Paper (Commission of the European Communities, 2001), an initiative that can be seen as the precursor to the EU Directives on sustainability reporting (de Villiers et al., 2024).

Previous directives, such as Directive 2003/51/EC and Directive 2013/34/EU, also expected companies to include information on environmental and social aspects in public reports, but only “where appropriate” and if such information was “necessary for an understanding of the company's development, performance or position” (European Union, 2003, recital 9; European Union, 2013, recital 26 and Article 19.1).

It was not until 2014, with the introduction of Directive 2014/95/EU (which we refer to as the NFRD), that it became mandatory for certain large companies in the EU to publicly report sustainability information (European Union, 2014, recital 6).

Finally, the Directive (EU) 2022/2464 (which we refer to as the CSRD) was published in the Official Journal on December 14, 2022, and came into force on January 5, 2023, amending

the NFRD. 2025 will be the first year in which companies under the scope of CSRD will report in accordance with the requirements of this directive, covering information from the financial year 2024 (European Commission, n.d.-b).

2.2 The CSRD requirements

The CSRD states who needs to report and what they have to report on. It involves a significant expansion of the previous EU rules on sustainability reporting. Mainly three changes have been introduced; a broader scope, requirements to use a reporting standard, and assurance requirements (European Commission, 2021b), with the first two amendments being the most relevant to our research question.

First, there has been an increase in the number of companies covered by the reporting requirements. While approximately 11,600 companies were subject to the NFRD, the scope is expected to increase to around 49,000 companies under the CSRD (European Commission, 2021b). Slightly simplified, the CSRD will apply to all large and all listed companies on regulated markets in the EU (European Commission, n.d.-b). However, initially, in 2025, it will apply only to those companies that were previously covered by the NFRD (European Union, 2022, Article 5.2.a)

Secondly, there has been a significant expansion in what to report on. Some general reporting requirements under the CSRD are listed in Article 1.4, which amends Article 19a of the NFRD. Companies must disclose information about their business model and strategy concerning sustainability matters, including risks and opportunities, and the implementation process. This also covers specific plans and actions aimed at ensuring alignment with agreements on sustainability goals, such as achieving climate neutrality by 2050. Additionally, companies are required to describe their own sustainability targets and provide progress updates. They must also describe their policies related to sustainability matters, along with any potential adverse impacts of their operations and actions taken to address them. Furthermore, companies must include a description of the role and expertise of the board and management with regard to sustainability matters, as well as disclose the existence of incentive schemes linked to sustainability matters that are offered to these bodies (European Union, 2022).

Moreover, companies subject to the CSRD have to report according to the new mandatory European Sustainability Reporting Standards (ESRS) (European Commission, 2023). These standards include substantially more detailed requirements than what is outlined in the CSRD. The ESRS are divided into two cross-cutting standards, ESRS 1 and 2, in addition to three topical standards: environment (ESRS E), social (ESRS S) and governance (ESRS G). As stated in ESRS 1, the topical standards cover four generic areas: governance, strategy, impact, risk and opportunity management, and metrics and targets. The topical standards are further divided into sub-topics, which again are divided into sub-sub-topics (EFRAG, 2022a).

To illustrate the standards with an example, the topical standard ESRS E comprises five sub-topics, ESRS E1 to E5. ESRS E1, “Climate Change”, is further divided into nine sub-sub-topics, labelled ESRS E1-1 to ESRS E1-9. Each of these sub-sub-topics have specific disclosure requirements. These requirements include general disclosures related to climate-related transition plans, policies and actions, as well as disclosures on specific emission reduction targets and metrics. Examples of such metrics include gross scope 1, scope 2, scope 3, and total GHG emissions (EFRAG, 2022b). This underscores the expansive nature of the reporting requirements under the CSRD. According to one of the interviewees, companies have to comply with approximately a hundred new specific disclosure requirements.

Compared to the past, the NFRD did not mandate the use of a reporting standard (European Commission, 2021a). The NFRD solely required companies to include “a non-financial statement containing information to the extent necessary for an understanding of the undertaking’s development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters” (European Union, 2014, Article 1.1).

Companies under the scope of the CSRD also have to comply with Article 8 of Regulation (EU) 2020/852, concerning the EU taxonomy (European Union, 2022, recital 17). The EU taxonomy is a classification system that defines the criteria for an economic activity to be considered “environmentally sustainable” (European Commission, n.d.-c). The regulation requires companies to report on their alignment with the EU taxonomy and to disclose specific key performance indicators (KPIs) in the sustainability report for any taxonomy-aligned activities (European Union, 2020, Article 8).

Lastly, the amendments to the EU reporting directives also have implications for the role of management and the board of directors. All undertakings, without exemptions, are required to disclose the sustainability information in a dedicated section of the management report (European Union, 2022, recital 57). As under the NFRD, the management and the board are collectively responsible for “ensuring that the management report is prepared and published in accordance with the requirement of the directive” (European Union, 2022, Article 1.11). This means that they must sign off on the report (Antonini & Gomez-Conde, 2024). However, with the CSRD, this responsibility now includes compliance with the EU’s sustainability reporting standards, which significantly expand the range of required sustainability information.

2.3 The objectives of the CSRD

The main objective of the EU regulation is to improve the sustainability information available to investors and other stakeholders, in order to meet their growing demand for information. The European Commission highlights:

Users will benefit from better access to comparable, relevant and reliable non-financial information from more companies. This will reduce the risks of investing in the financial system, increase financial flows to companies with positive social and environmental impacts, and make companies more accountable. (European Commission, 2021b)

In other words, improving companies’ transparency on sustainability matters appears to be their main objective.

However, in the larger context, the reporting requirements seem to be intended as a tool to influence corporate behaviour. As mentioned in Chapter 1, the European Union (2014, recital 3) in the NFRD states that “disclosure of non-financial information helps the measuring, monitoring and managing of undertakings’ performance and their impact on society”. This objective is also reflected in the CSRD. For example, recital 12 highlights that “sustainability reporting can help undertakings identify and manage their own risks and opportunities related to sustainability matters” (European Union, 2022, recital 12). Furthermore, recital 14 states

that “the lack of generally accepted metrics and methods for measuring, valuing, and managing sustainability-related risks is also an obstacle to the efforts of undertakings to ensure that their business models and activities are sustainable.” (European Union, 2022, recital 14). This suggests that the EU also expects companies to benefit from such reporting, as they can use the information to better manage their practices and activities regarding sustainability.

The emphasis on companies’ sustainability-related activities is also evident through several of the reporting requirements outlined in Article 1, point 4 of the CSRD (European Union, 2022), which are further elaborated in the ESRS. This increased transparency regarding various sustainability activities may also indirectly put pressure on companies to improve their internal practices (Antonini & Gomez-Conde, 2024).

2.4 Summary

To summarise, Chapter 2 accounts for the new EU directive, the CSRD. By mandating all large and all listed companies to comply with comprehensive and extensive reporting requirements, the directive aims to both increase companies’ transparency on sustainability matters and influence company behaviour, including the integration of sustainability into management control systems. This forms the foundation for the literature review, examining whether this intended influence has materialised in practice.

3. Theoretical framework for MCS

In this chapter, we present a theoretical framework for the concept of Management Control Systems. There are many different definitions of MCS (Malmi & Brown, 2008). For the purpose of this thesis, we refer to the definition provided by Malmi & Brown (2008). They have also created a conceptual framework which in this thesis will be used when analysing the impacts of the CSRD on companies' MCS.

Malmi & Brown (2008, p. 290) define management controls as “those systems, rules, practices, values and other activities management put in place in order to direct employee behaviour”. For management controls to be considered “complete systems”, they must be more than “a simple rule” or “pure decision-support systems” (Malmi & Brown, 2008, pp. 290-291). Thus, the definition by Malmi and Brown (2008) encompasses all activities that managers use to direct or influence the behaviour and decisions of employees, to ensure they align with the objectives of the company. Moreover, Malmi and Brown (2008, p. 287) focus on the idea of viewing MCS as a “package” of interconnected controls within a broader control system, rather than as systems operating in isolation.

Based on this perspective, they have created a broad conceptual framework for a company's MCS package consisting of five components: administrative controls, planning controls, cybernetic controls, reward and compensation controls and cultural controls (Malmi & Brown, 2008). *Figure 1* provides an overview of this framework.

Cultural Controls						
Clans		Values			Symbols	
Planning		Cybernetic Controls				Reward and Compensation
Long range planning	Action planning	Budgets	Financial Measurement Systems	Non Financial Measurement Systems	Hybrid Measurement Systems	
Administrative Controls						
Governance Structure		Organisation Structure			Policies and Procedures	

Figure 1: MCS package (Malmi & Brown, 2008, p. 291)

First, *administrative controls* include three aspects: organisational design and structure, governance structures and procedures and policies. Organisational structure refers to the organising of individuals and groups. Governance structure focuses on the distribution of responsibilities and accountability for behaviour among employees. Lastly, procedures and policies are supposed to guide employee behaviour by specifying how activities should be performed (Malmi & Brown, 2008).

Next, *planning controls* include the process of setting goals and actions with the objective of steering the efforts and behaviour of employees in the desired direction. Malmi and Brown (2008) divide these into two components: action planning and long-range planning. Action planning involves establishing goals and actions for the short term, typically within a 12-month period, and offers a tactical focus. Long-range planning has a more strategic focus on goals and actions for the medium and long term. Hence, planning controls may have a major role in directing employee behaviour (Malmi & Brown, 2008).

By *cybernetic controls* Malmi and Brown (2008) refer to systems that monitor performance by linking targets to actions through feedback loops. Based on a definition by Green and Welsh (1988), the system can be divided into five key elements: setting standards or targets, measuring performance, comparing actual performance to the targets, providing feedback on any deviations, and modifying behaviour based on the feedback. Furthermore, Malmi and Brown's framework includes four basic cybernetic systems: budgets, financial measures, non-financial measures and hybrids combining financial and non-financial measures (Malmi & Brown, 2008).

Moreover, *reward and compensation controls* focus on motivating and increasing the performance of individuals and groups by aligning their goals with those of the organisation (Bonner and Sprinkle, 2002; as cited in Malmi & Brown, 2008).

Lastly, three aspects of *cultural controls* are considered: value-based, symbol-based and clan controls (Malmi & Brown, 2008). First, value-based controls are described as the explicit organisational definitions communicated by management to provide the desired values, purpose and direction (Simons, 1995). Second, symbol-based controls refer to the use of visible expressions created by companies to foster a certain culture, such as building design (Schein, 1997; as cited in Malmi & Brown, 2008). Third, clan controls refer to the existence

of subcultures within different parts of the company and how their socialisation processes affect the values of the group (Ouchi, 1979; as cited in Malmi & Brown, 2008).

Malmi and Brown (2008) also consider some challenges of studying MCS as a package. For example, the broad scope may come at the expense of details in the discussions of the individual control systems, which can each be large and complex in their own. However, for the purpose of this thesis, the concept of MCSs as a package will primarily be utilised to structure the analysis into categories, thereby enabling us to provide a sufficiently broad perspective.

4. Literature review & theoretical foundation

In Chapter 4, we begin Section 4.1 by defining the key terminology used in this thesis. Section 4.2 introduces some established theories that contribute to the understanding of why mandatory reporting in general is necessary and explore potential impacts on company behaviour. In Section 4.3, we review existing literature on the effects of sustainability reporting on companies' behaviour. Based on our findings in the literature review, Section 4.4 elaborates on the development of the research question.

4.1 Key terminology

This section seeks to clarify how key terminology is being used in this thesis. In practice, terms like “non-financial”, “sustainability” and “corporate social responsibility (CSR)” are often used interchangeably by both academics and standard setters (Stolowy & Paugam, 2018). However, some argue that these terms have slightly different meanings. For example, in the CSRD, the term “non-financial” is considered inaccurate “because it implies that the information in question has no financial relevance” (European Union, 2022, recital 8). Based on this, the EU has decided to use the term “sustainability” (European Union, 2022, recital 8). Moreover, a significant amount of research articles uses the term “CSR” (Huang & Watson, 2015; Stolowy & Paugam, 2018). According to McWilliams and Siegel (2001), the definition of CSR involves social and environmental corporate actions that go beyond legal requirements and the interest of shareholders.

Despite the lack of generally accepted definitions, the terms appear to be closely related with regards to meaning. As our project is concerned with the CSRD, we will mainly follow the EU terminology and use the term “sustainability reporting”. By “sustainability reporting” the EU refers to “reporting information related to sustainability matters”, where sustainability matters include “environmental, social and human rights, and governance factors” (European Union, 2022, Article 1.2.b). Furthermore, terms like “reporting”, “information” and “disclosure” will be used interchangeably.

However, this thesis primarily focuses on the environmental dimension of sustainability. According to the ESRS, this includes aspects such as climate change, pollution, water and

marine resources, biodiversity and ecosystems, as well as resource use and circular economy (EFRAG, 2022a). Thus, the term is much broader than our specific focus on emissions and net-zero goals.

As presented in Chapter 3, Management control systems is another key term used in this thesis. However, previous literature on the real effects of mandatory sustainability reporting also refers to terms such as “activities” and “performance”. Similar to Tilt (2006), we make a clear distinction between these terms. For the purpose of this thesis, the term “activities” refers to concrete actions that a company undertakes to reduce its environmental impact, while “performance” refers to the actual outcomes or results of these actions. MCS refer to all types of management activities implemented to steer employee behaviour towards (in this case: sustainability-related) specific activities.

4.2 Relevant theories

In this section, we present several theories that are relevant to the context of mandatory reporting. To begin, we seek to examine why mandatory reporting is necessary through the lens of the Friedman doctrine. Then, we introduce theories that offer insights into why companies engage in activities beyond direct revenue generation. Finally, we explore why external reporting itself is expected to influence company behaviour, encouraging them to assume social responsibility.

In 1970, Milton Friedman published an article in *The New York Times* titled “A Friedman Doctrine: The Social Responsibility of Business is to Increase Its Profits” (Friedman, 1970). In this article, Friedman states that in a free society, “there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud” (Friedman, 1970).

Building on the Friedman Doctrine, businesses would have no incentive to engage in activities unless these activities directly contribute to revenue, exceeding their costs. Consequently, they are unlikely to voluntarily report unless transparency itself directly leads to an increase in stock price and revenue, for example, by reducing information asymmetry (Diamond &

Verrecchia, 1991; Healy & Palepu, 2001). Without such incentives, information asymmetry between the business and its stakeholders would persist. This asymmetry could result in a market failure, such as adverse selection, thereby supporting the need for mandatory reporting (Akerlof, 1970).

It may be stated that companies today diverge from the principles outlined in the Friedman Doctrine, as companies hold a broader responsibility beyond simply maximising profit. In instances where companies engage in activities beyond direct revenue generation, such as sustainability reporting, newer theories seek to explain the diverse motivations driving such actions.

Legitimacy theory suggests that firms maintain legitimacy by aligning with societal values and norms to fulfil implicit social contracts with the society in which they operate (Velte, 2023). Next, institutional theory focus on how organisations are shaped by the institutional frameworks they operate within, including direct pressure from regulations and stakeholders, imitation of companies and institutional norms and practices (de Villiers, 2024). The stakeholder theory prescribes that organisations must not only be accountable to investors and funders but also balance a wide range of stakeholder expectations and interests (Freeman, 1984). Lastly, the signalling theory claim that organisations disclose information to point out their values, goals and outcomes with respect to diverse social and ethical issues (Bini & Bellucci, 2019). Thus, companies' actions may extend beyond pure profit-driven motives due to social contracts, institutional frameworks, stakeholders' interests and expectations, or just to disclosure "good news".

Mandatory external reporting can serve as a powerful tool to change company behaviour. Mandatory disclosure rules reduce certain selection problems because the decision to report is not left to individual companies (Christensen et al., 2021). By providing transparency, external reports allow stakeholders to effectively compare the performance of different companies. This creates pressure for companies to demonstrate compliance with social and institutional norms to maintain legitimacy, and to make behavioural changes that better address stakeholder needs and expectations. Companies that fail to meet these demands risk losing employees, suppliers, customers, and, ultimately, revenue. As a result, mandatory external reporting may encourage companies to engage in activities they might not have pursued otherwise. However,

we have found no theory addressing whether this influence materialises in practice. Therefore, we focus our literature review on solely sustainability reporting, examining whether previous research has demonstrated such findings.

4.3 Literature review – prior research

Research on the effects of sustainability reporting is still in its early stages (Traxler et al., 2020). However, with the introduction of regulations, researchers seem to have become more interested in its impacts (Antonini & Gomez-Conde, 2024). In this section, we aim to provide an overview of existing literature on the impacts of sustainability reporting on company behaviour, with a particular focus on mandatory reporting requirements.

