

**Mercati, impresa e consumatori**

---

CORSO DI DOTTORATO DI RICERCA IN

**XXXVIII CICLO**

---

CICLO DEL CORSO DI DOTTORATO

**Regulating for sustainability: disclosure and due diligence mandates  
as drivers of organisational change**

---

Titolo della tesi

**Silvia Soriano**

Nome e Cognome del dottorando

**Prof.ssa Paola Demartini**

Docente Guida/Tutor

**Prof.ssa Maria Francesca Renzi**

Coordinatore



**Dottorato in “Mercati, impresa e consumatori”**

**XXXVIII CICLO**

Tesi di dottorato

**Regulating for sustainability: disclosure and due diligence  
mandates as drivers of organisational change**

**Dipartimento di Economia Aziendale**

**Settore Scientifico Disciplinare SECS-P/07**

Dott.ssa Silvia Soriano

**Dottorando**

Prof.ssa Paola Demartini

**Relatore**

Prof.ssa Mercedes Luque-Vílchez

**Correlatore**

**Comitato tesi:** Prof.ssa Paola Demartini

Prof.ssa Mercedes Luque-Vílchez

Prof.ssa Sara Trucco

Anno Accademico 2024/25

## **ACKNOWLEDGEMENTS**

The development and composition of this dissertation would have been impossible without the guidance of Professor Paola Demartini and Professor Mercedes Luque-Vílchez. They helped and supported me throughout this PhD project with kindness, dedication and professionalism.

In addition, I would like to express my gratitude to the Doctoral Programme in “Mercati, impresa e consumatori” at Roma Tre University and the “Dipartimento di economia aziendale” for their support.

I would like to express my gratitude to the wonderful people who listened to my ideas and offered valuable suggestions during my research visit at Córdoba University (including Professor Mercedes Luque-Vílchez, who later became the co-supervisor of this doctoral project). Despite the distance, they all made me feel at home.

I am grateful to the editors of the books to which I have submitted chapters derived from this dissertation for their suggestions. I would also like to thank the faculties of the 15th Spanish Conference on Social and Environmental Accounting Research (Madrid, 2025), the 12th Emerging Scholars Colloquium of the 35th International Congress on Social and Environmental Accounting Research, CSEAR (St Andrews, 2025), Phd Summer School in Sustainability Accounting, University of Bergen (Bergen, 2024) and the Sidrea National Conference 2024 (Ancona, 2024) for their constructive comments, which were instrumental in improving the quality of my research. In addition, my gratitude is extended to the experts and professionals who kindly agreed to be interviewed. I must recognize the financial support provided by the company under analysis in the case study presented in the third chapter of this thesis to be submitted to an international journal, in conjunction with Roma Tre University. Without this support, this dissertation would have been unfeasible.

In conclusion, I would like to express my gratitude to my family and friends, whose unwavering support and understanding have been fundamental to my journey through this doctoral programme.

## TABLE OF CONTENTS

ABSTRACT.....	9
INTRODUCTION.....	11
<b>1. Sustainability accounting and sustainable development.....</b>	<b>13</b>
<b>2. The European context: regulatory instruments as fuel for sustainable development.....</b>	<b>14</b>
<i>2.1 The Taxonomy regulation.....</i>	<i>15</i>
<i>2.2 The Sustainable Finance Disclosure Regulation.....</i>	<i>16</i>
<i>2.3 The Corporate Sustainability Reporting Directive.....</i>	<i>17</i>
<i>2.4 The Corporate Sustainability Due Diligence Directive.....</i>	<i>24</i>
<b>3. Uncertainty of the regulatory context: the Omnibus .....</b>	<b>27</b>
<b>FIRST CHAPTER: ARE THE EUROPEAN SUSTAINABILITY REPORTING STANDARDS EFFECTIVE TO FIGHT MODERN SLAVERY RISK?</b>	
Summary.....	34
<b>1.1 Introduction.....</b>	<b>35</b>
<b>1.2 Background and literature review.....</b>	<b>36</b>
<i>1.2.1 Modern slavery: an umbrella term.....</i>	<i>36</i>
<i>1.2.2 How reporting and disclosure on modern slavery can be a driver of social change?.....</i>	<i>37</i>
<b>1.3 Methodology.....</b>	<b>39</b>
<b>1.4 Discussion.....</b>	<b>40</b>
<i>1.4.1 How do the GRI standards and the ESRS raise awareness by addressing modern slavery?.....</i>	<i>40</i>
<i>1.4.2 Are the ESRS enough to guide companies in the fight against modern slavery?.....</i>	<i>43</i>
<b>1.5 Conclusion and future research.....</b>	<b>45</b>
<b>SECOND CHAPTER: ESG Risk Identification and Mitigation Under the SEC Regulation in the Aerospace and Defence Sector</b>	
Summary.....	46
<b>2.1 Introduction.....</b>	<b>47</b>
<b>2.2 Theoretical Background and Context.....</b>	<b>48</b>
<i>2.2.1 From ESG risk management to ESG risk disclosure and vice versa.....</i>	<i>48</i>
<i>2.2.2 The SEC's current and new rules about ESG risk factors and risk mitigation disclosure.....</i>	<i>50</i>
<b>2.3 Research Design.....</b>	<b>51</b>
<i>2.3.1 Why the aerospace and defence sector is worthy of investigation.....</i>	<i>51</i>
<i>2.3.2 The selected companies.....</i>	<i>52</i>
<i>2.3.3 The framework of analysis.....</i>	<i>53</i>
<b>2.4 Findings.....</b>	<b>59</b>

2.4.1 <i>Environmental</i> .....	59
2.4.2 <i>Social</i> .....	60
2.4.3 <i>Governance</i> .....	61
2.5 <b>Concluding remarks and future research</b> .....	62
<b>THIRD CHAPTER: Beyond CSRD Compliance in the Aerospace &amp; Defence Sector: Mapping Organisational Responses and Feasible Transformative Change Trajectories</b>	
Summary.....	65
<b>3.1. Introduction</b> .....	66
<b>3.2 Theoretical framework</b> .....	68
3.2.1 <i>Laughlin organisational change theory</i> .....	68
3.2.2 <i>Oliver’s strategic organisational responses</i> .....	74
3.2.3 <i>The evolution of strategic organisational responses into long-term change models</i> .....	80
<b>3.3 Empirical setting</b> .....	83
3.3.1 <i>The aerospace and defence sector</i> .....	83
3.3.2 <i>The Alpha S.p.a. case as representative of the Italian A&amp;D sector</i> .....	88
<b>3.4 Methodology</b> .....	88
3.4.1 <i>Content analysis</i> .....	89
3.4.2 <i>Semi-structured interviews</i> .....	92
3.4.3 <i>Other sources</i> .....	97
<b>3.5 Findings</b> .....	99
3.5.1 <i>The content analysis</i> .....	99
3.5.1.1 <i>Alpha S.p.a. strategic responses</i> .....	109
3.5.1.2 <i>Alpha’s reorientation towards potential sustainability colonization</i> .....	115
3.5.2 <i>Interviews</i> .....	118
3.5.2.1 <i>Contextual interviews analysis: the transformative potential of the CSRD: between regulatory formalism and organisational learning</i> .....	119
3.5.2.2 <i>Case study interviews</i> .....	132
3.5.2.2.1 <i>Coding case study interviews</i> .....	132
3.5.2.3 <i>Connecting case study interviews with the theoretical framework</i> .....	140
3.5.3 <i>Connecting case study interviews with content analysis</i> .....	148
<b>3.6 Discussion</b> .....	153
<b>3.7 Concluding remarks</b> .....	156
<b>CONCLUSIONS AND FINAL REMARKS</b> .....	158
<b>REFERENCES</b> .....	162
<b>WEBLIOGRAPHY</b> .....	175
<b>APPENDIX 1: Contextual interviews guides</b> .....	178
<b>APPENDIX 2: Case study interviews guides</b> .....	187

## **TABLES, FIGURES, DIAGRAMS AND APPENDIXES**

### **TABLES**

**Table 1.** European Sustainable Finance Strategy and its enforcement

**Table 2.** Comparison of NFRD with CSRD

**Table 3.** Main proposed amendments to the CSRD, the CSDDD and the Taxonomy Regulation

**Table 4.** Shortcomings highlighted in accounting literature

**Table 5.** Sources analyzed

**Table 6.** Strengths and shortcomings of ESRS

**Table 7.** Selected companies

**Table 8.** Analysis framework representation

**Table 9.** Different tracks of organisational change

**Table 10.** Antecedents of strategic responses

**Table 11.** Antecedents of acquiescence

**Table 12.** Antecedents of compromise

**Table 13.** Antecedents of avoidance

**Table 14.** Antecedents of defiance

**Table 15.** Antecedents of manipulation

**Table 16.** Connecting Oliver to Laughlin

**Table 17.** EU Regulations impacting sustainable investors' decisions on the A&D sector

**Table 18.** Content analysis' chosen labels

**Table 19.** Contextual interviews summary table

**Table 20.** Alignment between Alpha S.p.a. units interviewed and content analysis labels

**Table 21.** Interview summary table of Alpha's professionals

**Table 22.** Italian sample antecedents

**Table 23.** Alpha S.p.a. strategic responses to institutional pressures

**Table 24.** Linking Alpha S.p.a. strategic responses to its organisational change models

**Table 25.** Emerging second-order themes

**Table 26.** Emerging aggregate dimensions

**Table 27.** Alpha's evolving strategic response

**Table 28.** Strategic and organisational evolution of Alpha S.p.A.

**Table 29.** Representing emerged coherence between content analysis labels and case study interviews aggregate dimensions

**Table 30.** Comparison of the results of content analysis and case study interviews

### **FIGURES**

**Figure 1.** Timeline of the regulatory evolution towards the CSRD and ESRS publication

**Figure 2.** The structure of the European Sustainability Reporting Standards

**Figure 3.** The modern slavery phenomenon

**Figure 4.** Representation of the linkage between the target 8.7 and the GRI 408 and GRI 409

**Figure 5.** Model of organisations

**Figure 6.** Content analysis' chosen years

**Figure 7.** Alpha S.p.a. organisational change

**Figure 8.** Predicted organisational responses and changes

## **DIAGRAMS**

**Diagram 1.** Number of companies disclosing information about environmental risk

**Diagram 2.** Number of companies disclosing information about social risk

**Diagram 3.** Number of companies disclosing information about governance risk

## **APPENDIXES**

**Appendix 1:** Contextual interviews guides

**Appendix 2:** Case study interviews guides

## LIST OF ACRONYMS

**A&D:** Aerospace and Defence  
**CAGR:** Compound annual growth rate  
**CapEx:** capital expenditure  
**CER:** Corporate environmental responsibility  
**CSDDD:** Corporate Sustainability Due Diligence Directive  
**CSRD:** Corporate Sustainability Reporting Directive  
**CSS:** Consolidated Sustainability Statement  
**CTB:** Climate Transition Benchmarks  
**DNSH:** Do No Significant Harm principle  
**DPs:** Data points  
**DRO:** Defence Readiness Omnibus Package  
**EFRAG:** European Financial Reporting Advisory Group  
**ERM:** Enterprise Risk Management  
**ESAP:** European Single Access Point  
**ESEF:** European Single Electronic Format  
**ESG:** Environmental, social and governance  
**ESRS:** European Sustainability Reporting Standards  
**EU:** European Union  
**GRI:** Global Reporting Initiative  
**IFRS:** International Financial Reporting Standards  
**IIRCF:** International Integrated Reporting Council Framework  
**ILO:** International Labour Organization  
**IOSCO:** International Organization of Securities Commissions  
**IROs:** impacts, risks and opportunities  
**ISAE:** International Standards on Auditing  
**ISSB:** International Sustainability Standards Board  
**KPIs:** Key Performance Indicators  
**NATO:** North Atlantic Treaty Organization  
**NFRD:** Non-Financial Reporting Directive  
**NGOs:** Non-Governmental Organizations  
**OECD:** Organization for economic cooperation and development  
**OpEx:** operating expenditure  
**PAB:** Paris-Aligned Benchmarks  
**PAIs:** Principal Adverse Impacts  
**SASB:** Sustainable Accounting Standards Board  
**SBTi:** Science Based Targets initiative  
**SDGs:** Sustainable Development Goals  
**SEA:** social and environmental accounting  
**SEC:** Securities and Exchange Commission  
**SFDR:** Sustainable Finance Disclosure Regulation  
**SMEs:** Small and medium enterprises  
**TCFD:** Task Force on Climate-related Financial Disclosures  
**UNGC:** United Nations Global Compact  
**U.S.:** United States  
**VSME:** Voluntary standard for non-listed micro-, small- and medium-sized undertakings

## ABSTRACT

The general objective of this dissertation is to deepen the understanding of the extent to which sustainability regulation can operate as a transformative instrument, capable of steering business organisations—whose impacts are salient for sustainable development—towards the implementation of sustainability principles and practices. In doing so, the dissertation also examines the capacity of regulatory instruments to provide a framework for modelling business systems, that is, to configure the organisational processes, routines, controls and decision arenas through which sustainability is identified, managed and rendered decision-relevant. This thesis includes three investigations that explore this question through complementary theoretical and methodological approaches. In particular, each investigation examines, respectively: (i) the potential and limits of the emerging European sustainability reporting architecture to address severe social equity concerns—focusing on modern slavery risk and the interplay between reporting standards and due diligence logics; (ii) the characteristics and limitations of mandatory environmental, social and governance (ESG) risk disclosure as a regulatory transparency device—using the U.S. Securities and Exchange Commission (SEC) regime as an instructive benchmark for understanding what regulation tends to produce at the level of disclosure outputs; and (iii) the organisational responses and change trajectories potentially activated by the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS) in a high-sensitivity sector (Aerospace and Defence sector, A&D)—analysing how a mandatory reporting may trigger internal reconfiguration and whether such responses remain procedural or evolve toward deeper forms of organisational change.