To conduct the literature search, we have primarily used NHH's library single search interface. This provides access to a range of peer-reviewed academic journal articles. We initially searched for articles investigating the link between external sustainability reporting requirements and internal practices and activities, using relevant search terms. At this stage, we focused on recent articles published in highly ranked journals within accounting, such as "Accounting, Organizations and Society" and "Management Accounting Research", and preferably those with many citations. Once a few relevant journal articles were identified, we reviewed their reference lists to add to our literature review. Additionally, recent "review articles" on this topic were particularly helpful in identifying additional studies.

To ensure our literature review provides comprehensive coverage, we expanded our scope. We included articles from journals outside the core accounting field, such as the *Journal of Cleaner Production*. We also considered studies examining the effects of reporting requirements beyond the EU directive. Informed by institutional theory, we expect companies to respond in similar ways to different sustainability reporting regulations. However, we acknowledge that geographical differences and variations in sustainability disclosure regulations may affect comparability, as other regulations tend to be more specific and less comprehensive than the EU directives (Christensen et al., 2021). Additionally, we reviewed studies on the impacts of voluntary reporting, as sustainability reporting has primarily been voluntary until recently. However, the lack of regulatory pressure in this context may introduce further comparability challenges. The voluntary element makes it particularly difficult to

assess causality. As an example, a potential positive correlation between voluntary sustainability reporting and sustainability activities could instead be explained by companies already engaged in sustainability choosing to report in order to signal their good performance, while others may refrain from reporting (Christensen et al., 2021; Bini & Bellucci, 2019). Nevertheless, we find it interesting to examine the relation also for these studies. Despite broadening the scope of the literature review, we tried to keep the focus on how these prior studies relate to our own research question.

In the following, we summarise and compare the key findings from nine prior studies considered relevant to our research question. Seven of these studies investigate the real impacts of mandatory sustainability reporting on corporate behaviour, with five focusing specifically on the NFRD and two on requirements beyond the EU directives. Additionally, the review is supplemented by two studies discussing the effects of voluntary sustainability reporting.

The existing literature presents varied findings regarding the relationship between sustainability reporting and corporate sustainability behaviour. Among the five identified studies examining the effects of the EU's NFRD (Antonini & Gomez-Conde, 2024; Aureli et al., 2020; Cuomo et al., 2024; de Villiers et al., 2024; Fiechter et al., 2022), four of them perform difference-in-differences regression analyses attempting to identify a causal effect on corporate sustainability. First, Antonini and Gomez-Conde (2024) suggest that the NFRD has had a significant and positive effect on the adoption of environmental management control systems. Similarly, Cuomo et al. (2024) argue that the NFRD has led to an increase in environmental performance. On the other hand, Fiechter et al. (2022) find no significant impact of the NFRD on environmental activities, while de Villiers et al. (2024)¹ conclude that the slight improvement in environmental performance cannot be directly attributed to the NFRD. Thus, the evidence on causal effects remains scarce and contradictory.

The remaining studies included in our literature review suggest a positive relationship but do not establish causality. A single case study by Aureli et al. (2020) finds that an Italian listed

¹ We are aware that this article was withdrawn on December 6th 2024, due to what the publisher describes as a “procedural error”. It was intended for a later issue of the journal. DOI: <https://doi.org/10.1016/j.bar.2024.101437>

company made changes to corporate practices following the NFRD, beyond the minimum regulatory requirements. Similarly, the two studies examining the effects of mandatory sustainability reporting requirements beyond the EU directives (Christensen et al., 2021; Jackson et al., 2020), do not state causality but identify positive correlations between such requirements and sustainability activities or performance. First, a literature review by Christensen et al. (2021) summarises several studies on various mandatory sustainability reporting requirements, which all find evidence for improvement in sustainability performance. For instance, they find that specific reporting requirements in China (Chen et al., 2018), the U.S. (Tomar, 2021) and the U.K. (Downar et al., 2021) are associated with reduced emissions across affected companies. Additionally, Jackson et al. (2020) find an increase in the adoption of social activities between 2002 and 2014 among companies in France, Denmark and the UK, early adopters of sustainability reporting regulations.

Moreover, a recurring finding is that real effects tend to be strongest in companies with low levels of sustainability engagement prior to regulation (Antonini & Gomez-Conde, 2024; Christensen et al., 2021; Cuomo et al., 2024; Fiechter et al., 2022; Jackson et al., 2020).

Lastly, the two studies on voluntary reporting also find positive associations between sustainability reporting and organisational changes (Lozano et al., 2016; Traxler et al., 2020). A literature review by Traxler et al. (2020) explores the existing research on the relationship between voluntary sustainability reporting and management control systems. In total, they identify studies suggesting that sustainability reporting has a positive influence on all five elements of Malmi and Brown's MCS framework. Furthermore, a survey by Lozano et al. (2016) suggests that publishing sustainability reports drives sustainability changes in companies, including changes in data and indicators, strategy and organisational change.

4.4 Development of the research question

Based on the Friedman Doctrine, we have seen that companies would have little incentive to report voluntarily, underscoring the need for mandatory reporting requirements. Furthermore, mandatory external reporting may encourage companies to engage in activities and modify their behaviour in ways they might not have considered otherwise. However, newer theories suggest a broader sense of corporate responsibility as a driver for these activities, which may

also explain the extent of voluntary reporting. Therefore, it is particularly intriguing to investigate whether mandatory sustainability reporting requirements serve as an influence on company behaviour.

While existing literature indicates a positive link between mandatory sustainability reporting and corporate behaviour, the limited number of studies attempting to identify a causal relationship reveals mixed findings. Consequently, there appears to be a gap in the literature whether a causal relationship exists. Therefore, it would be particularly interesting to understand whether the EU requirements on sustainability reporting actually influence the management control systems in large companies. Drawing on prior findings and the assumption that real effects are more likely to follow from mandatory than voluntary disclosures (Christensen et al., 2021), we expect sustainability reporting requirements to play a role.

The objective of the CSRD goes beyond simply ensuring sufficient disclosure. While there is a compliance element, it also seeks to drive improvements in corporate behaviour. The disclosed information should help companies better manage their internal practices, while increased transparency may pressure them to take action and implement changes. The increased responsibility of the board may also lead to greater management focus on sustainability-related activities. Antonini and Gomez-Conde (2024) emphasise the need for further research to investigate the impact of this new directive. As the CSRD replaces the NFRD with more comprehensive sustainability reporting requirements, it is particularly intriguing to examine whether its objectives are effectively realised.

Since the first reports will not be published until 2025, new studies must be limited to examining effects during the transition period. However, Fiechter et al. (2022) found that companies responded to the NFRD by increasing their CSR activities even before it came into force. Thus, exploring the early effects of the CSRD is still considered relevant.

Traxler et al. (2020) call for more research investigating the effect of sustainability reporting on different elements of management control systems. For instance, they are interested in whether indicators from the sustainability reporting are included in bonus systems, whether they are used for planning, goal setting, or monitoring, and how the sustainability reporting influences corporate structures and internal communication. This focus is also supported by a

special issue from the British Accounting Review (2023), suggesting that research could explore how recent developments in regulations impact companies' perspectives on management control systems.

Based on these considerations, the aim of our research is to investigate whether large companies in Europe which are subject to the EU directives have changed their management control systems due to the new mandatory CSRD. If so, we seek to explore how. Hence, our research question is:

Has mandatory reporting under the CSRD influenced the management control systems in large companies, and if so, how?

5. Research methodology

Chapter 5 provides a detailed explanation of our methodological choices for addressing the research question “*Has mandatory reporting under the CSRD influenced the management control systems in large companies, and if so, how?*”. The chapter is divided into eight sections. Section 5.1 introduces our chosen research philosophy, followed by our research approach in Section 5.2. In Section 5.3, we outline the aspects of our research design, including the research purpose, research method, research strategy, and time horizon, in addition to present the study object. Section 5.4 describes our data collection methods, while Section 5.5 elaborates on our data analysis process and the challenges that occurred. Next, Section 5.6 discusses the research quality of our data, addressing potential issues related to validity and reliability. Section 5.7 presents ethical considerations for our study. Finally, Section 5.8 summarises our methodological choices.

5.1 Research philosophy

Research philosophy is defined as “a system of beliefs and assumptions about the development of knowledge” (Saunders et al., 2023, p. 131). Based on a set of assumptions, research philosophy establishes the worldview within which the research is conducted (Saunders et al., 2023). It forms the understanding of the research questions and the selected methods, and guides the interpretation of the findings (Crotty, 1998). Consequently, a well-considered approach to the research philosophy is essential.

The coexistence of multiple research philosophies highlights the various perspectives and approaches researchers can adopt to generate knowledge. Saunders et al. (2023) categorise business and management research philosophies on a multidimensional continuum, with objectivism and subjectivism as opposites. Objectivism focuses on the assumptions of the natural sciences, claiming that the social reality we study exists independently of people. In contrast, subjectivism is based on assumptions from the arts and humanities, building on that social reality is constructed from individuals' perceptions and actions. As a result, Saunders et al. (2023) identify five major philosophies in business and management research: positivism, critical realism, interpretivism, postmodernism and pragmatism (Saunders et al., 2023).

Our research philosophy positions between the objective and the subjective, which is compatible with a pragmatic approach. According to Lukka & Modell (2010), pragmatism is based on an interplay between "the objective world" and our perception of it. Knowledge only gains meaning when it's applied by people in their everyday lives. While pragmatists acknowledge that there may exist multiple truths, only arguments that can be justified through human communication are considered valid. Based on this, we conclude that a pragmatic research philosophy is the most suitable approach for our study (Lukka & Modell, 2010).

5.2 Research approach

Research approach refers to how a researcher approaches theory development (Saunders et al., 2023). Three approaches are identified, depending on whether the research question involves theory testing, theory building, or a combination of both (Saunders et al., 2023). The deductive approach seeks to explain relationships between concepts and variables by testing hypotheses grounded in theory through the collection of quantitative data (Saunders et al., 2023). The inductive approach begins a qualitative data collection to explore a phenomenon, and develop a theory based on the data analysis (Saunders et al., 2023). The abductive approach gathers detailed, rich data, which enables the researcher to explore a phenomenon, identify themes and patterns, and integrate these into a conceptual framework to develop a theory (Saunders et al., 2023). This theory is then tested using both existing and new data. Consequently, the theory development is based on all available empirical and theoretical knowledge (Lukka & Modell, 2010).

Whether the research approach is deductive, inductive, or abductive, depends on the emphasis of the research, the nature of the research topic and the research philosophy (Saunders et al., 2023). In our thesis, we explore the concept of the CSRD and whether sustainability reporting under this directive influences management control systems. Although there is existing literature on sustainability reporting and its implications on corporate behaviour, our literature review shows that it remains a relatively new topic where in-depth studies on a single organisation are less common. In such cases, Saunders et al. (2023) suggest an abductive approach, as it enables to modify an existing theory. Furthermore, "a well-developed abductive approach is likely to be underpinned by pragmatism" (Saunders et al., 2023, p. 159). For these reasons, we consider an abductive research approach to be the most appropriate for our study.

A potential weakness of abductive reasoning is the logical error of "affirming the consequent". This can make it challenging to evaluate the explanatory value of different theoretical ideas. Assigning causality to a specific mechanism based on an observation does not ensure that the underlying abductive reasoning is always accurate. In our study, this could imply assuming causality between the sustainability reporting under CSRD and its environmental MCS simply because both are present. We addressed this by treating abduction as an ongoing process. We remained open to alternative explanations as we navigated between theory and empirical data, incorporating new insights along the way (Lukka & Modell, 2010).

5.3 Research design

Research design is the overall plan for the research project, outlining how the researcher will approach to answer the research question (Saunders et al., 2023). It consists of four key elements: research purpose, research method, research strategy, and time horizon. In our study, the key to these choices is to create a design that aligns with the pragmatic research philosophy and the abductive research approach. In this section, we justify the elements in our research design, presented in Subsection 5.3.1 to 5.3.4. Lastly, we present the study object in Subsection 5.3.5.

5.3.1 Research purpose

The *research purpose* can be exploratory, descriptive, explanatory, evaluative, or a combination of these (Saunders et al., 2023). As our literature review shows, existing research on the effects of sustainability reporting on corporate behaviour is primarily focused on the NFRD, mandatory reporting beyond the EU directives and voluntary reporting. Consequently, the CSRD remains largely unexplored. Previously, we have seen that there appears to be a gap in the literature whether a causal relationship between mandatory sustainability reporting and corporate behaviour exists. Therefore, our study aims to explore the inner workings of companies and clarify whether a positive relationship exists. This aligns with an exploratory research purpose, which seeks to investigate and clarify the understanding of an issue, problem, or phenomenon—in this case, the CSRD (Saunders et al., 2023).

Exploratory research is flexible and adaptable, allowing for changes in direction as new data and insights emerge (Saunders et al., 2023). It typically starts with a broad focus that becomes more refined as the research evolves. This was true for our study as well. Initially, we conducted two interviews aiming to obtain a general overview of sustainability within the company. After reviewing our data, we focused on the most compelling topics, including impacts of the CSRD, driving forces behind sustainability implementation, sustainability governance, internal reporting on targets and actions, bonus system, as well as internal communication and tensions. Finally, we limited our focus on findings related to impacts of the CSRD and accordingly refined our research question. The process of shifting between theory and data collection, integrating new insights along the way and refining our focus make exploratory research a natural choice for our abductive approach.

5.3.2 Research method

Research methods can be categorised into quantitative, qualitative, and mixed methods. According to Saunders et al. (2023), quantitative research involves data collection and analysis techniques that generate or use numerical data, whereas qualitative research focus on non-numerical data. A mixed methods design combines both quantitative and qualitative approaches in the same research project. The research design may include a mono-method, multi-method, or mixed-methods design, depending on the number and combination of methods used (Saunders et al., 2023).

Based on our literature review, there appears to be a lack of in-depth qualitative studies examining the effects of mandatory sustainability reporting under the CSRD on management control systems. To our knowledge, prior research is primarily quantitative, often relying on large databases such as the Refinitiv Eikon Database (e.g. Antonini & Gomez-Conde, 2024; Cuomo et al., 2024; de Villiers et al., 2024; Fiechter et al., 2022). Within the scope of research on mandatory sustainability reporting, we identified only two studies supported by qualitative methods (Antonini & Gomez-Conde, 2024; Aureli et al., 2020), both of which use semi-structured interviews.

By conducting an in-depth qualitative study, we aim to collect more detailed insights than what can typically be achieved through quantitative methods relying on database proxies. Antonini & Gomez-Conde (2024, p. 6), highlight this limitation, stating that “one of the

challenges of using items from public archival databases is the extent to which they capture the “real” internal management control system”. Similarly, Berg et al. (2022) critique the divergence and thereby the reliability of ESG databases. Antonini & Gomez-Conde (2024) also explicitly suggest that future research could collect new qualitative evidence through interviews. For these reasons, a single, qualitative method is considered both appropriate and relevant, allowing us a better understanding of whether a causal relationship exists between mandatory sustainability reporting and MCS.

5.3.3 Research strategy

Research strategy is the “general plan of how the researcher will go about answering the research question” (Saunders et al., 2023, p. 832). Qualitative research includes a variety of strategies, such as ethnography, grounded theory, narrative inquiry, and case studies. In our thesis, we seek to explore whether mandatory sustainability reporting under the CSRD impacts management control systems, and if so, how (Saunders et al., 2023). To address this, we have chosen to conduct a case study.

A *case study* is defined as an “in-depth investigation of a topic or phenomenon within its real-life context” (Yin, 2018). Conducting a case study generates rich insights into the phenomenon through intensive examination, making it an ideal strategy for our research by providing rich empirical descriptions (Saunders et al., 2023). Furthermore, case studies can be designed to identify what is happening, explore why it happens, and understand the implications for action and outcomes (Saunders et al., 2023). This is particularly relevant to our study, as the CSRD involves comprehensive reporting requirements that may impact corporate behaviour. By conducting a case study, we aim to explore whether and how companies are affected by such complex requirements in practice.

Yin (2018) distinguishes between single and multiple case studies. A single case study is typically used when the case is critical, extreme or unique (Saunders et al., 2023). In contrast, a multiple case study involves examining multiple cases to determine if findings can be replicated across them (Saunders et al., 2023). As previously mentioned, existing studies are primarily quantitative, thereby focusing on multiple companies to uncover robust replications. In our study, we rather seek to gain in-depth understanding of our case, which is more

beneficial when narrowing our focus. Consequently, a single case study is chosen for our study.

To conduct a single case study, the case must align with the criteria of being critical, extreme, or unique. Our study object is a large multinational company in the energy industry, as described in detail in Subsection 5.3.5. The energy industry is facing a major transformation in response to the past decade's heightened focus on sustainability, making energy companies particularly crucial in the achievement on net-zero emissions by 2050. Furthermore, we found only a few studies within the scope of sustainability reporting research that conduct case studies of companies (Aureli et al., 2020; Herremans and Nazari, 2016; Kerr et al., 2015). Lastly, few researchers gain access to the inner workings of companies, particularly of the level of top management. For these reasons, our study may be considered a unique example within its field, making it well-suited to a single case study approach.

As previously presented, the CSRD include requirements on three topical standards: environmental, social and governance. In our case study, we narrow the focus to include only the environmental topical standard, and more specifically emissions and net-zero goals. This decision is based on four reasons. First, environmental standards are particularly relevant for energy companies, as oil and gas constitute a significant part of their business, making them major contributors to emissions. Thus, the environmental aspect of sustainability and the companies' emissions are the most critical for stakeholders. Second, the British Accounting Review (2023) calls for further research on net-zero. In our attempt on contributing to this literature, the emissions and net-zero goals are the most relevant. Third, the Paris Agreement and the European Green Deal explicitly focus on climate changes and net-zero ambitions. Last, a focused approach is beneficial when conducting an in-depth study. By excluding social and governance matters, we are able to deepen our understanding of environmental issues within the study object. Consequently, these reasons make it natural to limit the scope of the study to include only the environmental topic standards and focus on emissions and net-zero.

Ultimately, we have chosen a *holistic* case study approach, focusing on the organisation as a whole rather than on individual sub-units (Saunders et al., 2023). Our research includes interviewing participants from various business areas, departments, and divisions within the company. Rather than aiming for comparisons between sub-units, our goal is to gain a

comprehensive understanding of the potential impact of mandatory sustainability reporting under the CSRD across the organisation as a whole.

5.3.4 Time horizon

The final element of the research design is the *time horizon*, which may be either cross-sectional or longitudinal (Saunders et al., 2023). A cross-sectional study examines a specific phenomenon at a single point in time, whereas a longitudinal study observes changes and developments over an extended period (Saunders et al., 2023). The CSRD and its extensive reporting requirements came into effect during the time of writing. Consequently, it's only possible to explore the effects during the transition period, making a longitudinal study unfeasible. Consequently, we conduct a cross-sectional study, aiming to explore the current impacts of the CSRD.

5.3.5 The study object

The study object in our thesis is a large multinational energy company, hereafter referred to as “Energy ASA”. Energy ASA is an ideal study object due to its prominent role in the energy sector. As a major player in the oil and gas industry, they make a substantial contribution to emissions, requiring the company to address increasing demands for net-zero targets and sustainability reporting. Their overall strategy consists of three main components, with one of them being low emissions. As part of this strategy, they seek to be a leader in the energy transition and has set an objective to achieve net-zero greenhouse gas emissions by 2050. To deliver on this ambition, they have developed an energy transition plan with specific targets and related actions, which are updated with progress.

Energy ASA was previously subject to the NFRD and will fall under the scope of the CSRD starting from the financial year 2024. For the financial years 2022 and 2023, the company has issued integrated annual reports, including both the financial and sustainability reporting in one document. Prior to that, sustainability information was published in a separate report. According to publicly available information, the company has already started to prepare for compliance with the CSRD requirements. For example, they claim the format of the integrated report as being aligned with the CSRD, and the double materiality assessment to be inspired by the approach outlined in the ESRS. In other words, the recent annual reports seem to be

informed by the new EU regulations. Thus, the potential effects of the CSRD could be more apparent in this company.

As a large, global energy company, we expect Energy ASA to have the resources required to integrate sustainability practices into their business, in accordance with the purpose of the CSRD, and thereby reduce their negative impact on the environment. Moreover, the company's energy transition plan demonstrates a clear commitment to sustainability and their recent annual reports already seem to be informed by the CSRD. Therefore, Energy ASA is a compelling choice for our study.

5.4 Data collection

Data collection for our study was conducted in collaboration with our research team, including our supervisor and two American researchers. We gained access to the study object through a collaborative research project between Energy ASA and the Norwegian School of Economics. Initially, we arranged a meeting with our contact person in the company, who assisted with scheduling appointments to ensure a smooth data collection process.

Saunders et al. (2023) categorise data as either *primary data* or *secondary data*. Primary data is defined as new data gathered specifically for the research project, whereas secondary data refers to data originally collected for a different purpose (Saunders et al., 2023). In Section 5.4.1, we present our methods for collecting primary data, and in Section 5.4.2, we discuss our use of secondary data.

5.4.1 Primary data

There are several methods for data collection in a study, including experiments, surveys and interviews. Although each method has its advantages, it is essential to choose one that aligns with the purpose of the research (Saunders et al., 2023). Our research aims to explore whether mandatory environmental reporting under the CSRD has influenced management control systems, and if so, how. Given that the impacts may involve assessments influenced by one's role in the company, we aim to gather detailed insights during our data collection, which also enables a better understanding of whether causality between mandatory sustainability

reporting and MCS exists. Therefore, collecting primary data through interviews is the most appropriate method in our study.

Interviews can be conducted using either a structured or a semi-structured approach. Structured interviews are standardised, using a predetermined set of identical questions to collect comparable data from each participant. Semi-structured interviews provide a more flexible structure that allows for an open and thematic exploration. In semi-structured interviews, the interviewer can adjust the order of questions and introduce new ones as needed, guided by a list of pre-determined themes. It also enables for elaborations, encouraging interviewees to expand on their responses. In contrast to structured interviews, the semi-structured approach thus allows for in-depth exploration by enabling follow-up questions when interesting responses arise. This is crucial in our study. Within the scope of research on mandatory sustainability reporting, we identified only two studies using semi-structured interviews (Antonini & Gomez-Conde, 2024; Aureli et al., 2020). For these reasons, semi-structured interviews are chosen for our research (Saunders et al., 2023).

To prepare for the interviews, our research team created three interview guides, which are detailed in appendix A, B and C. The first interview guide was created with overarching questions for the two initial interviews. Based on interesting findings, a revised version was then created. Furthermore, we developed a dedicated guide for the interview with the Vice President for External Reporting, with a specific emphasis on sustainability reporting, providing a more detailed approach. The interviews were multi-purpose, meaning that the interviews were conducted as part of a research project for various purposes. This is also reflected in the interview guides, including several themes. Therefore, the questions that are relevant for our study are marked in the interview guides. The interview guides served as a valuable tool to structure the interviews, while providing the flexibility to adjust the questions according to the interviewees' role within the company.

As discussed in Section 5.3.3, our research strategy primarily involves conducting a holistic case study. Accordingly, we are interested in if and how the CSRD affects the organisation as a whole. To gain a comprehensive view of the organisation, we selected interviewees across top, upper, and middle management levels, guided by our contact person within the company. Top management at Energy ASA consists of the company's senior leaders, which are chosen

for their knowledge of the company's priorities, overall performance, and how sustainability fits into the strategy. Next, the upper middle management in our research consists of functional heads and department leaders. These provide in-depth insight of how sustainability is integrated into their work and whether the CSRD has affected their functions. Lastly, we included the middle management, consisting of managers overseeing daily operations within specific departments or projects. This group includes employees with experience working in different countries and employees within the International Oil and Gas Production Business Area. These were chosen in order to incorporate perspectives from a deeper level within the company while also reflecting its international scope.

The interviewees within the Safety and Sustainability Function, the Vice President for External Reporting, and the Performance Management within the CFO Function are especially important in our research, as they provide key insights essential for answering our research question. The Safety & Sustainability Function are essential to our understanding of Energy ASA's approach in the energy transition. The Vice President for External Reporting is crucial in the context of the CSRD. Lastly, the Performance Management within the CFO Function is important for understanding the management control systems within the company.

The number of interviewees is also well-considered. We have chosen to interview 16 employees at Energy ASA to ensure sufficient breadth and depth in our data collection. By including a diverse range of interviewees from various functional areas, strategic levels, and geographic locations within the company, we were able to compare responses across different perspectives. This approach strengthens the validity of our findings and ensures that the answers reflect a holistic understanding of the potential impact of the CSRD. Additionally, the number of interviewees was selected to ensure that we reached saturation, ensuring that our data collection is sufficiently comprehensive. Together, the 16 interviewees offer in-depth knowledge of Energy ASA's management control systems across various business areas, departments, and divisions. The interviewees are presented in **Feil! Fant ikke referansebildet.**, organised by the order in which the interviews were conducted.

Table 1: Descriptive overview of interviewees

Participant No.	Title	Functional or Business Area	Years in Company	Years in Current Position	Interview length (in hrs:min:sec)
Participant 1	Senior Vice President for Climate and Sustainability	Safety & Sustainability	13	4	0:42:18
Participant 2	Vice President for Performance Management	CFO	28	2	1:18:53
Participant 3	Vice President, Head of Investment Quality Assurance	CFO	19	4	0:28:50
Participant 4	Vice President for External Reporting	CFO	10	4	0:52:02
Participant 5	Executive Vice President and CFO*	CFO	29	2	0:43:32
Participant 6	Performance Manager	Technology and R&D	14	1	0:38:15
Participant 7	Former Head of Corporate Risk	CFO	16	4	0:52:28
Participant 8	New Head of Corporate Risk/Former Controller	CFO	22	0/4	0:52:28
Participant 9	Chairman of the Board	Board of Directors	8	8	0:50:42
Participant 10	Executive Vice President People & Organisation*	Human Resources	16	3	0:50:42
Participant 11	Head of Performance Management	CFO	14	3	0:42:53
Participant 12	Performance Manager	International Oil and Gas Production	32	2	0:38:10
Participant 13	Controller	International Oil and Gas Production	13	3	1:06:13
Participant 14	Head of Performance Management and Portfolio Management	Renewable Energy	23	2	0:43:27
Participant 15	Performance Manager	Norwegian Oil- and Gas Production	19	2	0:41:49
Participant 16	Executive Vice President*	Safety & Sustainability	25	4	0:42:32

*Members of the CEO's corporate executive committee.

Finally, the execution of the interviews was carefully planned. All interviews were conducted online via Microsoft Teams. The majority of the interviews were conducted on a one-to-one basis, except of three group interviews. One interview was conducted with three interviewers, while two interviews involved one interviewer and two participants. In total, we conducted 14 interviews with 16 participants during September and October 2024. As the interviews were multi-purpose, only the parts of the interviews relevant to our research question are selected for our study.

5.4.2 Secondary data

Secondary data provides access to a far broader range of information than could be collected independently (Saunders et al., 2023). This included Energy ASA's web site, annual reports, energy transition reports, public communications, climate policy statements, and internal presentations. The documents informed our interview questions and offered valuable insights, allowing us to follow up on interviewees' comments and further deepen our understanding of the object.

5.5 Data analysis

Saunders et al. (2023) provide a comprehensive overview of various techniques, methods, approaches, and processes for qualitative data analysis. Most analytical techniques involve coding and categorising data by themes to build structures that address the research question (Saunders et al., 2023). In our research, we consider thematic analysis and data display as appropriate methods for identifying patterns within our dataset.

Prior to the analysis, we prepared the data for examination. We converted the data to text by recording the interviews, automatically transcribing them, and then cleaning the transcription in accordance with the approach described by Saunders et al. (2023). To ensure consistency in the data cleaning process, we developed an overview of the changes made, serving as a guide throughout the transcription process. The data cleaning guide is detailed in appendix D. This thorough preparation established a strong foundation for further analysis.

To analyse our large amounts of non-standardised data, we commenced with fragmenting the data by coding, as described by Saunders et al. (2023). We conducted the coding manually, marking data units with their corresponding themes in the margins of the transcript. This enabled us to reorganise the data into 16 initial categories such as “driving forces for implementing the net-zero strategy”, “involvement in the net-zero strategy”, “the process of setting targets and ambitions”, “internal tensions” and “the impact of the new EU requirements”. Based on the established categories, we prepared transcript summaries throughout the interview process. The categories were integrated into the summaries using subheadings, under which we compiled and summarised the interviewees' responses to each

theme. In this way, the transcript summaries served as a valuable tool to gain an overview of our findings. Based on these, we chose to narrow our focus on the category “the impact of the new EU requirements” and consequently refined our research question to include the CSRD.

Next, we used the article by Malmi and Brown (2008) as a foundation for further analysis. Their framework offers a structured perspective on the management control systems within a company, serving as an excellent starting point to organise and analyse our data further. Their definition of MCS covers all types of activities used to direct employee efforts and behaviour. This broad definition is considered appropriate for our purpose, as we are interested in whether the regulation has had any impact on companies’ environmental activities. This approach is mainly inspired by the study of Antonini and Gomez-Conde (2024) who examined the impacts of the NFRD on EMCS, as well as Traxler et al. (2020), who used Malmi and Brown’s MCS framework to structure their literature view on research linking sustainability reporting and management control systems.

Our empirical study is based on multi-purpose interviews, with questions not initially derived from Malmi and Brown’s (2008) conceptual framework. Therefore, to help structure the findings relevant to our research question, we categorised the responses related to the EU directive according to the elements of this analytical framework.

We used Microsoft Excel as a tool to display our findings in a matrix, which is described as an appropriate display of data by Miles et al. (2019). The interviewees were organised into rows, while the columns were based on the five elements of the MCS framework: administrative controls, planning controls, cybernetic controls, reward and compensation controls and cultural controls. Each control was represented as a column, except for the planning controls, which were divided into long-term planning and action planning. Next, we reviewed the transcripts individually to extract quotes relevant to the effects of the CSRD on MCS and incorporated them into the matrix. The data display allowed us to gain an overview of which interviewees were most relevant to each of the controls, while also allowing for a comparison of the interviewees’ perspectives on whether they perceive the MCS at Energy ASA as being influenced by the CSRD.

To select quotes to be presented in the findings, we commenced by systematically focusing on the columns in the matrix one by one. For each column, we reviewed the findings and

organised them into a logical structure in a separate Microsoft Word Document sheet. To ensure a correct representation of our findings, we included quotes from all the interviewees represented in the column, however with some adaptations. The quotes of the key interviewees for each control were prioritised to provide an overview of the controls, with quotes from other interviewees serving as supplementary insights. Thus, we gathered all diverging quotes to facilitate comparison.

During the data analysis, we encountered several challenges. A challenge that was evident for us was categorising the quotes in the matrix. Although we asked the interviewees the same questions, their responses varied significantly due to the open-ended nature of the questions. As a result, we needed to focus on the content of the answers during the categorisation process, which, in some instances, required dividing quotations across multiple controls. Consequently, it was challenging to accurately determine the number of interviewees who addressed each question. Furthermore, all interviewees provided us in-depth answers. As we included quotes from all relevant interviewees, we had to focus the quotes on what was specifically relevant to answering our research question, omitting unnecessary details. In cases where the interviewee's responses were too unclear to comprehend, we had to omit them. Lastly, we found it challenging to conclude on our findings when conflicting opinions occurred. While we could have emphasised the statements of key interviewees, we chose to prioritise opinions shared by the majority of interviewees, as we aim for our empirical findings to reflect Energy ASA as a whole.

To present our findings, we structure them thematically based on Malmi and Browns Framework in Chapter 6. Although the thematic structure involves some interpretation, we aim to present them objectively by directly quoting the interviewees. In Chapter 7, we compare our empirical findings on the impacts of the CSRD on the MCS at Energy ASA with relevant theories and existing literature.

5.6 Research quality

When assessing the *quality* of research, reliability and validity are central to the evaluation (Saunders et al., 2023). Being aware of threats to both is essential for ensuring good-quality research. Our considerations on these matters are outlined in Subsections 5.6.1 and 5.6.2.

5.6.1 Reliability

Reliability refers to “the extent a data collection procedure yields consistent findings” (Saunders et al., 2023, p. 215). It can be further divided into internal and external reliability. Internal reliability focuses on maintaining consistency throughout the research project, while external reliability concerns whether the data collection and analysis would produce consistent results if repeated or replicated by another researcher (Saunders et al., 2023). Saunders et al. (2023) identify four threats to reliability that may reduce research quality: participant error, participant bias, researcher error, and researcher bias.

Participant error is any factor that negatively influences the way a participant answers or behaves (Saunders et al., 2023). Online interviews can be a contributing factor, as technical issues may arise, affecting the interviewee’s patience and focus. However, online meetings have become increasingly common in the 2020s, particularly among management in large, multinational companies. To mitigate potential issues, we ensured the chosen platform met the interviewee’s needs by holding two introductory meetings in Microsoft Teams. No technical problems were encountered during the interview process. In fact, video-based interviews provided an advantage by allowing interviewees to choose a location that enabled them to engage in the interview in the most comfortable and effective way.

The amount of time required for an interview may result in unwillingness to take part (Saunders et al., 2023). Therefore, we informed the interviewees that the interview would last no longer than 45 minutes, despite Saunders et al. (2023) suggesting 1-2 hours. The interviews proved to be highly informative. To ensure time efficiency, we provided the interviewees with an information sheet in advance (see appendix E). The interviewees appeared focused rather than stressed and were generous with their time when the interviews exceeded 45 minutes. Two interviewees accelerated an upcoming meeting and only one interviewee had to close. Nevertheless, all themes in the interview guide were included. Thus, despite the time limitation, the interviews provided us with valuable insights.