Accordingly, each chapter contains one of these investigations. The first chapter, informed by critical accounting and normativity perspectives, concludes that reporting requirements can raise awareness and structure corporate attention to modern slavery, yet they risk stabilising symbolic compliance unless complemented by robust due diligence obligations and enforcement capacity, as envisaged by the Corporate Sustainability Due Diligence Directive (CSDDD). The second chapter, based on a structured content analysis of mandatory risk disclosures, shows that mandatory ESG risk reporting may become generic, mimetic and liability-shaped, thereby increasing disclosure volume without necessarily generating decision-useful specificity or proactive mitigation commitments. The third chapter, drawing on an integrated framework that combines Oliver’s strategic responses and Laughlin’s models of organisational change, finds that early responses to CSRD/ESRS are hybrid and dynamic—moving from anticipatory to pragmatic acquiescence while coexisting with compromise and manipulation—and that double materiality functions as a key mechanism for structuring internal sensemaking and legitimising sustainability within business functions. However, the case study indicates that, in contexts characterised by strong interpretive schemes and high organisational maturity, the outcome may consolidate as advanced reorientation (morphostatic change) rather than full interpretive transformation (morphogenesis/colonisation).

Overall, this dissertation reflects on the central mechanisms and conditions through which sustainability regulation can (or cannot) become a durable norm of practice and a driver of organisational transformation. Across the three studies, the findings suggest that the

transformative potential of the European regulatory project is simultaneously enabling and fragile: it is enabling insofar as it can configure internal systems—particularly through double materiality and due diligence logics—but fragile insofar as sectoral constraints, organisational ideologies, compliance burden, and institutional uncertainty may redirect regulatory ambition toward procedural compliance rather than substantive sustainability change.

## INTRODUCTION

The overarching aim of this thesis is to examine the efficacy of regulatory instruments to lead business organisations, whose impacts are relevant for sustainable development (Larrinaga et al., 2002; Bebbington et al., 2012; Larrinaga and Bebbington, 2021), towards the implementation of sustainability principles and practices. Additionally, the study seeks to investigate the capacity of regulatory instruments to facilitate the establishment of a framework for modelling business systems (Hopwood, 2009). This research is grounded in the idea that regulation does not become transformative “by default”; rather, its transformative capacity depends on specific contextual and structural elements that enable regulatory demands to be translated into organisational attention, internal processes and decision-making (Luque-Vílchez et al., 2024).

The thesis is situated in the European regulatory and institutional context, where sustainability reporting and due diligence are being reshaped through CSRD, the associated ESRS, and the CSDDD. Taken together, these initiatives aim not only to increase disclosure, but also to influence organisational behaviour by requiring firms to identify, measure, manage and communicate sustainability matters in a structured way. The three core chapters of the thesis develop a single narrative about the opportunities and challenges of this regulatory shift, by examining the same overarching question—regulation’s capacity to drive sustainability-oriented change—from three complementary and connected angles.

Chapter 1, which is initiated with the acknowledgement that accounting has not been systematically and actively considering social equity concerns (Bebbington and Larrinaga, 2014), focuses on the general theme of human rights and, in particular, on the risk of modern slavery (Bales, 2005, 2012; Burritt and Christ, 2023). The investigation in this chapter explores how the new European regulatory framework can function as a tool for raising awareness of this problem and possibly be used to undertake a process of eradicating it. In the architecture of the thesis, this first chapter sets the normative and societal “why” of the research: it clarifies what is at stake when regulation seeks to reorient business conduct toward sustainability and justice, and it provides a cross-cutting reference point (human rights) that is relevant across sectors. This chapter has been published in the book: “Diversity and Equity in Accounting”, SIDREA Series in Accounting and Business Administration.

Chapters 2 and 3 then move from this cross-cutting societal issue to a sectoral setting—A&D—whose sustainability challenges are both particularly complex and under-researched, not least because of the ethical tensions that characterise the relationship between defence and sustainability (Singh et al., 2022). These chapters deepen the thesis’ argument by investigating not only whether regulation produces information (disclosure), but also whether and how that information can become a mechanism for change inside organisations.

Chapter 2 concentrates on the disclosure mechanism itself. It examines the level of disclosure generated by a mandatory regulatory requirement on sustainability and, in particular, on risks related to ESG issues, is analysed. The U.S. context and the SEC’s

regulatory requirements on this issue were investigated, and its limitations were highlighted. The analysis was considered a lesson to be learned, given that this regulation predates the European one, which, although more heterogeneous, also deals with these issues. Conceptually, Chapter 2 therefore bridges the thesis' overarching aim and the subsequent case analysis: it clarifies what regulation can realistically deliver at the level of reporting outputs and highlights the conditions under which disclosure may remain symbolic rather than transformative. This chapter has been published in the book: "Environmental, Social, Governance (ESG)", SIDREA Series in Accounting and Business Administration.

Building on that insight, Chapter 3 shifts from disclosure outputs to organisational responses and change trajectories. It provides an in-depth analysis of the strategic responses of Alpha S.p.a.<sup>1</sup>, a representative actor of the A&D sector in Italy, with the aim of understanding the potential of the new European regulatory requirements on sustainability reporting to activate a process of organisational change that, in more general terms, could generate broader positive impacts at the societal level. This chapter directly addresses the second part of the thesis aim—regulation as a framework for modelling business systems—by examining how reporting requirements can reconfigure organisational processes (e.g., governance, risk management, controls, performance measurement and strategic priorities), and whether these internal reconfigurations can plausibly generate broader positive impacts beyond the firm. In the thesis' overall narrative, Chapter 3 operationalises the central claim: regulation matters not only because it mandates transparency, but because—under enabling conditions—it may contribute to feasible, transformative organisational change pathways. This chapter has been accepted for presentation at the 12th Emerging Scholars Colloquium, which is being held at St Andrews University as part of the 35th International Congress on Social and Environmental Accounting Research (CSEAR UK) and it is planned to be submitted to an international journal in the field of accounting in 2026.

Finally, the conclusions and final remarks integrate the findings across the three studies to assess what they collectively imply about the efficacy and fragility of the European regulatory project and assess the potential repercussions of regulatory uncertainty, which has been precipitated by demands for simplification.

---

<sup>1</sup> The original name of the company has been anonymized.

## 1. Sustainability accounting and sustainable development

The issue of sustainability is of paramount importance, as we find ourselves at the threshold of a new geological era, the Anthropocene (Davies, 2016; Bebbington et al., 2020). The latter definition is rooted in the prevalent concerns regarding the state of the environment, which have led to the adoption of sustainable development as a means of articulating concerns about the socio-economic and environmental characteristics of human impact (Bebbington and Larrinaga, 2014; Bebbington et al., 2020). The human species, in conjunction with organisations and society at large, has been identified as the primary agent of global change on the planet (Bebbington et al., 2020; Steffen et al., 2011). This has led to the designation of a new geological era, despite the scientific debate surrounding the feasibility of such an assessment in real time with a precision of a few decades (Bebbington et al., 2020). In consideration of the mediating role attributed to society, it is imperative to persist in the process of rethinking social sciences such as accounting, thereby incorporating the Anthropocene within the constraints imposed by planetary boundaries, and ensuring the preservation of a safe operating space for humanity (Rockström et al., 2009). This consideration enables conceptualising accounting as a conduit for society to fulfil its mediating function, acknowledging the inherent influence of accounting itself, which is not neutral and has the capacity to impact society (Hopwood and Miller, 1994).

The concept of accounting to which the study refers is that of sustainability accounting, which is not limited to having an external purpose, but rather pursues an internal one aimed at guaranteeing the achievement of the strategic objective of sustainable development (Gray, 2002; Bebbington and Larrinaga, 2014). In considering this objective, however, it is necessary to highlight the problems involved in pursuing sustainable development. These problems are linked to the complexity of the issues and stakeholders involved (environment, future and current generations), the difficulty of translating ecological limits and social justice standards into policies and decision-making processes, and more specifically, sustainable development at the organisational level (Bebbington and Larrinaga, 2014; Gray, 2010). As Bebbington and Larrinaga (2014) have emphasised, to surmount the pervasive pessimism surrounding the capacity of accounting to influence the overall level of sustainability, novel methodologies are required to produce knowledge that integrates an approach based on sustainability science and is capable of reinvigorating research in the field of accounting and sustainable development. In conjunction with this approach, the establishment of a shared political vision for this concept, as articulated within the 2030 United Nations Agenda for Sustainable Development<sup>2</sup> and its associated Sustainable Development Goals (SDGs)<sup>3</sup>, has proved to be significant in catalysing attention on sustainable development. The latter, whilst not perfect, as underlined by Bebbington et al. (2017), have considerable potential as a radical framework for sustainability accounting and accountability, by offering a way round the inertia caused by claims of the lack of a generally accepted conceptually coherent definition of sustainable development.

---

<sup>2</sup> <http://www.un.org/sustainabledevelopment/> last access 16/10/2025.

<sup>3</sup> <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> last access 16/10/2025.

## 2. The European context: regulatory instruments as fuel for sustainable development

The definition of sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs, which originated in the Brundtland report (UNWCED, 1987), is the most widely used. As Bebbington and Larrinaga (2014, p. 388) observe, “the radical nature <of this definition> can only be appreciated in the context of the time it was first promulgated”. However, it should be noted that the definition has been referred to in all the documents and global conferences that led, in September 2015, to the adoption of the United Nations 2030 Agenda for Sustainable Development, the result of lengthy political negotiations. This definition of sustainable development has also begun to take root in European policies aimed at improving European competitiveness by investing in sustainable growth and stimulating action by governments, institutions and citizens. The objective of this is to gain a competitive advantage over other global institutions as leaders in sustainability. At the European level, the Green Deal (European Commission, 2025a<sup>4</sup>) was initiated in 2019. This initiative comprises a series of strategic measures that have guided the European Union towards a green transition, with the overarching objective of achieving climate neutrality by the year 2050. This initiative represents the European Union's (EU) contribution to the Paris Agreement (European Consilium, 2025<sup>5</sup>), which established the objective of maintaining the increase in global temperatures to within +1.5°C above pre-industrial levels. The aim of this European package is to support the transformation of the EU into a fair and prosperous society with a modern and competitive economy. To achieve this ambitious goal, the Council and the European Parliament, as co-legislators, have adopted legislation that has transformed the vision of the strategy into legislative acts and rules applied in all EU Member States. As outlined in table 1 below, to support the achievement of the European Green Deal objectives, the European Union has introduced a comprehensive Sustainable Finance Strategy (European Commission, 2020<sup>6</sup>) accompanied by a set of regulatory measures. These include the Taxonomy Regulation (EU 2020/852<sup>7</sup>), which establishes a classification system for environmentally sustainable economic activities; the Sustainable Finance Disclosure Regulation (SFDR, EU 2019/2088<sup>8</sup>), which mandates sustainability-related transparency within the financial services sector; and the CSRD (EU 2022/2464<sup>9</sup>), which significantly expands and standardizes corporate sustainability reporting obligations. Moreover, the EU has strengthened enforcement mechanisms through the CSDDD (EU 2024/1760), which introduces mandatory human rights and environmental due diligence requirements across global chains of activities.

---

<sup>4</sup>[https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/story-von-der-leyen-commission/european-green-deal\\_en?prefLang=it](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/story-von-der-leyen-commission/european-green-deal_en?prefLang=it) last access 13/12/2025

<sup>5</sup> <https://www.consilium.europa.eu/it/policies/european-green-deal/#what> last access 13/12/2025

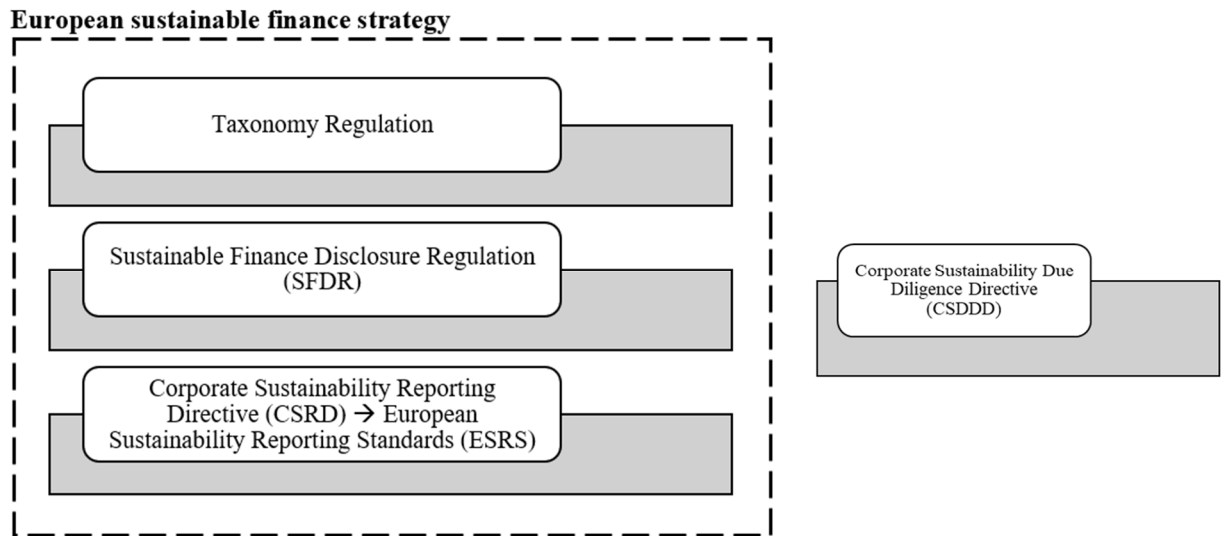
<sup>6</sup>[https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth\\_en](https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth_en) last access 13/12/2025

<sup>7</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852>

<sup>8</sup> <https://eur-lex.europa.eu/eli/reg/2019/2088/oj/eng>

<sup>9</sup> <https://eur-lex.europa.eu/eli/dir/2022/2464/oj/eng>

**Table 1.** European Sustainable Finance Strategy and its enforcement



Source: own elaboration

To elaborate, this strategy establishes an ecosystem that is designed to direct capital, business conduct, and corporate governance towards sustainability, thereby supporting the long-term objectives of the European Green Deal. This is achieved by aligning private-sector incentives with environmental and social objectives (García-Torea et al., 2024). The following sections describe the regulatory pillars of the sustainable finance strategy and its enforcement.

### 2.1 The Taxonomy regulation

The definition of sustainable is provided by the Taxonomy Regulation. In the absence of such a definition, sustainability claims may become vague and/or misleading. The Regulation under scrutiny establishes a regulatory framework with the aim of facilitating sustainable investments. Its central objective is to redirect capital flows towards sustainable investments by establishing a unified and technically robust classification system that defines what constitutes an environmentally sustainable economic activity. The definition of an activity as sustainable is dependent upon its substantial contribution to one of six established environmental objectives. These objectives include, for example, climate change mitigation or adaptation, the transition to a circular economy and the protection of biodiversity. However, this contribution must be without significant harm to any other objectives (Do No Significant Harm principle, DNSH). Furthermore, the activity must be carried out in accordance with minimum safeguards, which include the Organization for economic cooperation and development (OECD) guidelines and International Labour Organization (ILO) principles. The harmonisation of these criteria at European Union (EU) level is considered to be of crucial importance in order to remove barriers to the functioning of the internal market, to prevent fragmentation resulting from divergent national classification schemes, and to strengthen investor confidence, in particular by addressing concerns about greenwashing. The provisions have been established for application by financial market participants offering financial products

and by large companies subject to the obligation to publish a non-financial statement. The latter imposes detailed transparency requirements on the extent to which their activities are associated with environmentally sustainable economic activities. Article 8 of this Regulation is pivotal in ensuring such transparency, as it imposes specific disclosure requirements on companies that are already obliged to publish a sustainability statement or a consolidated sustainability statement. It is incumbent upon these companies to incorporate detailed information into their statements regarding the manner and extent to which their activities are associated with economically sustainable activities, as defined by the criteria of Taxonomy. It is imperative to note that non-financial companies are obligated to disclose the proportion of their turnover, capital expenditure (CapEx) and operating expenditure (OpEx) that is associated with environmentally sustainable economic activities. This information is of relevance to investors, as it enables them to identify economic operators engaged in sustainable activities and evaluate the environmental sustainability of the products and services offered.

## ***2.2 The Sustainable Finance Disclosure Regulation***

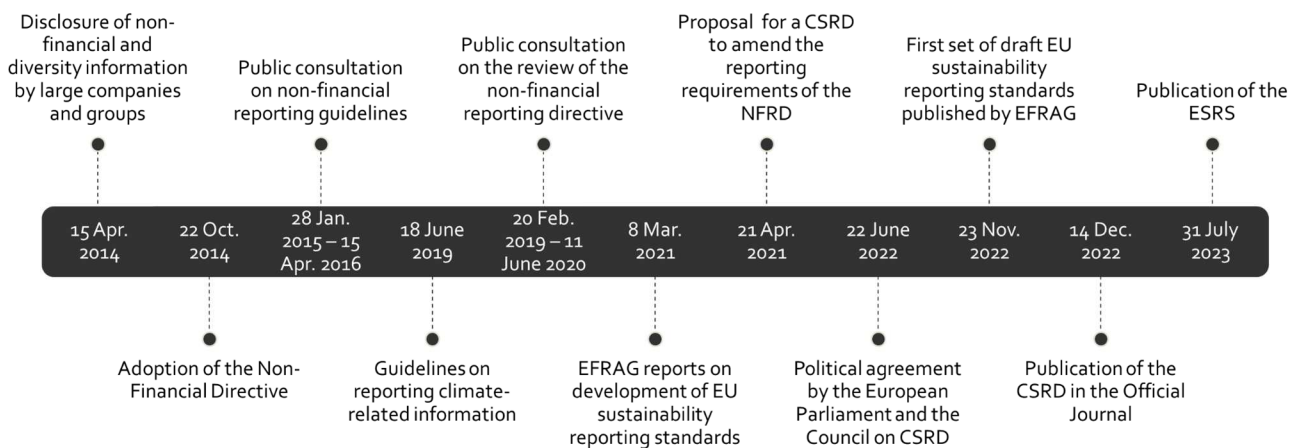
The SFDR mandates that financial market participants and financial advisers ensure transparency regarding sustainability risks, and that they disclose whether their products are sustainable (and the manner in which they are so). The overarching objective of this Regulation is therefore twofold: firstly, to require the integration and disclosure of sustainability risks (i.e. an ESG event or condition that could have a negative impact on the assessment of the investment) in decision-making processes, and secondly, to ensure the provision of information on the sustainability of the financial products offered. This legislation introduces a categorisation of financial instruments based on their level of sustainability ambition. The classification is divided into three levels of disclosure. Article 6 requires products to include in their pre-contractual disclosures a description of how sustainability risks are integrated into investment decisions, establishing the principle of “comply or explain” when such risks are considered irrelevant. “Light Green” products (under Article 8) actively promote environmental or social characteristics in addition to considering these risks. The disclosures specify how these characteristics are met provided that investee companies follow good governance practices. Finally, “Dark Green” products (under Article 9) explicitly aim to achieve sustainable investment. This type of investment is defined as contributing to an environmental or social objective (for example, measured by indicators on resource use or combating inequality), while also complying with the DNSH principle and the requirement of good governance for the companies being invested in. The efficacy of these disclosures is reinforced by the integration of the SFDR with the Taxonomy Regulation, which provides financial market participants with a unified classification system, enabling the quantification and disclosure of the environmental sustainability of their financial products. The SFDR stipulates the necessity for ongoing transparency at entity level, mandating that regulated entities disseminate information on their websites, including their sustainability risk management policies and, for larger operators, their consideration of principal adverse impacts on sustainability (PAIs), in accordance with the “comply or explain” principle. Ultimately, the objective of the Regulation is to guarantee that all marketing

communications are consistent and do not contain any contradictory information in relation to the information provided.

### 2.3 The Corporate Sustainability Reporting Directive

The CSRD ensures that companies, not solely financial actors, are obligated to disclose comprehensive sustainability information, encompassing the sustainability of their business, the impacts they exert, their transition strategies, and their management of risks and opportunities. As depicted in the following figure 1, the present directive constitutes the outcome of a protracted process of normative development.

**Figure 1.** Timeline of the regulatory evolution towards the CSRD and ESRS publication



Source: own elaboration

As demonstrated in Table 2 below, the CSRD introduced significant regulatory changes, repealing and expanding the previous Directive 2014/95/EU (Non-Financial Reporting Directive, NFRD) in order to overcome the problems of effectiveness, comparability and reliability encountered with the NFRD, which failed to bridge the information gap between the needs of users (investors, civil society) and the information provided by companies.

**Table 2.** Comparison of NFRD with CSRD

<b>Matter of difference</b>	<b>NFRD</b>	<b>CSRD</b>
<b>Renaming</b>	It focused on the disclosure of <b>non-financial information</b> ( <i>non-financial reporting</i> ).	It officially replaces the term “non-financial” with “ <b>sustainability</b> ” ( <i>sustainability reporting</i> ).
<b>Scope</b>	This applied only to large public-interest entities (PIEs) that exceed at least two of the following thresholds: <ul style="list-style-type: none"> <li>• an average number of employees exceeding <b>500</b> during the financial year in question;</li> <li>• consolidated balance sheet assets exceeding €20 million;</li> <li>• or net revenues exceeding €40 million.</li> </ul>	This applies: <ul style="list-style-type: none"> <li>• From 1 January 2025 (with reporting on 2025 data in 2026), to all unlisted large companies and holding companies of large groups that exceed at least two of the following size criteria on their balance sheet date: average number of employees exceeding <b>250</b>; total balance sheet exceeding €20 million; net revenues from sales and services exceeding €40 million.</li> <li>• From 1 January 2026 (with reporting in 2027 on 2026 data): to small and medium enterprises (SMEs) listed on regulated markets in the EU, except for micro-enterprises and to small, non-complex credit institutions and captive insurance and reinsurance companies.</li> <li>• From 1 January 2028 (with reporting on 2028 data starting in 2029): parent companies based in non-EU countries that carry out significant activities in the EU and have had net revenues exceeding €150 million in the EU for each of the last two consecutive financial years, as well as having at least one subsidiary that can be considered a large enterprise, a listed SME, or a branch with net revenues from sales and services exceeding €40 million.</li> </ul>
<b>Reporting placement</b>	The non-financial statement was required to be <b>included in the management report</b> ; however, Member States were permitted to publish it in a <b>separate report</b> .	Sustainability information must be published in a clearly identifiable, dedicated section of the management report. The option of a <b>separate report</b> is <b>no longer permitted</b> , thereby ensuring integration and equal status with financial information.

<b>Double Materiality principle</b>	Disclosure of information was required in order to understand the development, position and impact of the company's activities relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters.	The principle of <b>double materiality</b> is clarified and made mandatory: companies must report on the actual and potential impacts of their activities on people and the environment (impact materiality), as well as on the effect of sustainability issues on the company's development, performance and position (financial materiality).
<b>Reporting standards</b>	It allowed companies to rely on <b>voluntary national or international frameworks</b> , such as the Global Reporting Initiative (GRI). The Commission provided non-binding guidelines.	The <b>ESRS<sup>10</sup></b> are now <b>mandatory</b> . These standards are essential for ensuring comparability, relevance and verifiability of information.
<b>Value Chain</b>	Consideration of the <b>supply and subcontracting chain</b> was <b>only</b> required <b>where relevant and proportionate</b> to identify and mitigate adverse impacts.	Disclosure of the <b>material, actual or potential negative impacts relating to the entire value</b> chain of the company is required, including products, services and commercial relationships. Companies that are unable to obtain all the necessary information from the value chain are permitted a three-year phase-in period, provided that they explain their efforts and future plans.
<b>Nature and timing of information</b>	It did <b>not strictly specify the timeframe or nature of the information</b> required, only asking for details on the current and foreseeable environmental impacts.	The <b>information</b> must be both <b>forward-looking and retrospective</b> , as well as <b>qualitative and quantitative</b> . It also requires a description of transition plans (including financial and investment plans) which are aimed at ensuring that the business model is compatible with the goal of limiting global warming to 1.5°C and achieving climate neutrality by 2050.

<sup>10</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=intcom:C%282023%295303>

<b>Digitisation of reporting</b>	<b>No digitisation</b> or electronic tagging requirements.	It is mandatory to <b>digitise the information</b> in the sustainability report using XHTML and the XBRL markup language. This implies that a taxonomy of sustainability information with related tags must be created. All digitised sustainability information must be published in a single European Single Electronic Format (ESEF) and submitted to the European Single Access Point (ESAP <sup>11</sup> ).
<b>Intangibles</b>	The <b>focus</b> was primarily on risks and impacts, rather than <b>on intangible assets not recognised</b> in the balance sheet.	It introduces a specific requirement for large companies and listed SMEs to <b>report on key intangible resources</b> and how the business model depends on them and derives value creation from them.
<b>Auditing and assurance</b>	Statutory auditors and audit firms should <b>only verify that a non-financial statement or separate report has been provided</b> . Additionally, Member States had the option of requiring an independent assurance services provider to verify the information included in the non-financial statement or the separate report.	The statutory auditor or audit firm is obliged to express an opinion on whether sustainability reporting complies with Union requirements (ESRS and Taxonomy), based on a <b>limited assurance engagement</b> . The transition to reasonable assurance is gradual and planned for 2028, once the Commission has adopted the delegated assurance standards. This will allow Member States to accredit independent assurance service providers (in addition to statutory auditors) to provide assurance.

Source: own elaboration

This regulatory revolution is rooted in a concerted effort to effect substantial change, as evidenced by the emergence of sustainability reporting. However, the impetus for this change stems from the European regulator's aspiration to exert a more profound influence on corporate values. The disclosure tool is being used as a means to this end, with the broader objective of impacting management and strategic tools and processes, thereby supporting sustainable development more broadly.

The intention of the legislator is evident through a direct comparison with the repealed NFRD and a consideration of the new features introduced by the CSRD. In addition to a substantial expansion in the scope of application of the preceding directive, particularly with regard to large unlisted companies that, until the repeal of the NFRD, had primarily

---

<sup>11</sup> The ESAP is expected to be established by 10 July 2027, while corporate sustainability information, subject to CSRD provisions, will be available through it from 10 January 2028.

dealt with non-financial information on a voluntary basis, it has also intervened on the nature of the information required. This information must be both qualitative and quantitative, and both historical in terms of sustainability performance achieved up to the end of the financial year, and forward-looking in terms of plans to improve sustainability performance and objectives or targets to be achieved. The CSRD requirements have, as a natural consequence, resulted in an increased emphasis on the significance of internal control systems with regard to sustainability information. Indeed, in order for companies to prepare their sustainability reports in an effective manner, it is essential to implement ad hoc tools that allow sustainability information to be obtained in a more agile and standardised manner. In light of this, companies can identify a significant ally in the technologies of the fourth industrial revolution (Industry 4.0, based on artificial intelligence, big data, blockchain, etc.) for effective management. The disclosure requirement is expanded to encompass a request that extends to the entire value chain, thereby including the full range of activities, resources and relationships connected to the company's business model and its environment. This is not limited to direct contractual relationships. While this latter aspect is crucial for a comprehensive view of sustainability impact, it introduces a significant degree of complexity in the implementation of disclosure. This complexity may be linked to difficulties in obtaining information in the event of a discrepancy between the internal control tools of the company at the head of the value chain and the companies, including SMEs or micro-enterprises, belonging to the latter. It may also be linked to a form of difficulty in finding information in the case of an extended value chain that spans different geographical areas, and possibly also to the risk of unintended consequences on companies that, although exempt from the regulatory obligations of the CSRD, are burdened by onerous (in terms of time and cost) information requests from the companies of which they are part of the value chain. Failure to comply with the information requests may result in expulsion from the latter. In order to address these critical issues, the directive stipulates a three-year phase-in period. In addition, the European Financial Reporting Advisory Group (EFRAG) has developed implementation guidance on the value chain, emphasising the significance of double materiality in defining the impacts, risks and opportunities (IROs) to be reported in relation to the value chain. The EFRAG further states that if an entity is unable to collect primary information from actors in its value chain for the materiality assessment or to prepare its disclosures of material IROs, it shall estimate the missing information using all reasonable and supportable information available without undue cost and effort, including proxies and sector data, and other information from indirect sources (EFRAG, 2024)<sup>12</sup>.