Participant bias refers to any factor inducing a false response from the interviewee (Saunders et al., 2023). For instance, this can arise from the interviewees desire to provide responses that align with what they believe the company expects. Furthermore, interviewees might downplay the impact of the CSRD on the company's behaviour in favour of their own strategy. To reduce

this risk, we reminded the interviewees of the right to anonymity and confidentiality and that the participation was voluntary, both in the informant sheet and in the interviews. Additionally, the interviewer clearly emphasised that we were seeking their own opinions, by commencing questions with “in your opinion”.

However, there were two interviews in which the risk of participation bias was evident to us. One interviewee was careful not to act as an opinion maker in order to maintain her objective role within the company. Another interviewee appeared to be referring to notes during the interview, which could indicate either thorough preparation, a desire to provide "textbook answers" or just a wandering glance. Regardless, our impression was that the interviewees had not discussed the topic beforehand. Another important point is that the collaborative research project with Energy ASA may have influenced the expectation that employees should participate, potentially affecting the interviewees' sense of voluntary involvement.

Lastly, audio recordings and group interviews may introduce additional sources of participant bias. There is a risk that interviewees may alter their responses knowing they are being recorded or observed by other interviewees. However, in the group interviews, one interviewee primarily led the responses, while the others supplemented them. Additionally, the online format allowed interviewees to share their screens and present supporting documents to back up their statements.

Although it is unclear whether the concerns presented above have biased our findings, they do not appear to be a significant issue in our study. With the exception of one interview, we found that the respondents understood the importance of honesty and spoke openly.

Researcher error is “any factor altering the researcher’s interpretation” (Saunders et al., 2023, p. 216). To minimise the risk of errors, we developed an interview guide through collaborative meetings with the entire research team. Furthermore, Finn Kinserdal has research experience and is well connected with both the company and several individuals. By choosing him to conduct the majority of the interviews one-to-one, we ensured a professional and comfortable environment for the interviewees. The interviews were conducted in English, rather than the interviewees' native language. However, English is the official communication language at Energy ASA, and all interviewees were fluent in English. Hence, we consider the likelihood of research error affecting our conclusions to be low.

Finally, *research bias* refers to any factor that introduces bias in the recording or interpretation of interviewees' responses. We believe that research bias is minimal in our study, as all team members reviewed the video recordings, and we conducted a thorough transcription to ensure an accurate representation of the interviews. Furthermore, our findings are reported fully and accurately.

5.6.2 Validity

Validity refers to the extent to which data collection procedures measure what they are intended to measure, ensuring that the research findings truly reflect what they claim to address (Saunders et al., 2023). Saunders et al. (2023) describes two types of validity: internal validity and external validity.

Internal validity refers to the extent to which the findings can be attributed to the intervention being studied, rather than to flaws in the research design. Semi-structured interviews can achieve a high level of validity when conducted carefully, using clarifying questions, probing for deeper meanings, and exploring responses from various angles or perspectives. Thus, adapting internal validity to qualitative research is generally not problematic, as the in-depth nature of qualitative methods ensures findings are grounded in rich data (Saunders et al., 2023).

Our findings are based on 16 carefully selected interviewees with in-depth knowledge of a large, multinational company. We strived to maintain an objective approach to the research by avoiding biased or leading questions and asking the same questions to all interviewees. We also strengthened the credibility of our findings by verifying the responses, with the interviewer asking interviewees to confirm if we had understood them correctly.

External validity is the extent to which the findings of a particular study can be generalised to other relevant contexts (Saunders et al., 2023). A common issue raised regarding the generalisability of qualitative research is its use of small samples (Saunders et al., 2023). Gioia et al. (2012) argue that a single case study can be generalised, provided the case generates concepts or principles that are clearly relevant to another domain. They emphasise that the goal is to generalise to theory.

In this study, we have focused on single case study, aiming to explore whether reporting under CSRSD has influenced the MCS at Energy ASA. We aim to uncover explanations that are firmly grounded in the context of a large multinational energy company. Chapter 7 will connect our research to existing theory, demonstrating that our study holds broader theoretical significance beyond the case itself. An important final point is that our description of the methodological choices allows others to replicate or conduct similar studies on companies with different characteristics. In this way, our study may contribute to practical insights, support replication and advance the development of theory within its field.

5.7 Research ethics

Research ethics are the standards for researcher behaviour, guiding actions that respect the rights of the study object and all those affected by the study. In this study, ethical conduct is particularly important, as our research involves human participants. This requires assessing each stage of the research from an ethical perspective and maintaining integrity throughout the process and beyond (Saunders et al., 2023). The following paragraphs outline our specific ethical considerations.

In accordance with the Norwegian School of Economics' ethical guidelines (NHH, n.d.), we registered our research project with Sikt, who assisted us in ensuring compliance with data protection legislation (Sikt, n.d.). Furthermore, we have entered into a research agreement with our study object, agreeing on our responsibilities, rights and confidentiality for conducting our thesis. These formalities lay a solid foundation for the ethical conduct of our research.

Prior to the interviews, our research team ensured that the interviewees were provided an information sheet, as detailed in appendix E. The information sheet provides details about the nature of the research, the requirements and implications of participation, the interviewee's rights, how data will be used and stored, and whom to contact with any concerns. Moreover, the information sheet informs that consent will be obtained verbally in the recorded interview. Consequently, we obtained the interviewees' consent at the start of each interview.

To fulfil our obligations, we stored the data with caution and accuracy. Access to the video recordings was limited to members of the research team, with confidential data accessible only

to team members located in Norway. Additionally, we ensured that the transcript contained no confidential or non-anonymous information. Names on interviewees, employees, positions, divisions, departments, business areas and competitors were replaced by codes, and confidential information was removed. Subsequently, any data with confidential content was securely stored with password protection separately from anonymised versions. Anonymity and confidentiality are also upheld also in our thesis. Lastly, all personal data and video recordings will be deleted at the end of the project, with only anonymised data being stored thereafter.

With this approach, we aimed to uphold the privacy of our research participants, guided by the ethical principles outlined by Saunders et al. (2023, p. 257): respect for others, avoidance of harm, voluntary nature of participation, informed consent, ensuring confidentiality and maintaining anonymity, responsibility in the analysis of data and reporting of findings, and compliance in the management and storage of data.

5.8 Summary of methodological choices

Table 2 provides a summary of the methodological choices in our research, based on the descriptions outlined in this chapter. All choices align with our pragmatic research philosophy and abductive approach and are therefore closely connected to our research question.

Table 2: Summary of methodological choices

Dimension	Methodological choice
Research philosophy	Pragmatic
Research approach	Abductive
Research purpose	Explorative
Research method	Mono, qualitative
Research strategy	Single case study
Time horizon	Cross-sectional
Data collection	Semi-structured interviews
Data analysis	Thematic

6. Empirical findings

In Chapter 6, we present our empirical findings to address whether mandatory reporting under the CSRD has influenced the management control systems at Energy ASA. All the interviewees are asked for their perception of whether the CSRD has impacted the company, and if so, in what ways. The findings are categorised into themes based on the five elements of Malmi & Brown's (2008) conceptual MCS framework. However, our primary data does not provide insights into whether the CSRD has influenced the cultural controls at Energy ASA. Therefore, this chapter focuses on findings related to the remaining controls. Section 6.1 explores the impacts of the CSRD on administrative controls, while Section 6.2 examines the effects on planning controls. Section 6.3 discusses the impacts on cybernetic controls, followed by Section 6.4, which addresses reward and compensation controls. Finally, Section 6.5 summarises our findings.

6.1 Administrative controls

As presented in Chapter 3, administrative controls are one of the five main elements in Malmi and Brown's (2008) analytical framework for MCS and are further divided into three components: governance structure, organisational structure, and policies and procedures.

With the expanded reporting scope under the new CSRD and the increased responsibility of the Board, we aim to investigate whether these changes have prompted the company to adjust its administrative controls. Of relevance, several interviewees are asked about their roles and responsibilities in the sustainability reporting process and the degree of internal collaboration across the company, following the introduction of the CSRD. Additionally, some interviewees are specifically asked whether they believe the Board's sign-off on the sustainability report has influenced their focus in any way. Our data analysis indicates that the findings primarily relate to governance structure, while some concern organisational structures. Accordingly, this section is structured as follows: in Subsection 6.1.1, we explore whether the CSRD has affected governance structures, whereas Subsection 6.1.2 presents our findings related to the impact on organisational structure.

6.1.1 Governance structure

In this section we aim to find out whether the CSRD has affected employees' roles and responsibilities in the sustainability reporting process. The interview with the Vice President for External Reporting at Energy ASA is particularly valuable in addressing this. He will be formally responsible for issuing a CSRD-compliant integrated report in 2025 and should therefore have a clear overview of the current roles, responsibilities and collaboration. Accordingly, we begin with his response. When the Vice President for External Reporting is asked about the process of creating the sustainability report, he responds by saying:

And that really changed now in connections with Corporate Sustainability Reporting Directive, and how that is incorporated into Norwegian law.

He then elaborates on the shift in roles and responsibilities following the introduction of the CSRD. He points out that the Sustainability Committee of the Board previously had the oversight role for the sustainability report, while the Safety and Sustainability Function was responsible for the actual preparation of the report. In comparison, the main responsibility is now shifted to the Board Audit Committee and the CFO Function. As part of the CFO Function, he further elaborates more specifically on the change in his responsibility:

As a starting point, the CFO organisation was not involved in that process other than, in order to deliver on some sustainability requirements to be part of the Board of Directors report, of course, we got the information from [the Safety and Sustainability Function] to include in the annual report. Now, since this change, the responsibility shifted over to the Board Audit Committee, that also means the CFO organisation have the overall responsibility to deliver a compliant reporting. So, that falls under me. So, suddenly I got a responsibility to make sure that the CFO now get a compliant report.

As the Board is now responsible for signing the integrated report, seven relevant interviewees are also asked whether they believe this has influenced the Board's focus. Four out of seven focus solely on the impact on the reporting process, with three out of four noting that the Board has become more involved, trying to understand more of the details.

First, the Vice President for External Reporting explains how they have tried to involve the Board in internal communications to ensure they can respond to their responsibilities, for

example by organising competence-building activities. However, he emphasises that these are intended as temporary measures for the transition period and that in the future, their role is expected to be similar to that of financial reporting. Similarly, the Chairman of the Board notes:

It's definitely been part of what they now prepare for. [...] So, in order to meet it, there has been these competence days, as they call it, to dig into things, to prepare for this. So, they're at least doing a wholehearted initiative to try to be ready.

The CFO also acknowledges the Board's increased eagerness to be involved and understand the details, but expresses concerns about a potential challenge with this change:

[...] So, it's creating a dynamic in the boardroom that we need to be conscious about because the board might start to act as an administration more than a board when it comes to these things, because they really need to understand the details, they want to be involved and all of that. So, there's a little bit of roles and responsibilities that might be disturbed if we're not conscious here.

On the other hand, the Performance Manager in the Norwegian Oil and Gas Production Business Area indicates that she has not observed any changes in the focus on details and accuracy in the reporting, responding: “*No, not yet*”.

Furthermore, three out of seven respondents focus mainly on whether the Board's emphasis on the net-zero strategy has changed. None of them believe it has altered their focus, instead highlighting that the Board at Energy ASA was already very engaged in the energy transition prior to the CSRD. The Executive Vice President of the Safety and Sustainability Function summarises this perspective:

No. This is a board that's very engaged and committed in the energy transition and the net-zero. So, I don't think the reporting as such has changed there.

The Head of Performance Management within the CFO Function shares a similar view:

[...] my view of the discussions we have with the board is that they are very interested and updated on the sustainability parameters as well. So, it's certainly not something that we will have to force their attention to.

Finally, the Head of Performance Management and Portfolio Management within the Renewable Energy Business Area notes:

No, I don't think. I think we are known as a quite, what can you say, a credible company. We have quite conservative in the ambitions that we put out. So, I think that the board signs them off, it's just another quality stamp on it. But I think it has been of quite good quality also before that.

Accordingly, she does not see any internal changes resulting from this shift in responsibility but suggests that the Board's sign-off might serve as a quality stamp externally.

Despite responsibilities shifting towards the CFO Function, the Safety and Sustainability Function still seems to play an important role in the preparation process. Regarding its roles and responsibilities, the Senior Vice President of the Safety and Sustainability Function notes:

Within my responsibility, it's a broad range of sustainability topics. [...] As a corporate unit, we are responsible for both policies and strategies related to this [...]. My team is responsible for, for example, the energy transition plan, [...] also the sustainability part of reporting. We do collaborate very closely with a lot of other parts of the company, but in particular, the corporate strategy unit and also the performance management and risk section and CFO. So, they are very close allies.

This is further confirmed in the interview with the Vice President for External Reporting, who explains:

I'm fully dependent on our sustainability organisation to deliver a lot of the content. So, we are really building on what has been done before.

He then gives examples of areas where the Safety and Sustainability Function is currently involved. Referring to the CSRD requirements, he mentions that they mainly do the gap analysis, especially on the impact side. They have the subject matter experts for the topical standards, making sure they deliver on the reporting requirements. They are also, in collaboration with the CEO, responsible for setting the ambitions and targets.

Later, he elaborates on how the tasks are divided between the CFO Function and the Safety and Sustainability Function, adding:

So, it's more oversight, being in those project team, making sure that we understand the results, review the results, where do we need the effort. But then, of course, [the Safety and Sustainability Function] based on a long history of practice, making sure we collect the data.

Furthermore, the Vice President for External Reporting notes that they are still in the process of updating governing documents regarding roles and responsibilities. He also addresses what he perceives as potential challenges with these changes:

[...] Because all our working requirements, functional requirements in the past stated that “OK, company X to deliver XYZ data”, that was in the [Safety and Sustainability Function] line. I cannot have it, for example, that [the Safety and Sustainability Function] said “we will not prioritise this area for the 2024 reporting”, if that is a key topic. That cannot be [the Safety and Sustainability Function]’s decision, since I’m responsible for delivering.

Despite this, he emphasises the strong internal collaboration between the CFO Function and the Safety and Sustainability Function, describing it as “*one of the key success factors*”, and concludes with the following:

But that has never been a problem, because we have a very good collaboration between the two functions, and that is a key.

To summarise, the roles and responsibilities for external sustainability reporting at Energy ASA have shifted with the implementation of the CSRD. The findings reveal that formal responsibility for the sustainability report has moved from the Board’s Sustainability Committee and the Safety and Sustainability Function to the Board Audit Committee and the CFO Function. This shift means that the main responsibility now lies with key individuals who possess decision-making authority. Despite this change, there seems to be close collaboration between the two functions, which the Vice President for External Reporting considers a key success factor. The CFO Function mainly holds an oversight role and to a large extent relies on the Safety and Sustainability Function to set ambitions and collect the necessary data, due to their experience on this.

Furthermore, the empirical findings suggest that the Board is now more involved in the process, as they are required to sign off on a much more comprehensive sustainability report. The Board is actively working to build their competencies and deepen their understanding of the details to ensure they fulfil their responsibilities. However, and more importantly, it does not appear to have changed the Board's focus on the net-zero strategy, noting that they were already very engaged in the energy transition prior to the CSRD. Thus, the impact appears to be limited to an increased focus on compliance with the new reporting requirements, rather than influencing their attention to specific sustainability activities.

6.1.2 Organisational structure

Organisational structure, in this context, refers to the organisation of employees beyond the formal responsibilities outlined in Subsection 6.1.1. Although the interviewees were not asked specifically whether the organisational structure has changed following the CSRD, the interviews still provide some insights.

First, there has apparently been a significant increase in the number of employees involved in the process of preparing the sustainability report. In particular, the Executive Vice President of the Human Resources Function states that the new external reporting requirements have implications for the composition of employees:

It's quite a burden in terms of the number of hours that you need to put in and so forth. So, you might see you need to move people out of other core areas to fulfil the requirements, which are increasing from year to year, we see that.

Furthermore, the broad company involvement in preparing the sustainability report becomes evident when the Vice President for External Reporting is asked about the double materiality assessment (DMA) process. He explains that Energy ASA has a dedicated project team for the DMA, in which he is actively involved:

I'm part of the team leading the process, agreeing on the steps, to make sure that our process is according to the rules. Then, it's mainly the sustainability part that is performing all the workshops with a subject matter experts [...] And also then the CFO take a little bit more role in the financial materiality, on that part, where also the corporate risk people are a key part in the assessment. [...] And on EVP level, both me

and [the Manager in the Safety and Sustainability Function] [...], and we are shortly also going into [...] the [C-suite], and in the end to the board committee or committees.

Among the other interviewees from the Safety and Sustainability Function and the CFO Function, only the former and new Head of Corporate Risk are explicitly asked about their involvement. The former Head of Corporate Risk confirms the Corporate Risk Department's involvement, explaining:

Yes, and this is one of the areas that's stepping up. [...] So yes, we are involved, but obviously it's a massive area, so we only cover the bits that relate to risk.

Furthermore, the five interviewees from the business areas are specifically asked about their involvement, with four out of five confirming that they are involved to some extent. However, the involvement appears to be limited to reporting specific numbers to people in the accounting line. The Controller in the International Oil and Gas Production Business Area is the one who provides the most detailed answer when asked whether he has been affected by the new EU requirements:

Now there is a very strict process when it comes to the annual report process. Every year we are expected to contribute more into that process. But by the time it reaches us to deliver information, the interpretation questions are, I believe, solved. We are just very specific "deliver this, deliver that". So, it's very task oriented rather than the complex discussion. [The Vice President for External Reporting] says [...] "Give me these numbers. Write a piece of text about your business. Write about the developments you have had in this space" and so forth. So, it's really that.

Despite the increased involvement across functions and business areas to ensure compliance with the EU's new demanding reporting requirements, the following statement from the Performance Manager in the Technology and R&D Business Area provides an interesting perspective on how the company as a whole is affected by the new regulation:

[...] it takes much time from those involved, but this is a large organisation, and the majority is not involved in this reporting.

Finally, aside from the project teams, the underlying organisational structures at Energy ASA regarding sustainability have, to our knowledge, remained largely unchanged during this transition period. Energy ASA has had a dedicated Safety and Sustainability Function for many years already. This function previously held primary responsibility for all sustainability matters, including the sustainability report, and continues to play a key role in setting ambitions and targets, as well as collecting the necessary data. The same applies to the Renewable Energy Business Area, focusing on renewable energy and low-carbon solutions, which was established way before the introduction of the CSRD.

Summing up, the empirical findings show that more employees are now involved in the sustainability reporting process. Dedicated project teams have been established at Energy ASA to ensure compliance with the new reporting requirements, for example in relation with the DMA process. Significant parts of both the CFO Function and the Safety and Sustainability Function are now involved, including the Corporate Risk Department, the CFO, subject matter experts in sustainability, as well as the C-suite and the Board. The business areas are also involved to some extent, mainly in reporting specific numbers. However, Energy ASA established a dedicated Safety and Sustainability Function and a Renewable Energy Business Area long before the introduction of the CSRD. Hence, apart from new project teams, the underlying organisational structures regarding sustainability appear to be largely unchanged.

6.2 Planning controls

As described in Chapter 3, planning controls include the process of setting goals and actions with the objective of steering the efforts and behaviour of employees in the desired direction (Malmi & Brown, 2008). As planning may have a major role in directing employee behaviour, these controls are particularly relevant in examining whether the purpose of the CSRD has materialised in practice. Malmi and Brown (2008) divide the planning controls into long-range planning and action planning. Accordingly, we have adopted this distinction in our analysis as well. In this section, we present our findings on the potential impacts of the CSRD on Energy ASA's long-range planning in Subsection 6.2.1 and the potential impacts on the action planning in Subsection 6.2.2.

6.2.1 Long-range planning

Energy ASA communicates a clear strategy. In 2022, the company established a goal to achieve net-zero emissions by 2050, resulting in a net-zero strategy. The energy transition plan outlines how they will evolve into a broad energy company to achieve this ambition. In the annual report, the company states that the social licence to operate and the ability to run a profitable business will be closely tied to how companies act on their net-zero ambitions, as policy and regulations shape energy markets. Furthermore, the new regulation by EU is not just viewed as a compliance requirement for companies, it is also intended to influence company behaviour by focusing on the sustainability information that matters to them. Ten interviewees are asked whether the CSRD has an impact on the strategy, long-term actions or the pace of the transition. These responses are used to examine whether the CSRD has influenced the long-range planning at Energy ASA.

The interviewees provide different perspectives on potential impacts of the new mandatory EU requirements, with two interviewees standing out. The Performance Manager in the Technology and R&D Business Area provides support for an impact on the strategy, by emphasising the link between performance and external reporting:

[...] we want to perform on what we are reporting on externally, of course, and when this is an important part of it, it has affected us.

Additionally, the new Head of Corporate Risk also acknowledges there might be an impact, but with a different perspective. She argues that it adds weight to advocate for what they believe is right, as it aligns with the interests of the stakeholders. However, sustainability has been high on the agenda at the top level for a long time. Since they are not starting from scratch, she states that the impact is relatively small and concludes with the following:

[...] now you've got a little bit of extra support to say we have to do this. So, it's a bit yes, but there is a lot in there that I would question as well.

However, eight out of ten interviewees have not observed any changes at Energy ASA's long-range planning. The Head of Performance Management and Portfolio Management within the Renewable Energy Business Area is positive to a change in strategy, as she personally has

argued for making changes in the KPIs due to the introducing of the CSRD. However, she has not observed any changes in the strategy today.

The Vice President for External Reporting possesses in-depth knowledge of the CSRD. Consequently, if the EU requirements were to affect the strategy, he would have a role in the process of shaping any changes. However, he finds it difficult to answer our question:

That's a little bit challenging, because I will say as a starting point, I don't think the reporting obligation should be the driver for change. I think the reporting, that is more "report on what you do", and it should not force companies to act if they didn't want to go in that direction in the first place. So, it's a little bit strange that they're using this directive and rules to really force companies to change.

Thus, he does not provide support for the CSRD's objective of driving changes in company behaviour. He concludes with the following:

[...] you have that drive and visibility of it. But for me, I don't see that it's the reporting that is impacting the strategy.

Although his conclusion is negative, he points out that the requirements do have a reinforcing impact on the strategy. He emphasises the importance of reporting in providing information about their performance on the net-zero strategy:

[...] you so clearly need to demonstrate how you are delivering on that strategy through the reporting. Of course, that put pressure on delivering on the strategy, and make sure also that your strategy is valid and are able to get there, because you're going to be held accountable for what you report. We also see through the reporting, at least what I've heard, and I've also participated in some meetings with investors or investor groups, of course, there is a lot of interest in "how are you going to deliver on the strategy", and they want to see that through reporting.

The response of the CFO supports the Vice President for External Reporting's statements. He elaborates on the emphasis placed by top management on delivering the company's strategy:

[...] it has not changed them, but it has clearly made us become even more granular, and even more specific on what are the priorities from the top management to deliver

on this. So, it has not changed our ambitions and games, but it drives us in a direction where we need to be even more clearer in what we do, and demonstrating that we are on the right track as such.

As established in the previous section, the responsibility for setting the ambitions and targets of the net-zero strategy lies with the Safety and Sustainability Function. Therefore, the opinions of the employees within this function are particularly relevant. The Senior Vice President of the Safety and Sustainability Function elaborates on whether the strategy is affected:

My honest answer would be no. I think we have embedded the net-zero pathway long before this regulation came, it might be different for other companies, and we have had very rigorous reporting, even external verification of a lot of it for many, many years. [...] You have to report exactly on the specific format requested. So, it is a lot of work. [...]. But I wouldn't say it's drastically new. We've built on what we have. It's extensive. But so far, I can't really see that it's driving strategy or performance.

When asking the Executive Vice President of the Safety and Sustainability Function, we achieve a similar response. She points out that the EU regulations have not affected the strategy of Energy ASA, however companies without an energy transition plan may respond differently:

[...] we have our energy transition plan whether we have to report or not. So, for us it's not helping to accelerate the energy transition, but it could be for other companies that don't have an energy transition plan. That by reporting they see that they need to do some more actions. So, maybe for other companies. I can't see that the reporting is helping us, but I see the need, so don't misunderstand. I see the need to report.

Similarly, the Head of Performance Management within the CFO Function also questions the purpose of the CSRD. Furthermore, she suggests that the strategy is well-implemented in the first place, and therefore unaffected by new requirements:

I wouldn't say that it's changed the strategy. I would say, perhaps, it would have been strange if it did. [...] But maybe that's a sign that these objectives were very well rooted in the strategy from the start.

The former Head of Corporate Risk also shares a similar opinion:

I think our objectives in this was, I think, carved out prior to us understanding or seeing what was going to be required. So, I'm not sure if it's impacted sort of the urgency, or the strategy, or the way the organisation acts. I think the direction and everyone trying to achieve that has been there for a while, but obviously with step ups.

According to the Chairman of the Board, Energy ASA has been focusing on fulfilling the reporting requirements and delivering on their existing ambitions rather than changing the strategy. He elaborates further:

We have now been practicing for two years, trying to do as much as possible within this, to be ahead. But at the moment, I don't think it's in the cards that we will accelerate our ambitions. I think the last few years, the world has been full of companies increasing their ambitions, but deliveries have not been there. So, the focus now, in my opinion and for us, is to deliver what we have, and make sure we are confident we can get done with what we have promised to do. We can always make more ambitious targets, but I don't think it will add any value if we can't deliver on what we now have come up with.

In conclusion, despite the different perspectives, there seems to be more or less a common agreement at Energy ASA about whether the CSRD has an impact on their long-term planning. Two out of ten interviewees state that the EU requirements do have a reinforcing impact, as it put pressure to deliver the strategy and is of interest to stakeholders. However, eight out of ten interviewees state the regulations have not changed their strategy - neither the strategy itself, the long-term actions nor the pace. The interviewees highlight that the company behaviour is grounded in their strategy which was established prior to the introduction of the CSRD. This indicates that the CSRD do not conflict with their strategic focus on goals and actions for longer term, affirming that Energy ASA's strategy was effectively designed and well-implemented from the outset. As a result, the long-range planning at Energy ASA is not affected by the CSRD.

6.2.2 Action planning

Our literature review suggests that regulatory-driven environmental management control systems can have an unintended consequence, in terms of a short-term dampening effect on environmental innovation (Antonini & Gomez-Conde, 2024). In our context, this may imply that the increased focus on external reporting due to the CSRD come at the expense of the company's short-term goals and actions, including environmental innovation. On the other side, the CSRD may influence companies to improve their short-term sustainability activities. In this regard, twelve interviewees are asked whether the EU regulations have influenced the company's focus on actions and innovation. Based on these responses, we examine whether the CSRD has an impact on the action planning at Energy ASA.

In this regard, our findings are somewhat contradictory. One out of the twelve interviewees, the Vice President for Performance Management, perceives the EU directive as positively influencing the actions and goals at Energy ASA. He expresses a positive outlook on the introduction of the CSRD, stating the following:

As a general statement, I think the push from EU on this topic is helping us. I think at least, and I'm not an expert on the reporting requirements, but in the bigger picture, I consider EU to be quite forward leaning on these topics and contributing to push us in the right direction. And then, obviously, also there is a risk to be balanced here on not getting in too detail, making sure that we have systems that actually make us possible to report on it, and that we also, of course, in everything we do, we consider the cost benefit of the different regulations that (). But my general impression is that this is [...] pushing us in the right direction, and it's also helping us setting up a performance management framework that helps us.

Thus, it is stated that the CSRD supports the development of a performance management framework and drives the company towards the right path. Although balancing cost and detail may be a challenge, he argues that the regulation is seen as a positive influence on the company.

While the CSRD offers certain advantages, two out of the twelve interviewees place a greater emphasis on its negative aspects. The CSRD require companies to report in accordance with

the ESRS, leading to significant implications for subsequent actions. On the question on whether the CSRD has positively or negatively impacted their focus on actions and innovations, the Executive Vice President of the Safety and Sustainability Function provides the following response:

Well, so far negatively in that respect. It's a lot of work reporting, but I do understand that it's needed. I think this could help. Because we have our energy transition plan whether we have to report or not. So, for us it's not helping to accelerate the energy transition, but it could be for other companies that don't have an energy transition plan. That by reporting they see that they need to do some more actions. So, maybe for other companies. I can't see that the reporting is helping us, but I see the need, so don't misunderstand. I see the need to report.

Although she sees the need for mandatory sustainability reporting requirements as it may lead to increased actions on sustainability, she states that this is not the case for Energy ASA. Instead, she further elaborates on the increased workload:

We spend a lot of our FTE's (Full-Time Equivalent) doing reporting compared to driving the energy transition. And then we have a project ongoing now to try to digitise it all to free up resources, but also to make sure that's even better quality when we get rid of all the Excel spreadsheets. If you talk with the big group working with sustainability in [Energy ASA], they will feel they spend too much time on reporting compared to looking forward. But the energy transition is more business transition compared to sustainability.

Thus, she concludes that the CSRD has negatively impacted the focus on actions and innovation, as the employees in larger degree are being involved in the reporting process at the expense of driving the transition.

The former Head of Corporate Risk further expresses a lack of clarity in the standards, emphasising its costly implications for the company. She highlights that the CSRD is so unclear that it requires multiple employees to collaborate and reach consensus on its application:

I would say that there is a huge amount of cost intensive reporting here that I would really question. That won't change anything about the way that we work in the company, but it's costing us a lot of money to report on it. Honestly, that would be my opinion. The other thing I would add to that is it's also challenged by the fact that the requirements that come out are so comprehensive and not very well written. Having to go in and try to understand them and discuss between ten of you, 'what are they really looking for? what do they mean here?', is cost intensive as well.

Despite the increased reporting workload, nine out of twelve interviewees maintain that Energy ASA's focus on actions and innovation remains unaffected. In the following, we present their views.

The Performance Manager in the Technology and R&D Business Area emphasises that only a minority of the large organisation is impacted by the reporting, suggesting that Energy ASA as a whole remains unaffected. Thus, she disagrees with the notion that there could be a lack of focus on actions and innovation:

I would disagree to that. Because it takes much time from those involved, but this is a large organisation, and the majority is not involved in this reporting.

This statement is supported by the Performance Managers in the Norwegian and International Oil and Gas Production Business Areas:

I haven't felt that we spend a lot of time. I feel like we're quite efficient on that part (Performance Manager in the Norwegian Oil and Gas Production Business Area)

No, we are helping some part of it, but no. (Performance Manager in the International Oil and Gas Production Business Area)

Furthermore, neither the new Head of Corporate Risk nor the Executive Vice President of the Human Resources Function have seen such changes. The new Head of Corporate Risk suggests that external reporting has not been viewed as a significant or time-consuming issue, while the Executive Vice President of the Human Resources Function concludes that the resource allocation does not impact the transition:

As corporate controller again, I have not seen that focus has been diverted from the main tasks of the organisation. I don't think that external reporting has been addressed as a problem or time-consuming requirement on the asset by asset or project by project basis at least. (New Head of Corporate Risk)

I don't think it's slowed down or increased the speed of the transition as such. It's more about how much resources you actually need to put onto it. (Executive Vice President of the Human Resources Function)

The Controller in the International Oil and Gas Production Business Area in the US discusses the potential impact of introducing new internal controls over sustainability reporting. However, he has not yet been affected:

Haven't hit me, no. [...] If and when this is implemented in the US, it would be put under my umbrella, and I need to make sure that those controls are designed and operating effectively. And they would become a distraction, if you will, if they don't.

Next, the Head of Performance Management within the CFO Function notes that there is a strong alignment between internal and external reporting, and as a result, she has not observed any loss of focus on actions:

No, but then again, I haven't seen that we've lost focus on actions. [...] For us, I wouldn't say that it has. I think there is good alignment, so what we report internally is a far greater level of detail than what we would disclose or discuss externally. So, I haven't seen that.

Furthermore, the Chairman of the Board highlights that Energy ASA has already made significant progress in sustainability reporting in compliance with the CSRD, noting that a large company like theirs has the necessary resources to achieve this:

I am, fortunately I would say, not burdened with ticking off all the boxes here. But we had a session, [...] where we went through what we have done to prepare for this reporting, and how we work with this, et cetera. I think the impression was that we have come quite far, but we have the muscle to do that. So medium-sized companies, I think this is a big burden that they're getting in the laps.

He concludes by stating that the increased workload is likely to pose a greater burden for smaller companies, a perspective widely shared within the organisation. The Executive Vice President of the Human Resources Function further adds that this burden could eventually overwhelm such companies:

It must be almost impossible, to be quite honest, and that can actually breakdown, I think, medium-sized companies in the end. That was one example from Paris, one of the French banks, he actually hired 100 people to cope with the ESG reporting system. So, there might be threats, actually, to even bigger companies if it's getting out of hands.

Finally, the Senior Vice President of the Safety and Sustainability Function expresses hope for the future, envisioning that smaller companies will also have the capacity to enhance performance rather than focusing solely on reporting:

It is a risk, I see, or it's a risk, I think, also for smaller companies, that you will be so overburdened by reporting that you have little capacity for doing. [...] The main purpose of reporting, I think, should be to be transparent towards the outer world, but also that you can use the data to improve. [...] So, I hope that at some point further down the line, we can use all that data to enhance performance and not only report.