It is evident that the CSRD has brought about a paradigm shift in the field, most notably through the introduction of the principle of double materiality, the broadening of the NFRD scope, and the introduction of the ESRS (discussed in more detail subsequently). To elaborate further, the principle of double materiality signifies that the sustainability information disclosed by a company must substantiate two interconnected perspectives:

---

<sup>12</sup>[https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFrag%20IG%202024%20Value%20Chain\\_final.pdf](https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFrag%20IG%202024%20Value%20Chain_final.pdf) (last access 11/12/2025)

- Financial Materiality (“outside-in” perspective), which pertains to the manner in which sustainability issues impact a company's performance, outcomes, and financial condition. This notion incorporates both the potential risks and opportunities that may arise from such concerns. This encompasses, for instance, the potential repercussions on the company's valuation, cash flows, access to financial resources, and the cost of capital.
- Impact Materiality (an “inside-out” perspective) concerns the impact of the company on people and the environment (e.g. greenhouse gas emissions, working conditions in the value chain, water consumption, impact on biodiversity). The objective of this perspective is to comprehend the company's contribution to sustainable development.

This theoretical approach implies a radical paradigm shift, considering the concept of materiality not only from a “technical accounting” perspective, but also in a broader “socio-economic and political” dimension. Consequently, it can be considered the medium through which the requisite information for reporting is filtered. The radical nature of this change gives rise to several significant challenges relating to the adoption of double materiality in sustainability reporting. As highlighted by Michelon et al. (2024), these challenges can be divided into three interconnected categories: technical, cultural and institutional.

The technical challenges are primarily associated with the practical difficulties involved in assessment and measurement, including the determination of materiality thresholds for environmental and social impacts, the integration of different time horizons, and the identification and representation of stakeholders. Companies are concerned that the stakeholders consulted may lack the necessary knowledge or experience to assess the materiality of certain issues, and that a lack of active involvement hinders the identification of key social and environmental impacts.

Cultural challenges pertain to the organisational structure, wherein sustainability concerns are not perceived as being central to the company's core business. This challenge is exacerbated by the tendency for reporting processes (financial and sustainability) to operate in silos and in a disjointed manner, which can result in a lack of coordination, even when it comes to disclosing information.

Finally, institutional challenges arise from the rapidly evolving regulatory and standard-setting environment. The primary challenge lies in the fragmentation of reporting standards, which obliges companies, particularly multinational enterprises, to reconcile or navigate guidelines from multiple sources (including the GRI, the International Financial Reporting Standards (IFRS) S1 and S2<sup>13</sup> and ESRS). This scenario of multiple standards can be perceived as a burden and a complication for reporting practices, despite EFRAG's intense activity in developing standards and guidelines that are characterised by a high level of interoperability with other international standards, including through forms of collaboration with other international standard setters.<sup>14</sup>

---

<sup>13</sup> Sustainability standards developed by the International Sustainability Standards Board (ISSB) of the IFRS Foundation.

<sup>14</sup> For further information see: <https://www.efrag.org/en/sustainability-reporting/esrs-workstreams/interoperability>.

To summarise, it is evident that the implementation of the principle of double materiality inevitably poses challenges, particularly when considering companies with a low level of organisational maturity. These difficulties are associated, in practical terms, with the challenges enumerated above, but are more profoundly rooted in the very nature of the principle of double materiality itself. As emphasised by Kapplmüller et al. (2025), the principle of double materiality is a dynamic process of organisational change, which, by its very nature, cannot be constrained within a technical and static compliance perspective. This viewpoint is also reinforced by EFRAG’s implementation guidance on materiality assessment, which states:

*“ESRS do not mandate how the materiality assessment process shall be conducted or designed by organizations. This is because no one process would suit all types of economic activities, organizational structures, locations of operations or upstream and downstream value chains of all organizations applying ESRS”* (EFRAG, 2024a, p.19<sup>15</sup>)

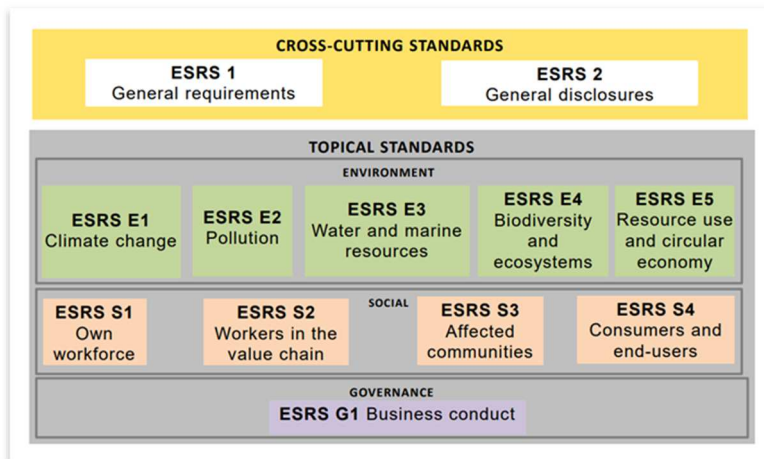
It is therefore imperative that adequate support is provided to companies, enabling them to prepare their sustainability reports properly, with a view to ensuring connectivity between sustainability and financial information, guaranteed by the consistent application of the principle of double materiality.

Alongside the introduction of the principle of double materiality, another significant change introduced by the CSRD was the introduction of mandatory technical standards for sustainability reporting, namely the ESRS, developed under a European mandate by EFRAG and then officially approved by the European Commission. It is evident that these standards, in conjunction with the implementation guidance which has also been developed by EFRAG, serve as the definitive reference point for the preparation and publication of sustainability reports that are in accordance with the regulatory requirements of the CSRD. The ESRS are designed to ensure the harmonised reporting of sustainability across the Union and their fundamental aspect is the implementation of the double materiality assessment, which serves as a crucial element in decision-making processes concerning the impacts, risks, and opportunities addressed by the reporting. The ESRS is structured into categories as illustrated in Figure 2 below. The first category is cross-cutting standards, which are transversal and establish the basic principles and requirements that topical standards must integrate. This ensures that specific disclosures are aligned with the general reporting framework. The second category is topical standards divided by ESG themes and applicable to all sectors. Plans were in place to develop a third category of specific standards, namely sectoral standards. These would be particularly relevant for sectors with high risks or high impact on the environment, human rights and governance.

---

<sup>15</sup>[https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment\\_final.pdf](https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment_final.pdf) (last access 11/12/2025)

**Figure 2.** The structure of the European Sustainability Reporting Standards



Source: EFRAG website

On a residual basis, companies are required to provide entity-specific information where they identify material issues in order to provide a complete and detailed representation of sustainability impacts, risks and opportunities not sufficiently covered by the rest of the standards.

Moreover, in order to ensure consistency and comparability of disclosures, each topical standard is structured around four key reporting areas. The areas in question are as follows: Governance (GOV) encompasses the processes and controls employed to monitor and oversee impacts, risks and opportunities (IROs). Strategy (SBM) delineates the manner in which the company's business model and strategy interact with its material IROs. Impact, Risk and Opportunity Management is concerned with the processes of identifying and assessing the materiality of IROs and managing them through policies and actions. Metrics and Targets (MT) pertain to the company's performance, including its targets and metrics used to measure progress.

Ultimately, the CSRD and ESRS form the backbone of the new European Union regulatory framework, which is designed to ensure harmonised, comparable and reliable sustainability reporting. The adoption of common standards was deemed necessary to overcome the limited comparability and unreliability found under the previous regime (NFRD). The fundamental principle that guides this new regulatory framework is double materiality, which has been designed to meet the information needs of a wide range of users, including investors who necessitate understanding sustainability risks and opportunities, and civil society actors who wish to monitor corporate impact.

#### ***2.4 The Corporate Sustainability Due Diligence Directive***

Finally, the CSDDD (EU 2024/1760<sup>16</sup>) goes a step further: it doesn't just ask for disclosure, but imposes legal due diligence obligations on companies. This Directive was introduced on 25 July 2024, thereby establishing obligations for large companies to ensure that their conduct contributes to sustainable development. This is to be achieved

<sup>16</sup> <https://eur-lex.europa.eu/eli/dir/2024/1760/oj/eng>

by the identification, prevention, mitigation and elimination of actual or potential negative impacts on human rights and the environment within the company's operations, subsidiaries and along with its chain of activities. The latter includes the activities of a company's downstream business partners related to the distribution, transport and storage of the product, where the business partners carry out these activities for or on behalf of the company. The Directive does not cover the disposal of the product. The scope includes EU companies with more than 1.000 employees and a worldwide net turnover exceeding EUR 450.000.000, as well as companies from third countries that generate significant net turnover (over EUR 450.000.000) in the Union and companies operating through franchising or licensing models in the Union, if the license fees exceed EUR 22.5 million and the worldwide net turnover exceeds EUR 80 million.

The due diligence process is structured in six key stages: integration of due diligence into policies and management systems; identification and assessment of adverse human rights and environmental impacts; prevention, cessation, or minimisation of actual and potential adverse impacts; monitoring and evaluation of the effectiveness of measures; and communication and remediation. To elaborate further, the Directive stipulates that companies are obligated to implement the requisite measures to identify, prevent, terminate, minimise and remedy adverse impacts. Furthermore, they are required to engage in a meaningful manner with relevant stakeholders. Appropriate measures are defined as those that are likely to achieve the due diligence objectives, address the adverse impacts effectively and in a manner commensurate with the degree of severity and the likelihood of the impacts. These measures are also to be reasonably available to the company, considering the specific circumstances of the case, i.e. the nature and extent of the adverse impacts and relevant risk factors. In instances where pertinent information is not reasonably available due to barriers, companies are expected to provide an explanation and undertake the necessary steps to obtain it in a timely manner. Furthermore, CSDDD requires companies to integrate due diligence into all relevant policies and risk management systems and to have a due diligence policy that ensures risk-based due diligence. The development of this plan will be conducted in consultation with the company's employees and representatives, and it is expected to include the following:

- A description of the company's long-term approach to due diligence.
- A code of conduct with rules and principles for the company and its subsidiaries, and business partners.
- A description of processes to integrate and implement due diligence, including compliance verification and extension to business partners.

Additionally, companies have the opportunity to share resources and information both within their groups and with other legal entities, thereby enhancing the effectiveness of due diligence processes and reducing the associated workload. Finally, companies will update their due diligence policies without undue delay following significant changes and review them at least every 24 months, considering any identified adverse impacts and appropriate actions. Companies falling within the scope of the CSDDD are subject to a disclosure obligation, which requires them to publish an annual statement on their website, unless they are already subject to the sustainability reporting requirements of the

CSRD. In order to guarantee the implementation and efficacy of the CSDDD, Member States are obligated to appoint one or more National Supervisory Authorities. These authorities are charged with the responsibility of overseeing the adherence to due diligence obligations, with a particular emphasis on the supervision of the adoption and design of the transition plan for climate change mitigation. These authorities, which are required to be both legally and functionally independent, are empowered to initiate investigations (either ex officio or following substantiated concerns), order companies to cease infringements or refrain from repeating them and impose administrative penalties. Finally, Member States are obliged to establish administrative sanctions that are effective, proportionate and dissuasive, including financial penalties based on the company's global net turnover, with a maximum limit of no less than 5% of that turnover, as well as a civil liability regime that allows victims to seek full compensation for the damage suffered, provided that the company has negligently or intentionally failed to comply with its due diligence obligations.

As outlined in the Directive's description, it can be regarded as a means of enforcing the European sustainable finance strategy. This is primarily since the CSDDD imposes obligations on companies to take action and strengthens accountability and transparency mechanisms at the European level. Consequently, companies are required to adopt and implement suitable measures to carry out due diligence on actual or potential human rights and environmental impacts in their chain of activities. The overarching objective of this requirement is to contribute to the transition to a sustainable economy. Moreover, the Directive serves to reinforce and expand the disclosure requirements established by the CSRD and ESRS, obliging companies to undertake effective due diligence on human rights and the environment, thereby reinforcing their obligations to ensure corporate disclosure on the integration of due diligence in a context of double materiality. This demonstrates how the CSDDD uses the CSRD framework as a vehicle for communicating due diligence, without however ignoring the discrepancy between the CSDDD's due diligence requirement, which concerns only a company's chain of activities, and the broader concept of the value chain included in the CSRD's requirements. Furthermore, the CSDDD introduces a system of supervision and accountability that endows due diligence obligations with significant legal force.