To conclude, twelve employees at Energy ASA provide responses on whether the action planning is affected by the CSRD. One interviewee highlights a positive impact on actions related to the performance management framework, while two interviewees claim that the increased workload comes at the expense of the company's focus, negatively impacting actions and innovation. However, the ten remaining interviewees have not observed any loss of focus, as most employees are not directly involved in external reporting. As a result, the external reporting is not perceived as a time-consuming requirement within the company as a whole. Furthermore, Energy ASA has prior experience with sustainability reporting in compliance with the CSRD and, as a large organisation, possesses sufficient resources to manage these requirements effectively. While there is a recognised risk of companies being affected by the increased workload associated with the CSRD, this concern does not appear to apply to Energy ASA. Hence, the increased focus on external reporting does not seem to

improve nor significantly hinder the company's short-time actions and goals within sustainability. Thus, the action planning is not significantly affected by the CSRD.

6.3 Cybernetic controls

As described in Chapter 2, the CSRD is designed as a tool to influence company behaviour. Therefore, it is reasonable to expect that the cybernetic controls will also be impacted to align with these external demands. In this section, we seek to investigate whether the introduction of the CSRD has led to changes at Energy ASA's cybernetic controls. More specifically, we examine the potential impacts related to Energy ASA's internal reporting processes and their non-financial measures, referred to as KPIs. First, we introduce the KPI framework at Energy ASA in Subsection 6.3.1. Subsequently, we present the impacts of the CSRD on internal process in Subsection 6.3.2. Subsection 6.3.3 reflects on whether the CSRD has influenced the KPIs specifically. Finally, we conclude our findings in Subsection 6.3.4.

6.3.1 The KPI framework at Energy ASA

The KPI framework is a central element at Energy ASA's cybernetic controls. In this regard, the Vice President for Performance Management is a key interviewee. He initially elaborates on the KPI framework at Energy ASA in general:

The [KPI framework] has been developed over many years in [Energy ASA]. [...] I think it's now deeply rooted in both of our management systems and in the way we do this. So, it has five perspectives. [...] It's the safety, the security and sustainability perspective. It's the people and organisation perspective. It's the operations perspective, the market perspective and the finance perspective. And within all of these perspectives, we define performance indicators, targets, actions and risks that we gather in our tool, our system, the MIS system, and we establish this for relevant levels in the organisation.

To gain a deeper understanding of the KPIs used internally in relation to sustainability, we ask the Senior Vice President of the Safety and Sustainability Function how net-zero is integrated at Energy ASA's KPI framework. She responds with the following:

On scope 1 and 2, the CO2 intensity, that's the key performance indicator [...], we have explicit ambitions and targets for, we have 2025, we have 2030, we also set targets for each year, year by year internally. It's only applicable for the upstream part, so for the [...] [Norwegian Oil and Gas production Business Area] and [sales and midstream business area] and [International Oil and Gas Production Business Area], [...] and also the [Projects and Procurement Business Area]. All of them have different versions of this indicator but adjusted to what's relevant for them.

These KPIs are visualised to the employees at Energy ASA by using scorecards presented in their management information system (MIS). She further elaborates:

It's very well known. It's on when you open our [KPI framework] or the management system page, on the front page for the whole company, you have actions on the energy transition plan, you have the CO2 intensity with some light, a green light at the moment.

Returning to the Vice President for Performance Management, he emphasises that the scorecards are adjusted to each unit's role within the company and their responsibility within sustainability. Our secondary data reveals that Energy ASA has more than 600 scorecards across the company. The Vice President for Performance Management further elaborates:

But, of course, it is adapted and fitted to where in the organisation you are. If you are operating an installation on the NCS, the focus will typically be on the relevant parameters, like their own emissions and running energy efficient operations, and not having any spills to the sea, et cetera. While at the group level, you have the broader perspective, that you also will read about in the energy transition plan and in the annual report.

Hence, the KPI framework serves as a foundation for cybernetic controls at Energy ASA, with sustainability well-implemented. CO2 intensity is the most significant KPI, with relevant adjustments tailored to each business area. Additionally, the KPIs are accessible to everyone through hundreds of scorecards adjusted to each unit and visualised through the MIS. The KPI framework thus facilitates a feedback loop by using traffic lights in the scorecards, showing a

green, yellow or red light. These are used to compare the actual performance on sustainability to targets and further modify their behaviour.

6.3.2 The CSRD's impact on internal reporting processes

Building on the KPI framework and the KPIs on sustainability performance at Energy ASA, we further explore the link between the CSRD and internal reporting processes. In this case, the two interviewees in Performance Management within the CFO Function are essential. According to the Vice President for Performance Management, the CSRD has served as a significant factor for their internal reporting:

In my view, that has been an important input factor in how we also follow up internally. In some cases, we can apply the standards more or less directly. In others, there are examples where we do some conscious choices on what we really think is measuring the right behaviour and the right performance. So, if you think it is right to deviate and there is a good reason for that and we know why, then we do that.

Although the CSRD introduces various requirements, not all are directly applicable within the company. The standards are therefore carefully considered. Next, the Head of Performance Management further elaborates about the link with the CSRD:

Yeah, I would say that it's very closely interlinked. We think that that's important. Because if we have that type of double reporting, so one thing that is important for internal purpose and one external, then the communication gets very complex, and at some point, we wouldn't meet the requirements set by external reporting either. That has been important to us, to find the right measures that we can use both for internal and external purposes. That puts some restrictions on what we can measure.

While she states that internal and external reporting are closely interconnected, she further explains that there are still some differences:

Internally, we use a lot more portfolio prediction parameters, which we would set, for instance, how likely is it that will reach this target, the portfolio looks to be trending in this, this is our forecast for oil and gas production in future year, for instance. But that's not something that you can or should disclose externally, and it's hugely

uncertain. We will not be able to use that for in any meaningful way externally, so we will have to couple our progress assessments with that type of internal assumptions as well. But I would say that there's very close alignment between what we use externally and what we also monitor internally.

Thus, Energy ASA monitors and reports on a broader set of KPIs internally than those disclosed externally. This is confirmed by the Vice President for External Reporting. He elaborates on the process of setting the external KPIs based on the KPIs they use internally:

[...] the only thing I was part of was that when we decided which KPIs should be included in the report. And we're trying to "OK, we have a material topic", typically that () the main areas, "what are the good indicators that we want to include?". And then we go back to the business and say, "what are we actually using internally?" Because what is for certain, we did not invent any KPIs that's only used for external purposes. What is used externally, is also used internally. [...] [the Safety and Sustainability Function] are also developing some other internal KPIs, that maybe have not reached the stage of sufficiently quality assurance maturity, that we're comfortable with using those KPIs externally. [...] for external reporting, saying that if you put something in, it's very sticky. It's easier to get numbers, KPIs, into a report, but it's very difficult to get it out. Because suddenly someone find that useful and they start asking for it. [...] But of course, we don't report on all indicators, because we have a lot more internally than end up in the report.

Hence, he confirms that there are more KPIs used internally than externally and explains that they are more cautious about including internal KPIs in the report due to concerns about quality and stickiness. Additionally, his statement indicates that the internal KPIs are also used externally, rather than the other way around.

The Head of Performance Management within the CFO Function further adds that the CSRD has impacted the level of detail in the reporting:

But what it certainly has is the external requirements related to climate reporting, the double materiality standards, and that has changed the way we communicate around it and has also introduced more details in areas which perhaps previously was less

detail reported. But not related to our main KPIs that we use for monitoring the business. [...]

Additionally, she observes that the KPIs have gained greater visibility, which in turn raises expectations for data quality:

But I think what it has changed is, as I said, it's been made some of these KPIs, some of these areas more visible. And that also introduces, because you need to report it, you need a certain quality, you need to work on how to get to that level of quality. We can't have these internal subjective assessments as measure of progress. That has introduced better systems around this. Easier and clearer way to monitor progress. And that, I think is a consequence from that.

Thus, Energy ASA has enhanced its data systems in response to the CSRD. This view provides support among three other interviewees. The Senior Vice President of the Safety and Sustainability Function states that the CSRD has driven Energy ASA to adopt an even more systematic approach to the digitalisation of sustainability data. In her opinion, the digitalisation might have occurred regardless, but she also acknowledges that the CSRD has accelerated the process. Next, the Vice President for External Reporting further elaborates:

In financial reporting, we are used to having good processes, control activities along the way, and being responsible of the full product. We try to apply the same for the sustainability part of the process, including also a significant lift we are doing in digitalising data, moving away from Excel spreadsheets, where maybe the platform for collecting and putting together data, to now more specialised IT systems that ensure the audit trail, quality review, et cetera, and, in general, quality of the data we are using.

Finally, the Chairman of the Board also highlights the enhanced data systems as a positive outcome of the CSRD:

It may be more the improvement on automation and generating data differently than maybe we have done before. So, that's probably one of the things that trigger improvements, if anything.

6.3.3 The CSRD's impact on the KPIs

Next, five interviewees are asked whether they have observed any specific changes in the KPIs following the CSRD. The Head of Performance Management within the CFO Function responds that she cannot come up with any examples of specifically changed key KPIs, which may be interpreted as there has been no changes. This interpretation is supported by the remaining four interviewees' responses. When asked whether there have been any KPI changes, they provide the following responses:

I haven't seen anything (Former Head of Corporate Risk)

I haven't seen that (New Head of Corporate Risk)

No, not really (Head of Performance Management and Portfolio Management within the Renewable Energy Business Area)

No, no (Performance Manager in the Norwegian Oil and Gas Production Business Area)

Hence, although the Vice President for Performance Management and the Head of Performance Management within the CFO Function claim a strong connection between the CSRD and internal reporting, this does not imply that the KPIs have been modified. The Vice President for Performance Management explains that the KPI framework and their reporting system is not something new. When asked whether net-zero was integrated into the MIS immediately or only recently, he provides the following response:

I think it was integrated as soon as it was available, I would say. So, from the first relevant year, this was the relevant metrics that we report on in the energy transition plan.

In this context, he refers to the implementation of net-zero in the reporting system as a result of the introduction of the energy transition plan in 2022. Therefore, the CSRD is not explicitly mentioned as influencing the integration of net-zero into the KPIs and MIS. He further elaborates:

We have always had this [Safety and Sustainability Function] perspective with us. And long time back, we have had performance indicators on for example operated emissions per barrel, the CO2 intensity. That is something we started early with, and then it has added on as we have developed, and as the industry have developed, and as the expectations to us have developed.

Therefore, the relevant environmental KPIs were integrated into the KPI framework at an early stage, prior to the CSRD. This is further confirmed by the Senior Vice President of the Safety and Sustainability Function, stating that they have used the CO2 intensity as a KPI for a long time. Based on this, it has not been necessary for Energy ASA to modify the KPIs following the introduction of the CSRD, as the KPIs were already well-implemented.

Additionally, the Vice President for External Reporting offers a different perspective. He expresses his frustration with the EU taxonomy KPIs, stating that the KPIs do not align well with the definitions of their internal KPIs. He stresses that a major weakness of the taxonomy is that it only considers subsidiaries or consolidated entities. Since Energy ASA conducts most renewable investments through equity-accounted joint arrangements, these are excluded from revenue, CapEx, and OpEx calculations. He further elaborates:

And OpEx, that is totally a meaningless KPI, because it's only about maintenance, comparability zero towards other companies. So yes, we need to be aware of it. We need to be aware of the differences because we get questions. So, this is maybe one of the external KPIs that is not an internal indicator, because we have our own. But then we need to reconcile, at least, to be able to explain the difference.

Thus, the EU taxonomy KPIs are regarded as ineffective based on their definitions, and therefore not well aligned with three of the internal KPIs at Energy ASA. He further describes the KPIs as misleading and that they underrepresent the company's energy transition efforts. As a consequence, Energy ASA voluntarily report on internal KPIs to provide a more accurate representation of their performance in the energy transition. Thus, the company reports on the internal KPIs and explain the differences between these and the EU taxonomy KPIs instead of modifying them.

6.3.4 Summary

To summarise, the KPI framework at Energy ASA works as a robust system for measuring and tracking sustainability performance, enabling a feedback loop to monitor progress and adjust accordingly. Four interviewees noted that the CSRD has accelerated the digitalisation of sustainability data, leading to improved data quality. Furthermore, two key interviewees report that the CSRD serves as a key input in how they manage internal reporting processes, creating a strong interconnection between the two. However, these are changes implemented mainly to ensure they comply with all new reporting requirements, while not directly leading to changes in environmental activities. More interestingly, the internal KPIs has not been changed, as stated by four out of five interviewees who were asked this question. This indicates that environmental KPIs were already incorporated in the KPI framework and the MIS following the launch of the energy transition plan in 2022. Furthermore, the three EU taxonomy KPIs does not align well with the KPIs they use internally. As more KPIs are utilised internally than externally, this suggests that the internal KPIs are presented externally, rather than the other way around. Consequently, the CSRD has improved internal reporting processes, but not led to any changes in internal environmental KPIs at Energy ASA.

6.4 Reward and compensation controls

The next type of controls in Malmi and Brown's MCS package is the reward and compensation controls. The CSRD aims to influence company behaviour, and improving reward and compensation controls may play a role in achieving this objective. Therefore, we examine whether this is the case at Energy ASA based on responses by eleven interviewees regarding bonus schemes.

To gain deeper insights, we begin with asking the Vice President for Performance Management to elaborate on the bonus schemes at Energy ASA:

Generally, we have two bonus schemes in [Energy ASA] [...]. We have what we call the general bonus, that applies for, in principle, all employees in the company. [...]. The two most important parameters in that is the total shareholder return and our relative return on capital. But on top of that, there is also a holistic assessment of how

we believe the full [Energy ASA] performance was for the full year [...]. And into that, the sustainability has equal weight as the other elements. That means that if we did poorly on the sustainability part, that will also possibly impact the bonus for all employees in the company. And then we have the individual bonuses, that applies for leaders at certain levels in the organisation, typically vice presidents and above. They are more individual based, but also in that, the primer input to setting the factor is the total holistic performance assessment for the group.

Hence, the remuneration system at Energy ASA includes a general bonus applicable to all employees with sustainability weighing equally as other elements, and an individual bonus tailored for leaders. The C-suite, however, is governed by a more specialised bonus scheme:

And then, it is for the [C-suite] only that we have a more targeted or detailed bonus scheme, where a selected list of indicators [...] is made available, and where it's said more explicit, for example, that all of them are measured on these four or five performance indicators. And then on top of that, there's also this total assessment.

He further adds that sustainability is integrated into the individual bonuses as well, determined by the individuals' impact on the sustainability ambitions:

[...] in principle I can confirm that all leaders applicable for bonus and applicable for a performance assessment will have a sustainability element in it, yes. And then it will vary what that is, depending on where in the organisation you sit, and how close you are to it. And how much you can influence.

Two other interviewees confirm the role of sustainability in the bonuses. The CFO and the Senior Vice President of the Safety and Sustainability Function provide the following responses:

[...] it is a very integrated part of performance management. The way we measure it, the targets we set and into actually decision criteria, and the way we measure each other when it comes to bonuses and all of that. So, it is an integrated part. (The CFO)

[...] it's part of the overall bonus system, but together with four or five other KPIs. (Senior Vice President of the Safety and Sustainability Function)

The Vice President for Performance Management further adds that the sustainability component in the bonus scheme is not a new element at Energy ASA:

We have also always had these climate and sustainability indicators part of the framework for remuneration and bonus et cetera.

To test the validity of our findings, we ask nine interviewees who are not part of the C-suite whether the net-zero ambition is directly linked to their bonuses. Among these, one interviewee could not answer due to lack of knowledge. However, the remaining eight interviewees all agree that sustainability is not part of their personalised bonus. This aligns with the fact that sublevels below the C-suite have not established KPIs that influence bonuses in the same manner.

The Vice President for Performance Management also points out that the C-suite bonuses are more formula-driven as a result of the disclosure requirements:

But due to the disclosure requirements we have now on these topics, there is a more mechanical starting point for the bonus for the [C-suite] than for other.

This may be interpreted as meaning that the new EU directive, the CSRD, have a role in the bonus schemes for the C-suite. However, disclosure requirements are only mentioned by one of the eleven interviewees. None of the ten other interviewees has mentioned any impacts of the CSRD in their answers on whether net-zero ambitions are integrated in the bonus schemes. Additionally, it is unclear how long the C-suite has had these KPIs in their bonus scheme. Therefore, it is plausible to conclude that the CSRD has not had an impact on Energy ASA's reward and compensation controls.

6.5 Summary of the empirical findings

In this chapter, we have presented our findings on the impact of mandatory CSRD reporting on the management control systems at Energy ASA. Specifically, we have examined whether the administrative controls, planning controls, cybernetic controls, and reward and compensation controls at Energy ASA as a whole are affected.