In conclusion, the interdependence between European sustainability regulations (CSRD, ESRS, Taxonomy, SFDR and CSDDD) establishes a comprehensive pan-European legal framework that addresses both market expectations and corporate conduct obligations, with the ultimate goal of integrating sustainability into the heart of financial and economic decisions. The CSRD is pivotal to this pan-European legal framework. It is grounded in the principle of double materiality and obliges large companies to provide comprehensive reporting on their sustainability impacts, risks and opportunities. It is imperative that this reporting is conducted in accordance with the ESRS, which directly incorporate the disclosure requirements for aligning economic activities with the Taxonomy Regulation. In terms of financial aspects, the SFDR establishes a requirement for information by mandating that financial operators disclose their approach to managing sustainability risks and consider PAIs, utilising data provided by companies in accordance with the CSRD and the Taxonomy. Finally, the CSDDD serves as an enforcement mechanism, introducing a general obligation for large companies to proactively implement

environmental and human rights due diligence throughout their chain of activities. This process is closely aligned with the minimum governance requirements outlined in Taxonomy and is mandatory for disclosure through CSRD reporting.

### **3. Uncertainty of the regulatory context: the Omnibus**

The European Commission has presented the Omnibus proposals, a comprehensive set of legislative proposals that aim to balance the EU's sustainable transition goals with the ultimate goal of strengthening the competitiveness of the European capital market (European Commission, 2025b<sup>17</sup>). This process has been undertaken by simplifying and streamlining the current regulatory framework relating to sustainability and the disclosure of relevant information, with a view to significantly reducing the administrative burden on companies operating in the EU market.

The impetus for this simplification process is rooted not only in the shifting geopolitical landscape, but chiefly in the novel strategic plan articulated at the European level, namely the “Competitive Compass” (European Commission, 2025c<sup>18</sup>), a strategy formulated on the basis of an analysis of Mario Draghi's report on the future of European competitiveness<sup>19</sup>. The latter establishes that Europe is facing an existential challenge and must grow and become more productive in order to continue to guarantee its fundamental values, including prosperity, equity and freedom in a sustainable environment. It is evident that the rate of economic growth in the European Union has been consistently lower than that of the United States (U.S.) for the past two decades. This discrepancy can be primarily attributed to a more significant deceleration in productivity growth within Europe. The EU has not fully participated in the digital revolution, resulting in its current position of weakness in emerging technologies. The contemporary competitive landscape for Europe is characterised by three significant transformations: the innovation gap, decarbonisation and competitiveness, and defence and dependencies. As Mario Draghi's report (2025) asserts, Europe is characterised by a static industrial structure, with a paucity of new companies capable of developing innovative growth engines. The ecological transition, while representing an opportunity for economic growth, is confronted with significant challenges posed by intensified competition from China in pivotal sectors such as clean technology and electric vehicles. Additionally, the deterioration in global politics has transformed dependencies into vulnerabilities. Specifically, a number of key internal barriers to Europe's strategic success have been identified. Despite the EU's shared objectives, it is failing to establish explicit priorities, resulting in the imposition of onerous regulatory burdens, particularly for SMEs and digital companies. The allocation of collective expenditure is disseminated across a multitude of national and EU instruments, impeding the attainment of the requisite scale necessary for substantial innovation or defence projects. Moreover, the decision-making process is characterised by delays and fragmentation, thereby diminishing the EU's capacity to implement integrated strategies, akin to those adopted by China and the U.S.

---

<sup>17</sup>[https://commission.europa.eu/law/law-making-process/better-regulation/simplification-and-implementation/simplification\\_en?utm](https://commission.europa.eu/law/law-making-process/better-regulation/simplification-and-implementation/simplification_en?utm)

<sup>18</sup> [https://commission.europa.eu/topics/competitiveness/competitiveness-compass\\_en](https://commission.europa.eu/topics/competitiveness/competitiveness-compass_en)

<sup>19</sup> [https://commission.europa.eu/topics/competitiveness/draghi-report\\_en](https://commission.europa.eu/topics/competitiveness/draghi-report_en)

Following the identification of the transformations that define the competitive landscape and the internal barriers, the report proposes a comprehensive action plan. This plan is based on priority areas and implementation pillars. The report under discussion here outlines the importance and urgency of closing the innovation gap, developing a joint decarbonisation and competitiveness plan, and reducing dependencies. It also identifies the need for structural changes in the way the EU operates and finances itself, and therefore calls for increased investment funding and governance reform, accompanied by regulatory simplification.

The Omnibus I package<sup>20</sup> forms part of this regulatory simplification process, with the aim of recalibrating the regulatory framework for sustainability in the EU. On 26 February 2025, the European Commission adopted the proposal “COM (2025) 81”<sup>21</sup> for a directive amending the CSRD, the CSDDD and the Taxonomy Regulation as part of this package. The proposal is currently subject to negotiation under the ordinary legislative procedure between the European Parliament and the Council of the EU and envisages substantial changes to the scope and content of the EU sustainability framework. The main amendments under consideration are summarised in Table 3, which reflects the content of the Council’s negotiating mandate 2025/0045(COD). Compared to the Commission’s proposal, the Council’s position adopts a more restrictive approach, particularly with regard to scope and compliance obligations.

**Table 3.** Main proposed amendments to the CSRD, the CSDDD and the Taxonomy Regulation.

<b>CSRD</b>	<p><b>Reduction in scope</b></p> <ul style="list-style-type: none"> <li>• Large undertakings that have more than 1.000 employees and a turnover above EUR 450 million</li> <li>• Listed SMEs and large companies with fewer than 1.000 employees are excluded from the mandatory reporting requirement.</li> <li>• The threshold for net turnover generated in the Union by a third-country company to be subject to group reporting requirements (through a subsidiary or branch in the EU) is increased from EUR 150 million to EUR 450 million.</li> </ul> <p><b>Reporting Standards and Simplification</b></p> <ul style="list-style-type: none"> <li>• The delegation to the Commission to adopt sector-specific reporting standards is removed in order to avoid an increase in the number of prescribed data points.</li> <li>• The future possibility of switching from the limited assurance requirement to the reasonable assurance requirement is eliminated.</li> <li>• Companies may omit information in exceptional cases if its disclosure would seriously harm their commercial position, or if it concerns trade secrets, classified information or data that jeopardises privacy or security.</li> <li>• The Commission will adopt a delegated act to revise the first set of ESRS, with the aim of reducing the number of mandatory data points,</li> </ul>
-------------	--

<sup>20</sup> For further information on the Omnibus I Package see: [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_25\\_615](https://ec.europa.eu/commission/presscorner/detail/en/qanda_25_615)

<sup>21</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025PC0081>

## CSDDD

prioritising quantitative data and providing clearer guidance on the application of the materiality principle. To this end, EFRAG has developed the Draft Simplified ESRS and on 3 December officially presented its technical advice on them to the Commission.

### **Trickle-down effect and value chain**

- Extension and strengthening of the value chain cap: The restriction on requesting information from value chain partners is strengthened and applied directly to the reporting company.
- Companies subject to the CSRD may not request information from companies in their value chain with up to 1.000 employees that goes beyond the voluntary reporting standards (VSME standards<sup>22</sup>) to be adopted by the Commission, except for additional information commonly shared within the sector.
- Companies in the value chain (up to 1.000 employees) have a statutory right to refuse to provide information that goes beyond VSME standards in response to a CSRD reporting request. The reporting company has an obligation to explicitly inform its value chain partners about which requested information exceeds VSME standards and about their legal right to decline such a request.

### **Scope of Due Diligence and Chain of Activities**

- For EU companies it applies to those with more than 5.000 employees and a worldwide net turnover exceeding EUR 1.5 billion; For non-EU companies it applies to those from third countries that generate a net turnover in the EU exceeding EUR 1.5 billion.
- The due diligence obligation is limited, as a general rule, to the company's own operations, its subsidiaries and its direct business partners.
- The company shall extend the assessment to indirect partners only if it has plausible information suggesting the existence or likelihood of adverse impacts.
- To limit the cascading effect, large companies may only request information from direct business partners with fewer than 1,000 employees that is strictly necessary for the scoping exercise and cannot reasonably be obtained by other means. Furthermore, for partners with up to 1.000 employees, the reporting company may not request information that exceeds the voluntary sustainability reporting standards (VSME), and these partners have a statutory right to refuse excessive requests.
- If a company contractually requires a direct partner (especially SME) to ensure compliance along the chain, it must provide targeted and proportionate support measures.

### **Monitoring, Commitment and Simplification**

- The frequency of periodic assessments of the adequacy and effectiveness of due diligence measures (monitoring) is extended to 5 years. However, ad hoc assessments must be carried out without undue delay in the event of significant changes or whenever there are reasonable grounds to believe that the measures are no longer effective.

<sup>22</sup> Voluntary standard for non-listed micro-, small- and medium-sized undertakings (VSME) are a voluntary sustainability reporting framework developed by EFRAG for SMEs not listed, which offers a simplified version of the mandatory European standards for large companies.

## Taxonomy Regulation

- The stages of the due diligence process in which mandatory stakeholder engagement is required are reduced.
- The obligation, as a last resort, to resolve the business relationship in the event of actual or potential adverse impacts is removed. Instead, the company must suspend the relationship or increase its leverage.
- The obligation to adopt a transition plan for climate change mitigation is clarified to require “reasonable efforts” to ensure the business model and strategy contribute to the transition to a sustainable economy and the limiting of global warming in line with the Paris Agreement. The plan must include an indication of implementing actions planned and undertaken, while its specific design elements are now optional. Furthermore, the adoption of such a plan is optional during a two-year transitional period.

### **Penalties and civil liability**

- The specific EU-harmonised civil liability regime<sup>23</sup> is removed. However, the Directive would retain the requirement that victims receive full compensation for damages caused by failure to comply with due diligence obligations under national law.
- The requirement to base pecuniary penalties solely on the company's net worldwide turnover is removed as a standalone factor. Additionally, the previous “minimum cap” (which stated the maximum fine could not be less than 5% of turnover) is eliminated. Instead, Member States must ensure the maximum limit of pecuniary penalties is set at 5% of the net worldwide turnover in the financial year preceding the fine. The Commission is tasked with developing guidelines to assist supervisory authorities in determining the specific level of penalties

### **Reduction in taxonomy reporting obligations for medium-sized companies**

- Large companies with more than 1.000 employees but with net turnover not exceeding EUR 450 million will have a simplified and optional (opt-in) reporting regime. These undertakings are only required to disclose turnover and CapEx indicators if they choose to claim that their activities are associated with economic activities that qualify as environmentally sustainable (aligned) or meet only certain criteria (partially aligned) under the Taxonomy Regulation. Disclosure of the OpEx indicator is voluntary for these companies.
- Greater flexibility is introduced by allowing these companies to also report on activities that meet only some of the Taxonomy's technical screening criteria (partial alignment), promoting a gradual transition.
- The Commission is empowered to adopt delegated acts to establish specific rules and methodologies for the content and presentation of information regarding activities that are only partially aligned with the Taxonomy.

Source: own elaboration on the 2025/0045(COD)<sup>24</sup>

<sup>23</sup> A set of uniform rules established by the CSDDD, which regulate cases in which a company could be held accountable for failing to fulfil its due diligence obligations with regard to human rights and the environment.

<sup>24</sup> <https://data.consilium.europa.eu/doc/document/ST-10276-2025-INIT/en/pdf>

Furthermore, also as part of Omnibus I, the European Parliament and Council approved and adopted the “Stop the clock” Directive (EU 2025/794<sup>25</sup>), which introduces targeted changes to the timing of the application of the CSRD and CSDDD. In particular, with regard to the former (CSRD), the Directive postpones by two years the start of reporting obligations for companies that were supposed to start reporting for financial years beginning on 1 January 2025 and 1 January 2026. In a similar vein, with regard to the CSDDD, the Directive stipulates a one-year deferral for both the transposition deadline (now set at 26 July 2027) and the application date for the initial group of companies (now set at 26 July 2028) for Member States<sup>26</sup>. This deferral is intended to provide companies with a more protracted period for preparation and consideration of the guidelines that the Commission has yet to promulgate concerning the practical arrangements for fulfilling due diligence obligations. This directive was considered necessary to provide legal certainty and to prevent companies from incurring unnecessary or avoidable costs while awaiting further legislative simplification.

The Commission has set itself the clear objective of delivering an effort to simplify procedures. This is to be achieved by reducing administrative burdens by at least 25%, with a target of at least 35% for SMEs. The estimated total annual savings in administrative costs are EUR 6.3 billion, and the additional public mobilisation and private investment capacity is estimated to be EUR 50 billion, to support policy priorities (European Commission, 2025d<sup>27</sup>).

However, it is important to note that the Omnibus package is being implemented at a time when many companies have already initiated the process of complying with the Directives in question. This implies that companies had already started to prepare, investing financial and human resources (Bertram, 2025). With regard to the CSRD, it is noteworthy that 74% of Member States have transposed it into their national legal systems<sup>28</sup> (European Commission, 2025e<sup>29</sup>), thereby encompassing the implementation efforts of companies within the scope of the Directive. Furthermore, it should be noted that the simplifications proposed in relation to the CSDDD could lead to a significant reduction in its enforcement role, thus reinforcing the debate and criticism that already existed at the time of its entry into force. In this regard, the approved version of the Directive was described as characterised by “last minute changes due to political maneuvering by several Member States and business lobbies, which further watered down a political agreement that already did not fully meet international standards and

---

<sup>25</sup> <https://eur-lex.europa.eu/eli/dir/2025/794/oj>

<sup>26</sup> The Council's negotiating mandate 2025/0045(COD) proposes a further adjustment, namely the unification of the application date for the CSDDD for all companies to 26 July 2029, and the transposition deadline to 26 July 2028.

<sup>27</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_614](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_614) last access 14/12/2025

<sup>28</sup> In Italy, transposition was ensured by Legislative Decree 125/2024, which reiterated the reporting requirements and introduced deadline extensions to facilitate the transition. It also specified the methods of supervision and assurance of reporting in the national legal context.

<sup>29</sup> [https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/enforcement-and-infringements-banking-and-finance-law/monitoring-banking-and-finance-directives/corporate-sustainability-reporting-directive\\_en](https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/enforcement-and-infringements-banking-and-finance-law/monitoring-banking-and-finance-directives/corporate-sustainability-reporting-directive_en) last access 14/12/2025

expectations” (Meyer, 2024<sup>30</sup>). However, beyond the changes in the geopolitical context, which could partially explain the new European approach, it would have been impossible for the European Commission to ignore the criticism levelled at the ESRS in particular for being overly complex, as well as the presence of some elements of improvement in the CSDDD regulatory text. According to scholars such as Principale (2023), these elements would leave too much room for manoeuvre to each Member State in transposing the Directive into national law. This risked creating a lack of homogeneity between the behaviour of companies operating in different countries, as well as increasing the burden on small companies. These could be indirectly affected by the Directive through their relations with the larger companies falling within its scope. This problem is also identified in the application of the CSRD.

In summary, the necessity for regulatory simplification is indisputable, particularly within the context of an overregulated environment such as that of the EU, wherein the imposition of novel regulatory obligations must be substantially justified by specific requirements. Conversely, it is imperative to underscore the critical issues inherent in the simplification process proposed by Omnibus. The latter, in fact, could be regarded as a dilution of the process of achieving the Green Deal objectives. Moreover, while this may be perceived as a respite by companies that are now exempt from the scope of application or benefiting from deferred deadlines, it does not necessarily result in a significant reduction of their administrative burden. This is particularly the case when considering that the changes are being implemented at a time when many companies were already preparing to meet the original requirements (Bertram, 2025).

In addition to the aforementioned points, the impact in terms of legal uncertainty must be considered, despite the stated objective of reducing it and providing greater legal certainty. In accordance with the specifications outlined by Hoffmann et al. (2008), this type of uncertainty can be defined as: “perceived inability to predict the future state of the regulatory environment” (p.714). This issue may be linked to concerns regarding the long-term stability of the Directives, as evidenced by the significant reduction in the scope of the CSRD. This could potentially create the impression that the political agreement on the basic direction of the regulatory framework is not robust, possibly resulting in further revisions in the future and generating uncertainty about the overall effectiveness of the regulation (Hoffmann et al., 2008). To elaborate further, with reference to the optional reporting (opt-in) for partial alignment with the Taxonomy and the removal of the development of sectoral standards, it becomes evident that these novel requirements, although designed to streamline processes, will necessitate the establishment of fresh guidelines and delegated acts for the purpose of standardising content and presentation. This consequently could precipitate a period of operational uncertainty with regard to the accurate interpretation and practical implementation of the amendments. This is further compounded by the ambiguity surrounding the implementation process (Hoffmann et al., 2008), as the Omnibus legislation has been shown to delay the application of the CSRD and CSDDD. It is evident that the underlying rationale for postponing the application dates is to circumvent superfluous expenditures in the context of impending

---

<sup>30</sup><https://corporatejustice.org/news/reaction-csddd-endorsement-brings-us-0-05-closer-to-corporate-justice/>

simplifications. However, this course of action may be indicative of regulatory instability, thereby engendering an uncertain and challenging regulatory landscape. Finally, the radical changes to the scope of the CSRD may increase uncertainty about the competitive consequences, generating what has been defined by Hoffmann et al. (2008) as regulation-induced uncertainty. It is important to note that companies which have already invested in complying with the original, broader framework may perceive a competitive disadvantage compared to companies which are now exempted. This is due to the continuous modification of the rules, which exacerbates the inability of companies to predict whether compliance efforts will have a positive or negative effect on the market.

In conclusion, although the Omnibus proposals aim at simplification to reduce compliance costs, the very act of reopening and modifying fundamental elements of regulations in the early stages of implementation (reducing scope, postponing deadlines and altering enforcement and liability mechanisms) intensifies various forms of regulatory uncertainty, particularly operational clarity and long-term stability. This will necessitate constant monitoring and the definition of clear guidelines by the European Commission in order to allow for consistent application of future provisions, seeking to minimise the potential negative impacts generated by regulatory uncertainty.

# **FIRST CHAPTER**

## **ARE THE EUROPEAN SUSTAINABILITY REPORTING STANDARDS EFFECTIVE TO FIGHT MODERN SLAVERY RISK?**

### **Summary**

The chapter examines the role of sustainability reporting and disclosure in steering companies to address modern slavery risk, with a particular attention to the GRI standards and the ESRS. The critical analysis reveals that accounting standards can contribute to raising awareness of modern slavery risk, while also revealing significant limitations in their capacity to generate substantive change. In order to surmount these limitations, the chapter advocates for the implementation of the CSDDD as a mechanism to enforce the integration of a due diligence logic across the entire chain of activities and calls for the adoption of collaborative approaches. Overall, it proposes a constructive analytical framework for examining modern slavery reporting and offers insights for future regulatory design and stakeholder engagement, emphasising the use of reporting as a catalyst for meaningful change rather than as an instrument of symbolic compliance.

## 1.1 Introduction

Modern slavery, also known as contemporary slavery, encompasses various forms of exploitation where individuals are deprived of their freedom and exploited for personal or commercial gain (Bales, 2005). It is a grave violation of human rights and a pressing global issue and refers to the exploitation of individuals through forced labor, human trafficking, debt bondage, and other forms of coercion. Modern slavery is fueled by factors such as poverty, inequality, and weak governance, making it essential for businesses to play a significant role in combating this heinous practice (Bales, 2012; 2017).

Eradicating the phenomenon of modern slavery is a challenge for sustainable development that can only be fought through the joint effort of supranational organisations, Non-Governmental Organizations (NGOs), governments, the business world, and civil society in general (Burrit and Christ, 2023).

Countries such as the UK, in 2015, and Australia, in 2018, have implemented legislation requiring businesses to disclose their efforts to eradicate modern slavery from their operations and supply chains. In those countries, reporting and disclosure regarding modern slavery have become crucial for corporate responsibility, generating growing interest and debate among policymakers, professionals, and scholars (Christ et al., 2019; Mai et al., 2023).

Human rights reporting will be further integrated into the GRI standards, following the launch in 2022 of a project to update labor topic standards (including GRI 408: Child Labor; GRI 409: Forced or Compulsory Labor). The ESRS, adopted in July 2023, provide a framework that includes reporting on the identification and management of modern slavery risks, although, as in the GRI standards, the issue is not directly addressed in a devoted standard.

Since, to our knowledge, no accounting researchers have investigated the EU regulatory framework on modern slavery reporting, we are interested in understanding how the GRI standards and ESRS may support European companies in their disclosure and play a role in raising awareness of this phenomenon. To this end, we pose the following research question:

*RQ1 - How do the GRI standards and the ESRS raise awareness by addressing modern slavery?*

Furthermore, regarding ESRS that are being implemented by companies, we will examine whether those standards alone may be a tool for effective change to eradicate modern slavery and protect human rights, and so we formulate the following research question:

*RQ 2- Are the ESRS enough to guide companies in the fight against modern slavery?*

For this reason, our critical analysis of the above-mentioned standards will be implemented by discussion on co-enforcement mechanisms to make the ESRS standards more effective.

This chapter is structured as follows: Section 1.2 focuses on the background and literature on modern slavery reporting. Section 1.3 describes the methodology followed, and Section 1.4 presents a critical analysis of GRI standards and European Social Reporting Standards regulating companies' disclosure obligations. Finally, section 1.5 presents our conclusions.

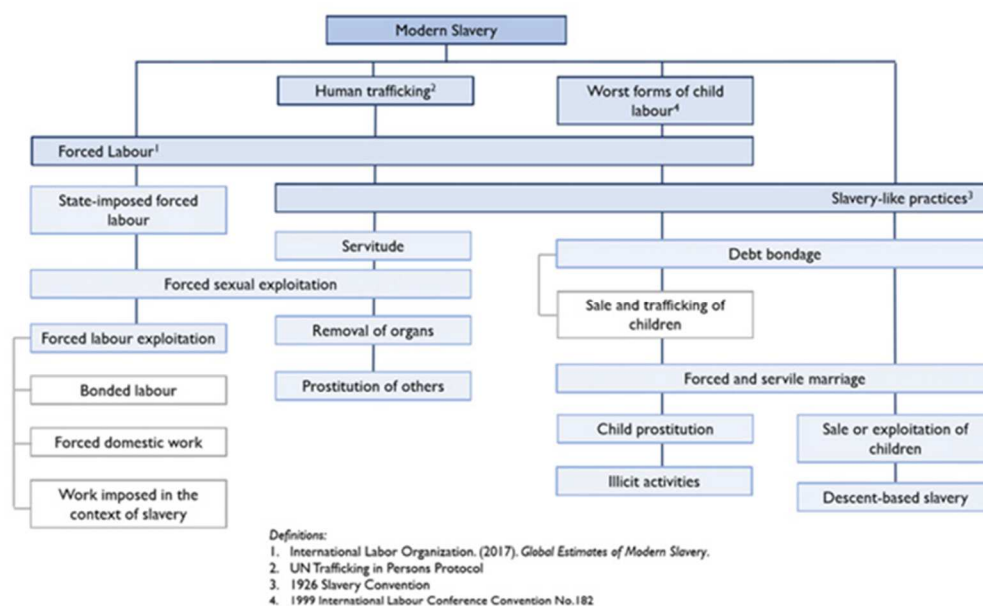
## 1.2 Background and literature review

### 1.2.1 Modern slavery: an umbrella term

Modern slavery is an umbrella term scoping several human rights issues including forced labor, bonded labor, worst forms of child labor, human trafficking, and slavery-like practices (GRI-RLI, 2019<sup>31</sup>). The term modern slavery is not defined in law, but it generally refers to situations of exploitation a person cannot refuse or leave because of threats, violence, coercion, deception, or abuse of power (Walk Free Foundation, 2023; International Labour Organisation, 2019).

Despite the different interpretations about the scope of the term, as well as different cultural sensitivity to this term across the globe, the concept has gained international attention due to the introduction of the 2015 UK Modern Slavery Act and 2018 Australian Modern Slavery Act. The GRI (2019) acknowledges the relevance of the theme worldwide, both in more developed and developing countries, focusing attention on the characteristics that are most relevant for businesses, as outlined in Figure 3.

**Figure 3.** The modern slavery phenomenon



Source: 2019 GRI-RLI report "Advancing Modern Slavery Reporting to Meet Stakeholder Expectations"

The relationship between the impact of modern slavery and business activities is especially clear in the case of forced labor (LeBaron, 2018). This is not a problem that any one nation can address and solve on their own, and as such, the eradication of modern slavery has become the focus of multilateral organisations like the United Nations (UN), as part of the 2030 Agenda for Sustainable Development. The primary SDG relating to human rights is SDG 8, which focuses on “promot[ing] inclusive and sustainable economic growth, employment and decent work for all.”, actually Target 8.7 directly calls for the end of human trafficking and modern slavery by stating: “Take immediate and

<sup>31</sup> [https://www.globalreporting.org/media/r1ydr40k/rli-gri\\_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf](https://www.globalreporting.org/media/r1ydr40k/rli-gri_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf)

*effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers.”<sup>32</sup>*

In this context, the antecedent of our research is that the responsibility of companies should translate, from an economic point of view, into the return of a fair economic value to the workforce involved in the production process and the generation of a positive social impact for the community (Gold et al., 2015).

### ***1.2.2 How reporting and disclosure on modern slavery can be a driver of social change?***

Reporting and disclosure regarding modern slavery have become critical aspects of corporate responsibility and accountability in recent years (Christ et al., 2019; Mai et al., 2023). Some countries, such as the UK and Australia, adopted Modern Slavery Acts requiring businesses to draw an annual statement detailing the actions they have taken to prevent modern slavery within their operations and supply chains.

Not surprisingly, the UK has moved first in this direction. The belief that companies, as social actors, and accounting, as a socio-technical system, can be agents of change is rooted in Anglo-Saxon accounting studies (Burchell et al., 1980). Accounting is not a neutral technical phenomenon, but an intense social process that impacts society in many ways. As a result of such perspective, accounting has gained its current organisational and social significance (Hopwood and Miller, 1994). More recently, the commitment of some scholars to challenging environmental degradation and social injustice has given rise to the field of social and environmental accounting (SEA) research and practice (Gray, 2002).

Effective reporting and disclosure may play a crucial role in raising awareness, fostering transparency, and holding businesses accountable for their actions in combating modern slavery (Schaper and Pollach, 2021; Ahmad et al., 2023). However, accounting literature pertaining to modern slavery, also highlights several gaps in effectively guiding companies to design their reporting and control system as well as to improve stakeholder engagement and accountability, as shown in table 4. By addressing these gaps, researchers can contribute to the development of more effective accounting practices and regulatory frameworks for combating modern slavery and promoting ethical business practices.