The administrative controls are divided into governance structure and organisational structure. First, our findings reveal an impact on the governance structure. The roles and responsibilities for external sustainability reporting have shifted, with the formal responsibility now lying with the Board Audit Committee and the CFO Function. Accordingly, the Board's engagement in training and quality assurance has increased, as they are now required to sign off on a much more comprehensive report. However, it has not increased their focus on sustainability-related specific activities. Second, in terms of the organisational structure, Energy ASA has established project teams assisting the reporting process. However, the overall organisational structures remain largely unaffected. As a result, mandatory reporting under the CSRD *has* affected the administrative controls, but the changes are mainly limited to roles and responsibilities in the reporting process. The focus on sustainability-related activities has not changed.

The planning controls are categorised into long-range planning and action planning. Concerning the long-range planning, the majority of the interviewees state that the strategy, long-term actions and pace of the transition is not affected by the CSRD. Rather, Energy ASA's net-zero strategy was effectively designed and well-implemented from the outset. With regard to action planning, a few state that short-term actions and innovation is negatively impacted due to the increased workload for those involved. However, the majority of the interviewees have not observed any loss of focus, indicating that the organisation as a whole remains largely unaffected. Therefore, we conclude that the mandatory reporting under CSRD *has not* significantly affected the planning controls at Energy ASA.

Regarding the cybernetic controls, the KPI framework at Energy ASA is central. The CSRD is considered a key input factor in the internal reporting processes and has improved the quality of sustainability data. However, the internal KPIs themselves have remained unchanged during the transition period. Thus, changes appear to be limited to activities ensuring CSRD compliance and not necessarily to changes with direct implications for specific sustainability-related activities. We conclude that the mandatory reporting under CSRD *has not* significantly influenced the cybernetic controls at Energy ASA.

Lastly, the reward and compensation controls at Energy ASA includes a sustainability element. Sustainability is integrated into both general and individual bonuses, together with

other KPIs, and represents a more personalised element in the bonuses for members of the C-suite. However, this integration does not appear to be a result of the introduction of the CSRD. Consequently, the mandatory reporting under CSRD *has not* influenced the reward and compensation controls at Energy ASA.

In conclusion, our findings reveal that the MCS package at Energy ASA has remained largely unaffected by the mandatory reporting under CSRD. Although the introduction of the CSRD has brought some changes to the administrative controls, the observed changes do not appear to have significantly increased the focus on specific environmental activities. Furthermore, the remaining controls show no significant modifications. These findings highlight that sustainability and net-zero goals were already well-integrated in the management control systems at Energy ASA from the outset. A summary of the findings is provided in *Table 3*.

Table 3: Summary of the empirical findings at Energy ASA

Management control systems	The impact of the CSRD
Administrative controls	Affected
Governance structure	Affected
Organisational structure	Not significantly affected
Planning controls	Not significantly affected
Long-range planning	Not affected
Action planning	Not significantly affected
Cybernetic controls	Not significantly affected
Reward and compensation controls	Not affected
Cultural controls	N/A

7. Discussion

In Chapter 7, we aim to apply the empirical findings from Energy ASA to address our research question: *has mandatory reporting under the CSRD influenced the management control systems in large companies, and if so, how?* In Section 7.1, we compare our empirical findings with the existing literature presented in Chapter 4. Next, in Section 7.2, we discuss potential factors explaining our results in relation to relevant theories.

7.1 Comparison of the empirical findings with prior research

As presented in Chapter 6, we conclude that the management controls systems at Energy ASA are only marginally affected by the CSRD. Based on our findings, the administrative controls have changed to some extent, while planning, cybernetic controls and bonuses at Energy ASA appear to remain largely unaffected following the CSRD. The impact on cultural controls was not explored.

Of relevance to the focus of this thesis, Traxler et al. (2020) used Malmi and Brown's (2008) MCS package as an analytical framework to cluster relevant studies in their literature review. As part of this review, they investigate how sustainability reporting affects management control systems. Regarding administrative controls, Traxler et al. (2020) find that sustainability reporting appears to influence governance structures (e.g. Adams & McNicholas, 2007; Frostenson & Helin, 2017; Lozano et al., 2016; as cited in Traxler et al., 2020). This aligns with the findings of our study. However, they also suggest it can lead to changes in organisational structure (e.g. Arjaliès & Mundy, 2013; Lozano et al., 2016; as cited in Traxler et al., 2020), which is not observed in our case.

Regarding both planning and reward and compensation systems, our findings appear to contradict the positive findings summarised by Traxler et al. (2020). For planning controls, they suggest that reporting helps companies incorporate sustainability issues into the planning process and integrate sustainability goals into their corporate strategies (e.g. Bouten & Hoozée, 2013; Kerr et al., 2015; Kloviené & Speziale, 2015; Lozano et al., 2016; as cited in Traxler et al., 2020). Next, they note that a few studies find that companies include sustainability related

indicators from the report into reward and compensation systems (e.g. Adams & Frost, 2008; as cited in Traxler et al., 2020). Controversially, the integration of sustainability into Energy ASA's corporate strategy and bonus schemes appears to be independent of the external sustainability reporting requirements.

For cybernetic controls the comparison to our study is more unclear. According to Traxler et al. (2020), studies suggest that sustainability reporting leads to organisational changes in data collection processes and in the use of indicators (e.g. Adams & McNicholas, 2007; Kloviené & Speziale, 2015; Lozano et al., 2016; as cited in Traxler et al., 2020). In comparison, we similarly find that the CSRD contributes to improvements in data collection processes. However, the external KPIs have apparently not changed the use of sustainability-related KPIs internally at Energy ASA. Rather, they report more environmental KPIs internally than externally and the choice of external KPIs is based on their internal reporting. This finding aligns more with a case study by Frostenson and Helin (2017), which found that sustainability reporting exists relatively independently of internal KPIs and targets and rather serves as a communication tool for reporting selected KPIs. However, in partial contrast, a couple of employees involved in internal reporting at Energy ASA argue that the external and internal reporting are closely interlinked.

Despite these considerations, it should be mentioned that Traxler et al. (2020) also emphasise limitations of these positive findings, highlighting that they cannot state causality or be generalised. Particularly, the voluntary nature of the reporting examined in these studies makes it difficult to conclude whether the observed changes in management control systems can be attributed solely to the reporting. For this reason, we also compare our findings with relevant prior studies on the impacts of mandatory reporting requirements.

Based on our literature review in Chapter 4, seven studies on the impacts of mandatory sustainability reporting on corporate behaviour are identified. Two of these studies yield results similar to ours. First, the main conclusions by Fiechter et al. (2022) appear to align well with our findings. While they argue that companies on average respond to the NFRD by increasing their CSR activities (including both social and environmental activities), the study does not identify a significant impact on environmental activities when these two are analysed separately.

Similarly, de Villiers et al. (2024) find no evidence that the NFRD improved the environmental performance of affected EU companies. Although we distinguish between activities and performance in this thesis (see Section 4.1), there is likely a positive relationship between the two, assuming that more sustainability-related activities lead to better environmental operational outcomes.

On the other hand, the remaining five studies from our literature review suggest positive impacts on corporate behaviour following mandatory sustainability reporting. Consequently, the majority of the identified research seems to contradict our findings. However, only two of these five studies claim causality. First, Cuomo et al.'s study (2024) demonstrates a positive effect of the NFRD on environmental performance. Second, and particularly relevant, the study by Antonini and Gomez-Conde (2024) suggests that the NFRD had a significant and positive effect on the adoption of environmental management control systems in affected companies on average. Furthermore, they find that regulatory-driven EMCS has an unintended consequence, in terms of a short-term lessening effect on environmental innovation. In contrast, our findings do not provide any support for a significant impact of the CSRD on environmentally related activities at Energy ASA.

The remaining three studies also identify improvements in corporate behaviour following the introduction of various mandatory reporting requirements (Aureli et al., 2020; Christensen et al., 2021; Jackson et al., 2020). However, these studies only suggest positive relationships and not real causal effects. For example, Christensen et al. (2021) acknowledge that regulation is not implemented in isolation. They argue that mandatory sustainability reporting and sustainability activities are often partially driven by societal pressure, which makes it challenging to distinguish the effects of mandatory sustainability reporting from changes in activities that might have occurred independently of the regulation (Christensen et al., 2021).

Furthermore, one could argue that this challenge also partially applies to the studies above, which attempt to test for real causal effects. For instance, Fiechter et al. (2022) acknowledge that they “cannot rule out that the CSR Directive itself is a response to an underlying EU trend toward more CSR, a trend which may also affect our treatment firms” (Fiechter et al., 2022, p. 1542). As a result, they cannot be entirely certain of having identified the true causal effect. This limitation also applies to our findings.

When comparing our study on the CSRD to previous studies on the impacts of other mandatory reporting requirements, one could also question whether it makes a difference that those initially subject to the CSRD were previously required to follow the NFRD. Namely, this means that it is no longer a shift from voluntary reporting to mandatory reporting, but rather a significant expansion of mandatory reporting requirements. As Energy ASA was previously subject to the NFRD, this consideration is relevant to our study.

In this section, we have seen that while a few of the studies appear to support our findings, several report positive impacts as their main conclusions. Consequently, most appear to contradict our findings, although causality remains uncertain. However, some of these prior studies include additional analyses suggesting that the effects are stronger in companies with a low prior level of sustainability activities (Antonini & Gomez-Conde, 2024; Cuomo et al., 2024; Fiechter et al., 2022; Jackson et al., 2020). For example, the study by Antonini and Gomez-Conde (2024) finds that companies with more developed EMCS prior to the regulation did not adopt additional control systems after the NFRD came into effect. In other words, the EMCS in these companies were not driven by the EU requirements. Accordingly, these studies may not be entirely in conflict with our findings after all. This aspect will be discussed further in the next section.

7.2 What factors may explain our results?

As presented in Chapter 4, Milton Friedman (1970) claims “there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud”. Sustainability reporting itself does not directly generate revenue, unless transparency leads to an increase in stock price and revenue. Similarly, integrating sustainability into its management control systems does not directly maximise shareholder value. Thus, Energy ASA would otherwise have no incentives to engage in sustainability reporting prior to the NFRD, nor to incorporate sustainability in its management control systems prior to the introduction of the CSRD.

However, mandatory reporting requirements may serve as a powerful tool to change company behaviour, aligning with the purpose of the CSRD. As Energy ASA is a major player in the

oil and gas industry with substantial emissions, the CSRD requirements become significant. According to the Friedman Doctrine, our empirical findings should suggest that mandatory reporting under the CSRD would significantly impact the management control systems at Energy ASA. However, our empirical findings do not align with the Friedman Doctrine. Through the multi-purpose interviews, we identify two key factors that may explain the lack of impact on their MCS: i) sustainability was already well-integrated prior to the CSRD, and ii) they have engaged sustainability reporting for a long time.

First, Energy ASA had incorporated a sustainability perspective in its operations prior to the CSRD. As revealed by our findings, the company had already begun its transition into a broader energy company. The Board was already engaged in the energy transition. The company already had a dedicated Safety and Sustainability Function and a Renewable Energy Business Area, working towards reducing the company's carbon footprint and developing sustainable solutions. The energy transition plan and the net-zero strategy were already introduced, and sustainability was already well-implemented in the KPI framework. Lastly, sustainability was already incorporated in the bonus schemes, with equal weight as other performance indicators. These examples demonstrate that the company has been forward-looking, having implemented changes in the management control systems already prior to the CSRD.

As part of the multi-purpose interviews, the interviewees were also asked more general questions about their view on the driving forces behind implementing the net-zero strategy at Energy ASA. It is evident through the interviews that the net-zero strategy was primarily driven by internal factors: a strategic belief that developing a transition plan was essential to be a relevant company in the long-term perspective. Specifically, the company recognised renewable energy and low-carbon solutions as being the most profitable solutions in the future. Also, the new CEO really believed in the transition story and had a desire to drive Energy ASA towards what was perceived as the right direction.

The net-zero strategy was also partly driven by external factors, with several being mentioned. First, stakeholders expect Energy ASA to transition and take a leading role in this area. Second, it is mentioned that transitioning was becoming the industry practice, with competitors doing the same. There was a lot of debate both in Norway and internationally

about the emissions from oil and gas. Consequently, oil and gas companies recognised that they were part of the problem, and wanted to take part of the solution. Third, there was an ask for everyone in the society to contribute solving the climate change, probably the largest challenge in our times. Energy ASA acknowledges the effects of climate change by subscribing to the Paris Agreement, realising that the company plays a bigger role than simply creating shareholder value. Additionally, the state as an owner plays a role because whatever is important for Norway also becomes important for Energy ASA, thereby broadening Energy ASA's responsibility for the society. Thus, the transitioning from an oil and gas company has primarily been business wise, however impacted by the external factors.

Rooted in the identified driving forces for integrating sustainability into Energy ASA's management controls, the stakeholder theory is predominant. According to this theory, organisations are not only accountable to investors and funders, but they must also balance a wide range of stakeholder expectations and interests (Freeman, 1984). This is relevant in our case as Energy ASA is expected by stakeholders to take a leading role in the energy transition, assuming social responsibility and actively contribute to addressing climate change. Furthermore, the driving force behind the company's net-zero strategy is primarily a strategic belief that transitioning from oil and gas to renewable energy and low-carbon solutions is necessary to remain relevant and profitable in the long term. This is the core in the instrumental perspective of the stakeholder theory, suggesting that broadening the focus beyond shareholders to include a wider range of stakeholder groups is crucial for long-term success (Freeman, 1994; Freeman et al., 2004; Mitchell et al., 1997). Alternatively, failing to consider stakeholders can threaten the company's future (Clarkson, 1995).

The legitimacy theory serves as a valuable supplement to the stakeholder theory in this context. As Energy ASA acknowledges its role as part of the problem, takes responsibility to become part of the solution, and commits to the Paris Agreement, the company demonstrates a clear attempt to maintain and strengthen its legitimacy.

The other key factor in explaining the lack of impact on management control systems is that Energy ASA has engaged in sustainability reporting for a long time. The energy company started with sustainability reporting as early as 2001. Hence, the company voluntarily produced sustainability reports in compliance with the Global Reporting Initiative prior to the

introduction of the mandatory NFRD and CSRD. Furthermore, Energy ASA has also made sustainability performance metrics available on their website. The motivation driving this engagement was the company's commitment to openness about its values and transparency in its actions. Although sustainability information was also appreciated by various stakeholder groups, the company's internal forces were the most evident. Consequently, Energy ASA has always been forward leaning when it comes to addressing CO2 emissions and climate change, positioning itself well ahead of many competitors already from 2001.

Regarding Energy ASA's motivations for voluntary sustainability reporting, the institutional theory is relevant, specifically the concept of normative isomorphism. Normative isomorphism involves adopting norms and practices, perceiving certain actions as the right thing to do (de Villiers et al., 2024). This is relevant in this case as Energy ASA has engaged in voluntary reporting to demonstrate openness and transparency, emphasising that the motivation originates internally rather than maximising profit. However, according to the signaling theory, companies with better sustainability performance indicators communicate their outcomes and impacts more often than those with lower levels of performance (Bini & Bellucci, 2019). Therefore, it may be interpreted that Energy ASA's voluntary reporting efforts actually stem from their pride in being early adapters to sustainability practices and a desire to signal their sustainability excellence, rather than the other way around.

In this section, we have seen that while sustainability is a significant focus at Energy ASA due to its substantial emissions, minimal of their activities can be attributed directly to the CSRD. Based on our discussion, this is due to an inherent bias in our case study. First, Energy ASA had already incorporated sustainability into their management control systems, as the company has taken a proactive approach to addressing CO2 emissions and climate change. This approach may be explained through stakeholder theory as a long-term survival strategy, based on the belief that these efforts will remain essential in the future. Second, Energy ASA has been engaged in sustainability reporting for over 20 years, which may be explained by their strong sustainability performance. Hence, Energy ASA's early adaption to sustainability practices may explain both their engagement in voluntary sustainability reporting and why their corporate behavior is minimally affected by the CSRD.

Building on this, it is reasonable to assume that our conclusion may differ for other companies. According to signaling theory, companies with lower level of sustainability performance have the tendency to omit reporting on its results (Bewley and Li, 2000; Li et al., 1997; Thorne et al., 2014). Companies that have not previously engaged in voluntary sustainability reporting may choose not to do so due to a lack of sustainability activities. Therefore, for companies that have not been engaged in voluntary sustainability reporting, the management control systems are likely to be significantly more impacted by the comprehensive CSRD compared to companies that have already excelled in sustainability activities.

8. Conclusion

Over the years, sustainability has increasingly gained more attention, both in society and research. Today, companies are expected to take significant responsibility in the transition towards a sustainable society and to be held accountable for the consequences of their operations. Based on the principles of the Friedman Doctrine, this expectation has intensified the demand for mandatory sustainability reporting requirements. Therefore, the European Union has introduced several reporting directives on sustainability, most recently the CSRD, with the objective to influence company behaviour through the disclosure of sustainability information.