---

<sup>32</sup> [https://sdgs.un.org/goals/goal8#targets\\_and\\_indicators](https://sdgs.un.org/goals/goal8#targets_and_indicators)

**Table 4.** Shortcomings highlighted in accounting literature

Shortcomings highlighted in the accounting literature	
<p><i>Design and implementation of a reporting and control system</i></p>	<p><b>Measurement and Disclosure Standards:</b> While there has been progress in developing frameworks and guidelines for reporting on modern slavery, there is a lack of standardized measurement and disclosure practices across industries and jurisdictions. This inconsistency hampers comparability and transparency in assessing companies' efforts to address modern slavery (Hess, 2019).</p> <p><b>Supply Chain Transparency and Traceability:</b> More research is needed on innovative accounting techniques and technologies, such as blockchain and supply chain mapping tools, to enhance supply chain transparency and traceability (Cole et al., 2019) and to mitigate modern slavery risk (Flynn and Walker, 2021).</p> <p><b>Auditing and Assurance Practices:</b> There is a need for more standardized audit methodologies and assurance frameworks to provide stakeholders with greater confidence in the accuracy and reliability of modern slavery disclosures (Benstead et al. 2021).</p> <p><b>Costs and Benefits of Compliance:</b> There is no empirical research on the costs and benefits of compliance with anti-slavery regulations and standards and limited research on companies' compliance behavior (Flynn, 2020). Understanding the cost-effectiveness of anti-slavery initiatives can help companies make more informed decisions and allocate resources more efficiently.</p>
<p><i>Stakeholder Engagement/Collaboration and Accountability</i></p>	<p><b>Stakeholder Engagement and Accountability:</b> There is a need for research on the effectiveness of stakeholder engagement mechanisms, in driving corporate accountability and promoting responsible business conduct (Christ and Burritt, 2023).</p> <p><b>Co-enforcement:</b> it involves participation by workers, worker organisations, influential firms, and government bodies in mutually enforcing labour standards (Guthrie et al., 2022; Dodd et al., 2023). There is a need for further research on the mechanisms that help to eradicate modern slavery thanks to strategic co-enforcement initiatives (Boersma and Bedford, 2023).</p>

Source: own elaboration

In light of the above gaps and considering the lack of specific regulatory frameworks and reporting requirements on modern slavery for EU companies, our interest is to focus on how GRI standards and ESRS may support companies in their disclosure and may play a role in raising awareness of this phenomenon, and so we formulate the following research questions:

*RQ1 -How do the GRI standards and the ESRS raise awareness by addressing modern slavery?*

*RQ 2- Are the ESRS enough to guide companies in the fight against modern slavery?*

### **1.3 Methodology**

From a methodological perspective, we performed a critical analysis of the relevant sections of SDGs, GRI, and ESRS, which, as for our background, set out the fundamental guidelines for addressing the phenomenon of modern slavery to respond to our research questions.

First, considering the definition of modern slavery, we emphasised the close interconnection between the GRI standards and the achievement of target 8.7 of the SDGs which aims to eliminate forced labour, modern slavery, human trafficking, and child labour.

Then, we analysed the GRI standards and the ESRS, on the basis of their interoperability. The latter concept is highlighted in the GRI-ESRS Interoperability Index, which “*is a mapping tool that helps entities understand the commonalities between the two sustainability reporting standards*”<sup>33</sup>. In addition, we proceeded with a comprehensive analysis of the European social standards, underlying the data points (DPs), sub-narrative elements of a disclosure requirement, relevant for reporting on the risk of modern slavery. Finally, we analysed the CSDDD as a tool that could be used alongside the implementation of a co-enforcement model to amplify the revolutionary impact of European standards.

In the following table 5, sources and the specific sections analysed are summarised.

---

<sup>33</sup> <https://www.globalreporting.org/media/qzmoeixv/esrs-gri-interoperability-index-november-2024.pdf>  
(last access 18/12/2025)

**Table 5.** Sources analysed

SOURCE	SECTION ANALYZED
UN Sustainable Development Goals	Goal 8- decent work and economic growth: Target 8.7
GRI STANDARDS	GRI 408-Child Labor and GRI 409- Forced or Compulsory Labor
ESRS	ESRS S1-Own workforce; ESRS S2-Workers in the value chain; ESRS S3-Affected communities; ESRS S4-Consumers and end-users.
CSDDD	Whole Directive

Source: own elaboration

## 1.4 Discussion

### 1.4.1 How do the GRI standards and the ESRS raise awareness by addressing modern slavery?

#### *The role of the GRI standards*


The GRI standards do not address modern slavery in a specific standard. However, they do provide a framework for companies to disclose their efforts to address human rights issues, including modern slavery risk in their operations and supply chains.

Moreover, the GRI has taken steps to promote awareness and action to fight modern slavery through various initiatives and collaborations. This organisation collaborates with other ones focused on combating modern slavery, including the United Nations Global Compact (UNGC) and the Alliance 8.7, a global partnership committed to achieving Target 8.7 of the UN SDGs. As the report “Linking the SDGs and the GRI standards” states, the GRI standards “play a key role in shaping the very process of having sustainability reporting reflected in the SDGs”<sup>34</sup>. More specifically, there is a strong interconnection between the “GRI 408-Child labor” and the “GRI 409 - Forced or Compulsory Labor” and the achievement of the target 8.7 as highlighted by the figure 4 below.

As a consequence, the decision of a company of being compliant with the above-mentioned two GRI standards (408 and 409) consent to individuate and mitigate risks inextricably linked to modern slavery ones.

<sup>34</sup> GRI (last update 2022) available at [https://globalcompact.at/wp-content/uploads/2022/09/gri-linkagesdg\\_gristandards-updatemay2022-final.pdf](https://globalcompact.at/wp-content/uploads/2022/09/gri-linkagesdg_gristandards-updatemay2022-final.pdf) (last access 18/12/2025)

**Figure 4.** Representation of the linkage between the target 8.7 and the GRI 408 and GRI 409

SDG	Target	Available Disclosures	Disclosure	Sources
 8	8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	a. Operations and suppliers considered to have significant risk for incidents of: <ol style="list-style-type: none"> <li>i. child labor;</li> <li>ii. young workers exposed to hazardous work.</li> </ol>	408-1	GRI 408: Child Labor 2016
		b. Operations and suppliers considered to have significant risk for incidents of child labor either in terms of: <ol style="list-style-type: none"> <li>i. type of operation (such as manufacturing plant) and supplier;</li> <li>ii. countries or geographic areas with operations and suppliers considered at risk.</li> </ol>		
		c. Measures taken by the organization in the reporting period intended to contribute to the effective abolition of child labor.		
		Operations and suppliers considered to have significant risk for incidents of forced or compulsory labor either in terms of: <ol style="list-style-type: none"> <li>i. Type of operation (such as manufacturing plant) and supplier;</li> <li>ii. Countries or geographic areas with operations and suppliers considered at risk.</li> </ol>	409-1	GRI 409: Forced or Compulsory Labor 2016
		Measures taken by the organization in the reporting period intended to contribute to the elimination of all forms of forced or compulsory labor.	409-1-b	GRI 409: Forced or Compulsory Labor 2016

Source: GRI (last update 2022), the report “Linking the SDGs and the GRI Standards”

Therefore, by including specific human rights indicators (see “Available Disclosure” in figure 4), the GRI standards encourage companies to assess and disclose their human rights performance, highlighting their efforts to address child labour and forced and compulsory labour, all of which are included in the definition of modern slavery.

The relevance of the information required by GRI standards 408 and 409 in addressing human rights risks is also demonstrated, in our view, by EFRAG’s decision to ensure interoperability with these standards by introducing similar requirements in the ESRS.

In addition, the GRI encourages companies to take proactive measures to address modern slavery risk in their sustainability reporting, highlighting the importance of transparency and accountability in combating this scourge. An example of this type of GRI awareness raising effort is the 2019 GRI-RLO report “Advancing Modern Slavery Reporting to Meet Stakeholder Expectations”<sup>35</sup>, which provides a toolkit useful for reporting on due diligence and supportive measures related to modern slavery across the value chain. In summary, the report calls for collaborative action between companies, governments, NGOs, and other stakeholders to improve reporting practices, strengthen regulatory frameworks, and promote ethical business conduct, and the GRI can play a role in facilitating these efforts.

However, while the GRI standards provide a valuable, even if voluntary, framework for companies to disclose their efforts to address human rights issues, their effectiveness in combating modern slavery ultimately depends on how companies interpret and implement these standards in practice.

### *The role of the ESRS*

The European Sustainability Reporting Standards have emerged as a crucial tool in promoting corporate responsibility and sustainable development. Regarding our research concern, the ESRS provide a framework that includes reporting on the identification and management of modern slavery risks, although, as in the GRI standards, there is currently no specific standard or data point focused solely on modern slavery.

<sup>35</sup>[https://www.globalreporting.org/media/r1ydr40k/rli-gri\\_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf](https://www.globalreporting.org/media/r1ydr40k/rli-gri_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf)

The ESRS encourage companies to conduct due diligence to identify, assess and manage social and human rights risks, which includes modern slavery as a human rights violation, and emphasise the importance of engaging with suppliers to promote responsible practices throughout the supply chain.

More specifically, to express the role of the ESRS in raising awareness of modern slavery, it is important to focus on social topical standards:

- in the ESRS S1-Own workforce and in the ESRS S2-Workers in the value chain, the sub-topic Other work-related rights clearly considers also the sub-sub topic Child labour and Forced labour;
- in the ESRS S3-Affected communities the sub-topic Communities' civil and political rights is specified by considering also the sub-sub topic Impacts on human rights defenders; and
- in the S4- Consumers and end-users the sub-topic Personal safety of consumers and/or end-users is expressed by also considering the sub-sub topics Health and safety, Security of a person and Protection of children<sup>36</sup>.

The requirement for disclosure on these different topics and sub-topics occurs through the data points. In the ESRS S1- Own workforce and in the ESRS S2- Workers in the value chain, there are different data points connected with the issue of human rights, but if we consider, as an example, exclusively the ones with a direct reference to child labour, we have to underline the request of:

- “Information about type of operations at significant risk of incidents of child labour” (S1-SBM 3)
- “Information about countries or geographic areas with operations considered at significant risk of incidents of child labour” (S1-SBM 3)
- “Disclosure of geographies or commodities for which there is significant risk of child labour, or of forced or compulsory labour, among workers in undertaking’s value chain” (S2- SBM 3)
- “Policies explicitly address trafficking in human beings, forced labour or compulsory labour and child labour” (S1-1 and S2-1).

More broadly, the link between European social standards and the themes encompassed by the term “modern slavery”, is evident, also considering the topics of the data points of the ESRS S2, the ESRS S3, and the ESRS S4, which are listed below<sup>37</sup>:

- Description of relevant human rights policy commitments.
- Disclosure of general approach for human rights and measures to provide and (or) enable remedy for human rights impacts.
- Disclosure of the extent and indication of nature of cases of non-respect of the UN Guiding Principles on Business and Human Rights, ILO Declaration on Fundamental Principles and Rights at Work or OECD Guidelines for Multinational Enterprises.
- Disclosure of severe human rights issues and incidents.

---

<sup>36</sup> For more details about topics, sub-topics, and sub-sub-topics of the ESRS see the table “Sustainability matters covered in topical ESRS” in ESRS 1- General requirements.

<sup>37</sup> For the details about all the data points of the ESRS see the “Implementation Guidance 3 - List of ESRS Data Points” available at <https://www.efrag.org/en/projects/esrs-implementation-guidance-documents>

- Initiatives or processes whose primary aim is to deliver positive impacts for the specific category considered in the standard, which are designed also to support the achievement of one or more SDGs.

European social standards include DPs that, if reported appropriately by companies, can ensure an objective and clear description of the risks and incidents of modern slavery. This includes respecting internationally recognised human rights standards and principles, such as those set out in the ILO Declaration on Fundamental Principles and Rights at Work.

In conclusion, while ESRS could play an important role in tackling modern slavery, their effectiveness depends on several factors, including the rigor of companies' due diligence processes and the robustness of regulatory enforcement mechanisms. Moreover, it is evident that both the GRI standards and the ESRS, with their high degree of interoperability, have the potential to contribute to the fight against modern slavery by providing frameworks and guidelines for sustainability reporting.

#### ***1.4.2 Are the ESRS enough to guide companies in the fight against modern slavery?***

##### *Strengths and shortcomings of ESRS*

This section examines the effectiveness of the ESRS in guiding companies to combat modern slavery. As illustrated in Table 6, the ESRS' primary strengths regard mandatory requirements also on modern slavery risks. Furthermore, the ESRS' standardised reporting encourages companies to adopt best practices, such as disclosing their human rights due diligence processes and engaging stakeholders as an integral part of the reporting process.

Conversely, as evidenced by the ESRS shortcomings, there is a need for more specific guidance on how companies should engage with stakeholders to ensure their meaningful participation to eradicate modern slavery. Furthermore, robust enforcement mechanisms must be established. As a consequence, it is necessary to develop tools that will enable the transformative potential of the European standards and that will encourage companies to take proactive measures to manage the risk of modern slavery, rather than merely complying with a disclosure requirement. Instruments that can lead companies in this direction are the CSDDD and, more generally, the implementation of a co-enforcement model.

**Table 6.** Strengths and shortcomings of ESRS

European Sustainability Reporting Standards	
<b>Strengths</b>	<p><b>Regulatory and Mandatory Compliance.</b> Compliance with the ESRS ensures that companies, within the scope of the CSRD, fulfil their reporting obligations also regarding modern slavery. Non-compliance may result in reputational damage, legal risks, and regulatory sanctions.</p> <p><b>Consistency and Comparability.</b> Standardized reporting requirements and metrics under the ESRS can enhance consistency and comparability in reporting among European companies, facilitating stakeholders to benchmark companies’ performance and identify leaders and laggards in addressing modern slavery risks. Standardized reporting also encourages companies to adopt best practices and improve their performance over time.</p> <p><b>Integration of Human Rights Due Diligence.</b> The ESRS encourage companies to conduct and to disclose human rights due diligence process to identify, prevent, and mitigate adverse human rights impacts, including modern slavery.</p> <p><b>Stakeholder Engagement.</b> The ESRS promote stakeholder engagement as an integral part of the reporting process. Companies are encouraged to engage with a wide range of stakeholders, including workers, affected communities, NGOs, and trade unions, to identify and address human rights risks effectively. Stakeholder engagement fosters transparency, builds trust, and helps companies understand the diverse perspectives and concerns related to modern slavery.</p>
<b>Shortcomings</b>	<p><b>Implementation challenges.</b> There may be gaps in coverage or effectiveness, both because modern slavery is not directly addressed in the standards and because for companies is possible to omit all disclosure requirements in a topical standard if it is assessed that is not material, so they have to perform a correct double materiality assessment</p> <p><b>Need for Implementation Guidance.</b> Companies may require additional guidance and support to implement reporting requirements effectively, particularly if they lack experience or expertise in addressing modern slavery within their operations and supply chains.<sup>38</sup></p> <p><b>Enforcement Challenges.</b> Even with regulatory support, enforcement mechanisms may be necessary to ensure compliance with reporting requirements and drive accountability for addressing modern slavery risks. Without robust enforcement, companies may not prioritize or adequately disclose information on modern slavery.</p>

Source: own elaboration

*The Corporate Sustainability Due Diligence Directive and other co-enforcement mechanisms*

As outlined in the introduction of this work, the CSDDD is the European legislation that sets out the obligations of companies for actual and potential adverse human rights and environmental impacts arising from their operations, those of their subsidiaries, and carried out by their business partners in companies’ chains of activities, as well as liability for violations of these obligations. (Art. 1, “Subject matter”, CSDDD).