While existing literature indicates a positive link between mandatory sustainability reporting and corporate behaviour, the limited number of studies attempting to identify a causal relationship reveals mixed findings. Therefore, our research is intended to help bridge this gap in the existing literature. With the CSRD's comprehensive reporting requirements, this study has examined whether its intended purpose is being realised in practice, guided by the following research question:

Has mandatory reporting under the CSRD influenced the management control systems in large companies, and if so, how?

To address the research question, we have conducted a qualitative case study of a large, multinational energy company. In this chapter, we conclude on the findings from our research. In Section 8.1 we answer our research question. Lastly, in Section 8.2, we outline the limitations of our research and suggests areas for further research.

8.1 Answering our research question

This research has investigated the potential impacts of mandatory reporting under the CSRD on the MCS at Energy ASA. Specifically, we have examined whether the administrative controls, planning controls, cybernetic controls, and reward and compensation controls at Energy ASA are affected.

Our empirical findings show that the CSRD has affected the administrative controls, with its primary influence on the governance structure. However, neither of the remaining controls are significantly changed. Regarding the planning controls, the majority stated that the regulations have not changed their long-term net-zero strategy nor the focus on related shorter-term actions. With respect to cybernetic controls, we found that although internal reporting processes have improved following the CSRD, this has not led to changes to the main sustainability KPIs. Similarly, we found no evidence that the reward and compensation have been affected by the CSRD. Thus, our empirical findings indicate that mandatory reporting under the CSRD so far has had minimal influence on the MCS package at Energy ASA.

Although the introduction of the CSRD has brought changes to administrative controls, these mainly relates to roles and responsibilities related to the external sustainability reporting process. The observed increase in responsibility for the Board and the CFO Function does not appear to have influenced their focus on the net-zero strategy specifically. This conclusion aligns with the fact that the long-term planning is unaffected. Accordingly, changes seem to be primarily limited to activities ensuring CSRD compliance, rather than a significant shift in focus on specific sustainability-related activities. Consequently, the intended purpose of the CSRD to influence company behaviour does not yet appear to have materialised in practice in our case study.

Two key factors play a dominant role in explaining our findings. First, sustainability was already well-integrated into Energy ASA's management control systems, as the company has taken a proactive approach to addressing CO₂ emissions and climate change. Second, the company has been engaged in sustainability reporting for more than 20 years. This also fits well with prior research, suggesting that companies with more developed EMCS prior to the regulation do not adopt additional control systems following mandatory sustainability reporting requirements (Antonio & Gomez-Conde, 2024).

Based on this, our conclusions may be applied to other large companies which have integrated sustainability into their operations at an early stage. According to signaling theory, these have also likely been engaged in voluntary sustainability reporting. In contrast, our conclusion will not be applicable to large companies beyond this group. Companies that have not integrated sustainability prior to the regulations' introduction are expected to be significantly influenced

by mandatory sustainability reporting, in line with prior research, institutional theory, the Friedman Doctrine and the purpose of the CSRD. Building on this, our research may contribute to the literature on the effects of mandatory sustainability reporting on the corporate behaviour of early adopters of sustainability reporting, as these companies appear to be the least affected by new reporting regulations.

8.2 Limitations and proposals for future research

This study has several limitations. As the first sustainability reports aligned with the CSRD will not be published until 2025, our thesis focuses solely on the impacts of the CSRD during the transition period, while companies are still adapting to the new requirements. This research may therefore serve as a foundation, while future studies could investigate the long-term effects on sustainability activities once companies begin publishing reports in accordance with the CSRD. Although our cross-sectional study found that mandatory CSRD compliance so far has had minimal influence on Energy ASA's MCS, a longitudinal study could provide insight into the potential long-term impacts of the CSRD. Based on our findings, it would be interesting to explore whether companies in the future can leverage the data to enhance their performance and not only focus on compliance. By doing so, they could gain a more comprehensive understanding of the CSRD's impact on corporate behaviour.

Second, we conducted a single case study of a large multinational corporation that was an early adopter of sustainability reporting. The findings cannot simply be generalised to other companies with different characteristics, such as size, industry, or country. In particular, future research could similarly conduct in-depth qualitative studies on the impact of the CSRD on listed SMEs, which will also be subject to the directive in the future.

Third, this study is limited to focusing on the environmental pillar and specific elements of Malmi and Brown's (2008) MCS framework. Future research could therefore investigate the impacts on the social and governance pillars as well, to provide a more comprehensive view of the implications of the CSRD on companies' management control systems. Furthermore, it would be valuable to explore the potential effects of the CSRD on cultural controls, as organisational changes for example may give rise to subcultures in different parts of the company.

Research on sustainability reporting and its impact on corporate behaviour is still in its early stages. As our findings primarily contradict prior research, there is a need to further explore the gap in literature on the causal relationship between sustainability reporting and corporate behaviour. Expanded research in this field will enable a better assessment of whether the new, comprehensive CSRD merely places a burden on companies while leaving their behaviour largely unchanged, or if it contributes to addressing climate change.

9. Declaration on the use of AI tools

Name and version of the AI tools: ChatGPT 3.5, ChatGPT 4.0, Microsoft Copilot GPT-4 and Sikt KI-Chat

Purpose of using the tools: generating ideas related to structuring the thesis, searching for relevant literature, understanding words and abbreviations used by interviewees when transcribing, paraphrasing and summarising articles, summarising anonymised quotes from interviewees in our data analysis, paraphrasing, simplifying and translating sentences used in our thesis, and improving sentence structure and vocabulary.

We are aware that we are responsible for all content of this master's thesis, including the parts where AI tools are used. We are responsible for ensuring that the thesis complies with ethical rules for privacy and publication.

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11. Appendices

11.1 Appendix A: Interview guide 1

1. Intro to top management (Chairman, CEO, CFO, Audit committee)
 - a. What were the **driving forces** for implementing the net-zero strategy? (external: regulations, political (owner ship) pressure etc. internal: profit/economic measures long term)
 - b. How did you **set the different pillars**, and specific **targets** (time and measures within different areas)?
The **process**: Top-down, bottom-up, top-down-up?
 - c. How are the **goals and actions implemented integrated** into the organisation and in systems, budget, KPI's, investment decisions and bonus plans etc. How widespread, how far down and out (or should it be/ambition)?
Different for different parts of the organisation (REN vs other business areas)
 - d. How is the implementation (progress, actions etc.) **monitored, reported** and how/when are **amendments** done to the goals, actions and KPIs?
 - e. Has the net-zero goal and strategy led to more or less **innovation** in their point of view? Why? Examples?
 - f. Different **scenarios** made? How is risk handled and reported and actions?
 - g. **Tensions**? Differences in goals, strategies, actions? How were and are tensions handled?
 - h. Tension between business areas? Especially between REN (less profitable, but get a lot of the capital investments versus 'not-clean' very profitable oil-/gas-production?
 - i. Differences in opinions in different parts of the world of the goals, strategies, priorities etc? (US, Brazil, Africa etc versus Norway/Europe)?
 - j. **External pressure** not to have such ambitious goals? How handled? Influenced changes in goals, strategies or actions?
 - k. The new **EU reporting requirements for ESG; good or bad**? Why? Takes away focus from internal development/innovation?
 - l. How much is the **net-zero strategy implemented in KPI/MCS** – (ambition framework) (profit/production/risk-focus before net-zero)? How much integration should there be? Prioritized by top management?
 - m. **Integration between external reporting, internal KPIs/MCS** in the net-zero area? Important?
Has the sign-off of the board on the sustainability report- including net-zero changed anything?

2. When we go the **specific owners** of the MCS, external reporting, investments (i.e. the different systems) the questions will relate more to **HOW the implementation is done or planned. How much integrated, what's done, what not** (and why) – what's planned?
And some questions similar as asked to top management to see if they are aligned on goals, implementation etc.
Tensions?

3. When we go to different **line managers** the questions will relate more to **how the new goals, strategies, KPI's influence their daily operations, incentives**.
If they agree/do not agree.
On **tensions**, how disagreements are solved (or not)
How different parts of the organisation (Renewable Energy Business Area ('clean'/new energy) versus 'dirty' (oil/gas), Norway versus not-Norway (US etc.)

11.2 Appendix B: Interview guide 2 - Revised version

1. What were the **driving forces** for implementing the net-zero strategy?
 - a. external: regulations, political (owner ship) pressure etc.
 - b. internal: profit/economic measures long term
 - c. CEO/CFO: pressure from the Board?
2. How did you set the different **pillars, and specific targets** (time and measures within different areas)
 - a. The **process**: Top-down, bottom-up, top-down-up?
3. What was the motivation behind choosing to join the movement for Science Based target initiative measurement and the **joining of the Climate Action 100 Coalition**?
4. In more **recent times: External pressure *not* to have such ambitious goals?** How handled? Influenced changes in goals, strategies or actions?
5. What is the **governance structure to assure net-zero progress?** (planning processes and official documents, systems, budget, KPI's, investment-decisions and bonus plans etc.). How widespread, how far down and out (or should it be/ambition)? Different for different parts of the organisation (Renewable Energy Business Area vs other business areas)?
6. **Communication** is an important part of getting understanding and perhaps acceptance of the new strategy. How did you do that? (Town hall- to whom? Videos? Education? Discussion forum?)
7. How is the **implementation** (progress, actions etc.) **monitored, reported** and how/when are **amendments** done to the goals, actions and KPIs?
 - a. Board: reported every board meeting/annually/bi-annually
Dashboard/powerpoint/green-yellow-red-lights
 - b. CEO or the CFO? Is the information automatically and regularly delivered or is there a dashboard they go to? Or . . .
8. How does Energy ASA (or how does it intend to) **control and manage risk related to Scope 3 Emissions** (suppliers/customers) not just at the upstream supplier level, but especially with the downstream 'users of sold products'?
9. Different **scenarios** made? Regulations, CO2 quotas, Carbon capture; behind/subsidies? How is **risk** handled and reported and actions?
10. **Tensions?** Differences in goals, strategies, actions? How were and are tensions handled? Tension between business areas? Especially between renewable business area (less profitable, but get a lot of the capital investments versus 'not-clean' very profitable oil-/gas-production?) Differences in opinions in different parts of the world of the goals, strategies, priorities etc? (US, Brazil, Africa etc versus Norway/Europe)?
11. The **new EU external reporting requirements** for ESG; good or bad? Why? Takes away focus from internal development/innovation?
Has the sign-off of the board on the sustainability report- including net-zero changed anything?

11.3 Appendix C: Interview guide 3 - Vice President for External Reporting

Request consent to the consent form. Inform that there may be some overlap with the previous meeting, as we require data collection through interviews, and that our focus will be on the net-zero aspect of sustainability.

Background and net-zero strategy

1. Shortly, what is your title, position and role in general?
2. What is your role regarding net-zero strategy, and when were you first involved?
3. How does external reporting impact the strategy?
 - Has the sign-off of the board on sustainability report brought any changes?
 - Sustainability has transitioned from being part of the marketing department to being integrated into the finance department. Has this brought any changes?
4. In your opinion, what were the driving forces for implementing the net-zero strategy? What driver was the most vital - internal or external?

Motivation for sustainability reporting

5. Energy ASA has been engaged in sustainability reporting since 2001. What drove this early adaption - EU regulation, strategy, stakeholder's expectations? What was most vital?

Internal collaboration

6. What are the processes in making the sustainability report? How do you collaborate internally to gain insights, and with who do you collaborate?
7. In the integrated annual report, which sustainability sections are you and SSU responsible for? Who was responsible for sustainability reporting before it was integrated into the annual report, and when did this change?
8. How do you determine which KPIs to report externally?

Internal versus external reporting

We have some questions regarding internal versus external reporting. First, in the 2023 integrated annual report you report on various metrics/indicators related to net-zero. Some of them are derived from the GRI standards (GRI 302 og 305, along with the sector-specific GRI 11), and some are labeled "Energy ASA own disclosure". So, our question is:

9. Are there any differences between what (metrics/indicators) you report internally and externally?
10. Are there any differences in the internal versus external reporting regarding definitions in the EU taxonomy, and if so, can you elaborate?
11. In your opinion, what has been the challenges with the sustainability reporting, both the first time you were involved, and now? Are there any metrics you are unable to report externally due to internal lack of data, systems, or competence?
 - What challenges do you encounter with Scope 3 emissions metrics, particularly concerning customers' use of sold products? How does Energy ASA plan to manage risks associated with these downstream emissions?

EU regulation's impact on internal MCS and the internal reporting

Then, we want to talk about the EU regulation's impact on external reporting, internal reporting and management control systems.

12. Have the EU regulation requirements affected Energy ASA's external reporting process? If so, how?
13. Have there been made any changes to the internal management control systems, in order to meet the external demands?
14. Follow-up from earlier: We have talked about the differences between internal and external indicators and metrics. Will there be any changes in the differences due to the transition from GRI to ESRS (from NFRD to CSRD)? What changes are due to the EU regulation?
15. In your opinion, do you see the EU regulation as a positive or negative driver?

Enterprise risk management/double materiality analysis and scenarios

The 2023 integrated annual report mentions that Energy ASA has a financial framework addressing climate-relating risks, that you stress test your portfolios across different energy scenarios and assess climate-related physical risks.

16. What are your responsibilities regarding scenario analysis and stress testing in the external reporting of sustainability?
17. Can you elaborate on the financial framework?

Tensions

18. How do sustainability reporting and enhanced knowledge about sustainability influence your and your employees' motivation to achieve the net-zero ambition?
19. Does the transition create any tension among employees, for instance regarding the emphasis on financial versus sustainability topics in the annual report?

Greenwashing

20. What are your thoughts on greenwashing? Has the EU regulation affected this?

11.4 Appendix D: Data cleaning guide

Format

Topic headings in CAPITALS (based on the interview guide)

Questions in *italics*

Symbols used

() - something is being said, but words spoken too unclear to transcribe

(word) - uncertainty of what was said, but a likely possibility

(...) - something is being said, but confidential, and therefore removed

italics - when the participant does something of meaning for the interview, for instance nodding, shaking its head or sharing its screen.

[] – when changing what the participant is saying

Confidentiality

The names of interviewer and participant are replaced by “Interviewer” or “I” and “Participant” or “P”

The names of employees, organisations, positions, departments etc. are replaced by codes to maintain confidentiality/anonymity. All codes are placed in square brackets. The codes are saved in a separate file.

Changes

Repetitive words are removed (“I think, I think”, “if, if”)

Incomplete sentences are removed

“Filler words” are removed («so», «yeah», «like», «and», «you know», «sort of», «but», «kinda», «OK», «well», «because», “of course”, “actually”, “et cetera”, “then”, “I mean”, “right”, “also”, “that”)

Norwegian words are translated to English or written in brackets.

"Gonna" and “wanna” are changed to " going to" and "want to"

The automatic transcription is corrected where incorrectly recognised by Teams

Abbreviations are written in full in brackets the first time they are used

11.5 Appendix E: Information sheet

Are you interested in taking part in the research project

“External sustainability reporting and internal management control systems”?

Purpose of the project

You are invited to participate in a research project where the main purpose is to find if and how external sustainability reporting has influenced internal reporting (KPI's, investment-decisions, bonus etc.) and if and how internal management control systems support the internal transition towards the "net zero" goals. We plan to do this by doing a case study; by interviewing key employees in a large organisation. This is part of a research project supported and funded by [Energy ASA], and will be used in an academic article and in a master thesis.

Which institution is responsible for the research project?

NHH Norwegian School of Economics is responsible for the project (data controller).

Why are you being asked to participate?

You have been pointed out by key persons working in the [new MCS] project. They perceived you as a key person to understand and get input regarding the research issue.

What does participation involve for you?

We will make an online digital interview with you on Teams. The interview will be recorded. The interview is expected to take no more than 45 minutes.

Participation is voluntary

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purposes specified here and we will process your personal data in accordance with data protection legislation (the GDPR).

The recording will be done on Teams. All recording will be at the NHH server, and only accessible for those directly working on the project (Finn Kinserdal, Steve Sutton – both employees at NHH, Victoria Solstad, Maria Gjesdal – students at NHH). Data is protected by access codes. Other persons in the project will not be able to see any recordings or names.

As part of the research and in publications, no names or company names will be disclosed. The level in the organisation will be described in as general terms as possible; e.g. “SVP”, and persons will be named “No. 1”, “No 2” etc.

What will happen to your personal data at the end of the research project?

The planned end date of the project is December 2025. Any personal data and the recordings will be deleted at end of the project. Only anonymized data will be stored for the future.

Your rights

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with NHH Norwegian School of Economics, The Data Protection Services of Sikt – Norwegian Agency for Shared Services in Education and Research has assessed that the processing of personal data in this project meets requirements in data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

- Finn Kinserdal at NHH by email
- Our Data Protection Officer: Arild Schanke at NHH by email

If you have questions about how data protection has been assessed in this project by Sikt, contact:

- Email: (personverntjenester@sikt.no)

Yours sincerely,
Finn Kinserdal
Project Leader
NHH Norwegian School of Economics

Consent will be obtained verbally as the first part of the recorded interview