As for human rights, the directive regulates the due diligence obligation and at the same time covers corporate directors’ duties to implement it through specific processes and measures. To comply with the directive, companies should map their supply chain to

---

<sup>38</sup> Currently, EFRAG has prepared implementation guidance on materiality assessment, value chain and detailed ESRS data points. They are available at <https://www.efrag.org/en/projects/esrs-implementation-guidance-documents>

identify and address potential risks and impacts (Kortelainen, 2022), while today the ESRS standards only cover the last stage of the due diligence obligation, i.e. the reporting stage.

However, it is important to note that excessive regulatory obligations may sort out unexpected results linked to merely formal implementation of the Directive. Therefore, it is crucial to guarantee the effectiveness of the due diligence proposal to generate real changes in the companies' behaviour.

Additionally, the implementation of a co-enforcement model, activated through mechanisms of collaborative governance, can be another effective approach to address the root causes of modern slavery and bring about systemic change, by leveraging the expertise, resources, and collaboration of multiple stakeholders, including government agencies, NGOs, industry associations, and other relevant actors. It emphasises formal, consensus-oriented, and deliberative decision-making processes (Fine, 2017) and requires trust building, and the development of commitment and shared understanding (Ansell and Gash, 2008). However, the effectiveness of co-enforcement depends on the willingness and capacity of all parties to collaborate effectively, which may vary depending on the context and stakeholders involved.

## **1.5 Conclusion and future research**

In this chapter, our contribution unfolds through a critical analysis of the texts regulating companies' disclosure obligations on modern slavery, with particular reference to the recently introduced European sustainability social reporting standards that are being implemented by companies and the CSDDD proposal, which can help the ESRS to provide a clearer framework for addressing modern slavery across industries and jurisdictions by imposing a due diligence process.

In line with previous literature (Amengual and Fine, 2017; Hampton, 2019; Boersma and Bedford, 2023), we agree that by combining legislative requirements with a collaborative enforcement approach, policymakers can create a more holistic and robust response to modern slavery, addressing both the regulatory and practical challenges associated with this complex issue. It is important, indeed, to recognise that in some countries, there are 'grey areas' where working in conditions that may border on human rights violations is the only income opportunity for certain populations. This generates a need for true social responsibility, a process that requires the involvement of governments, NGOs, and members of civil society, but almost all companies themselves.

In conclusion, we envisage two main research streams for future research. From a regulatory and institutional perspective, there is a need to explore how the CSDDD can be an effective tool to help the ESRS address the complex challenges associated with modern slavery. At the same time, future research should adopt a standpoint that involves the companies themselves and should analyse, from a cost-benefit perspective, how the implementation of new standards and regulations can generate processes of real sustainable change.

## **SECOND CHAPTER**

### **ESG Risk Identification and Mitigation Under the SEC Regulation in the Aerospace and Defence Sector**

#### **Summary**

The objective of this chapter is to examine the ESG risks and the mitigation actions that have been deemed pertinent by companies in their disclosures in response to mounting pressure from investors and the institutional environment. The study focuses on the 10-K forms of the four major A&D companies in the U.S. market. It draws on the framework developed by Beretta and Bozzolan (2004) for the analysis of corporate risk communication, focusing on three attributes (“width”, “depth”, and “mitigation”). The analysis demonstrates that disclosures frequently exhibit generic characteristics and, in some instances, are of a boilerplate nature. Moreover, a mimetic pattern is evident, whereby firms tend towards converging disclosure profiles with those of competitors in the marketplace. By systematising the current level of disclosure of ESG risks in the A&D U.S. context, it is demonstrated how mandatory disclosure may stabilise into defensive, minimally committal communication rather than into decision-useful specificity. This provides a lesson to be learned aimed at understanding what risk management processes companies will need to implement to meet new ESG risk disclosure requirements arising from regulatory developments in Europe and beyond.

## 2.1 Introduction

The increasing focus on sustainability concerns and changes in regulations regarding the communication and measurement of ESG issues necessitate significant efforts from companies. This includes implementing new management and control systems (Semenova, 2021; Harasheh & Provasi, 2023) and developing effective communication tools (Arvidsson & Dumay, 2022; Tsang et al., 2022). These efforts are linked, on the one hand, to the need to respond effectively to the information needs of investors and stakeholders, whose decision-making is increasingly driven by the relevance of ESG factors (Amel-Zadeh & Serafeim, 2018; Demartini & Pagliei, 2023) and, on the other hand, to the need to meet the challenges of a new regulatory scenario (Redondo Alamillos & de Mariz, 2022; Yosifova & Petrova-Kirova, 2022).

In this regard, ESG risk identification and mitigation is considered a focal point for companies to maintain adequate competitiveness and respond to multiple institutional pressures (Cohen, 2023; Zioło et al., 2023). The purpose of this chapter is to investigate the key ESG risks that companies need to disclose.

In accordance with the objective of our research, our decision was to focus on the U.S. context, where a mandatory approach to risk disclosure is in place. This approach is more detailed than in other regulations. (Campbell et al., 2014; Cordazzo et al. 2017; Brown et. al., 2018; Rose, 2020).

Beginning in 2005, the SEC mandated firms to include a risk factor section in their Form 10-K to discuss “*the most significant factors that make the company speculative or risky*” (Campbell et al., 2014). In 2018 and 2019, the SEC released new rules to update the disclosure obligations that apply to publicly traded companies stating that disclosure should discuss the most significant factors, including *emerging environmental, social, and governance risks* (Ho, 2020).

In addition, since the risks identified by companies are linked to the sector they belong to and their business model, we considered it worthy to adopt a sector-specific approach to provide an accurate and in-depth analysis (Antonicic, 2019). Then, we decided to develop our inquiry addressing the A&D.

There are many reasons for choosing the A&D sector. These reasons include its specific weight in the global economic context (Deloitte, 2023<sup>39</sup>, 2025<sup>40</sup>; Ahmad et al., 2021; Khan, 2023; Ghadge et al., 2010), the specificity of the sector's activity, which by its very nature has a controversial relationship with sustainable development (Singh et al., 2022), the presence of European players competing with U.S. companies in the global market and, finally, the identification of a research gap linked to the lack of studies on the relationship between this sector and ESG risks.

Our analysis begins with the selection of the four U.S. champions in the A&D sector and through the construction of a framework aimed at detecting the quality of disclosure of

---

<sup>39</sup> <https://www.deloitte.com/global/en/Industries/defense-security-justice/analysis/gx-aerospace-and-defense-industry-outlook.html>

<sup>40</sup> <https://www.deloitte.com/us/en/insights/industry/aerospace-defense/aerospace-and-defense-industry-outlook/2025.html?utm>

ESG risks (Beretta & Bozzolan, 2004, 2008; Jia et al., 2016; Truant et al., 2017) and the presence and type of instruments used to mitigate them.

More specifically, this framework, which is the result of our re-elaboration of the model already developed in the paper by Beretta and Bozzolan in 2004, is characterised by the presence of three dimensions of analysis, namely 'Width', 'Depth' and 'Mitigation'; the third represents the element of innovation with respect to the models already elaborated in the literature. All the information classified within the model was collected through a manual content analysis (Krippendorf, 1980) to correctly interpret and categorise the information collected during the analysis process (Guthrie & Abeysekera, 2006).

Our findings reveal that disclosures about ESG risks suffer from the limitations already highlighted on disclosure of risks in the 10-k form, namely, to be generic and, in some cases boilerplate (Ho, 2020). Furthermore, it has been confirmed that a 'mimetic approach' has been adopted by companies, as shown by previous studies on voluntary sustainability reporting (Martínez-Ferrero & García-Sánchez, 2017). This behaviour stems from the desire of companies to meet both the regulatory requirements and the stakeholders' expectations by trying to minimise both information and data and conforming to the quantity and quality of ESG information disclosed by competitors.

Our research contributes to the emerging field of ESG risk disclosure by providing a structured analysis of the current level of mandatory disclosure under the SEC regulation. Specifically, we focus on A&D companies, which are global players and knowledge-intensive business services, making them worthy of investigation (Muller & Doloreux, 2009).

The chapter's final contribution is to provide insights for future research on the different approaches taken by U.S. and EU regulators in defining the content of companies' mandatory ESG risk disclosures.

This chapter is structured as follows: section 2.2 illustrates the theoretical background and purpose of the research, focusing on both the relationship between risk management and risk disclosure and the SEC's increased regulatory focus on ESG risk factors and risk mitigation disclosure; Section 2.3 focuses on the research design, describing the selection of the sample and the construction of the analytical framework; the findings, interpreted across the three dimensions of ESG issues in terms of both risk and impact, are presented in Section 2.4; and Section 2.5 highlights our conclusions and some implications for future research directions.

## **2.2 Theoretical Background and Context**

### ***2.2.1 From ESG risk management to ESG risk disclosure and vice versa***

In previous years, formal, rigorous risk management was once the lonely domain of commercial banks and insurance companies; it has since spread to investment banks, asset managers, corporations and governments (Power, 2004). Meanwhile, it has also become the subject of increasing interest to shareholders, bondholders, lenders, rating agencies, regulators and policymakers. Risk management has evolved, including risk mitigation efforts on the market, operational risks and processes, reputational risks and, in the last

year, shifting attention toward arising risks such as cyber security, climate change and, more broadly, ESG risks (Antoncic, 2019).

On the one hand, the evolution of risk management is linked to the characteristics of the firm and the context that require greater attention to the issue of risk, but also to the capabilities developed internally, as suggested by the resource based view (Barney & Clark, 2007; Madhani, 2010), according to which risk management can be conceived as a dynamic capability<sup>41</sup>, which is shaped by the firm's resources and which also shapes the future organisational resources (Mishra et al., 2019).

On the other hand, the importance of risk management is also connected to external pressure from investors and regulators, which, in recent years, has highlighted the need to disclose more information about emerging risks. Consequently, as institutional theory suggests (Zucker, 1987; Ball & Craig, 2010), there is an obvious need for companies to translate, inside the organisation, the macro changes taking place outside. Particularly, ESG risks have been fuelled by growing recognition of their impacts on corporations and society. Governments and multilateral institutions, including the UN, the International Organization of Securities Commissions (IOSCO), standard-setters such as the International Sustainability Standards Board (ISSB) and the GRI, are all promoting ESG disclosure to help capital markets more accurately price ESG risks and encourage companies to become more accountable for the external impacts of their operations.

However, it should be emphasised that this request for more information is exercised by different bodies with distinct purposes and approaches. This pressure from institutions and the financial market drives companies both to invest in sustainability communication and integrate sustainability into their strategic plans and management. Such behaviour has been studied thoroughly, and scholars agree that isomorphism (i.e. coercive, normative and/or mimetic) is the main theoretical lens to understanding this journey toward greater environmental and social responsibility (Martínez-Ferrero & García-Sánchez, 2017).

The first step toward corporate social responsibility is generally accomplished by drawing up a sustainability report (Dienes et al., 2016).

Although Sustainability reporting is primarily designed for communicating with the stakeholders, the standards provide themes of attention, guidelines and metrics that prompt companies to question the relevance of ESG themes in their business management. In most organisations, this process starts with identifying, assessing, responding to and monitoring ESG risks and opportunities. It can translate into a next step that leads to the board's assumption of a strategic position and, consequently, the activation of sustainability-oriented management (Arif et al., 2021). This assumption of responsibility is key to reorienting the system of corporate controls, within which ESG risk management activities, as above stated, have become increasingly important.

---

<sup>41</sup> Dynamic capabilities: 'the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die' (Eisenhardt et al., 2000).

Regardless of how much harmonisation there will be on ESG standards, mandatory sustainability reporting will increase significantly worldwide over the next few years and that this will impact corporate management systems (Christensen et al., 2021).

Since, as of today, companies listed on the U.S. financial markets are already subject to disclosure requirements on main corporate risk factors and how they are managed, for the purposes of our research, it is essential to delve into this context.

### ***2.2.2 The SEC's current and new rules about ESG risk factors and risk mitigation disclosure***

The SEC requires companies to publish 10-K forms so investors can make informed investment decisions. The 10-K includes five distinct sections:

- *Business*. This provides an overview of the company's main operations, including its products and services.
- *Risk factors*. These outline all risks the company faces or may face in the future.
- *Selected financial data*. This section details specific financial information about the company over the last five years.
- *Management's discussion and analysis* of financial condition and results of operations. Also known as MD&A, this gives the company an opportunity to explain its business results from the previous fiscal year.
- *Financial statements and supplementary data*. This includes the company's financial statements audited. A letter from the company's independent auditor certifying the scope of their review is also included in this section

In 2018 and 2019, the SEC released new rules to update the disclosure obligations that apply to publicly traded companies under Regulation S-K. The SEC's current guidance on risk factors disclosure advises that disclosure should discuss the 'most significant' factors that make the company's securities speculative or risky and should be organised and concise. This includes also how companies provide information to investors about risk, including emerging ESG risks (Ho, 2020).

99% of companies in the S&P 500 already produce voluntary sustainability reports (Governance and accountability institute, 2025<sup>42</sup>), so some of this ESG information is already publicly available to investors, although their quality and comparability are uneven across firms. Moreover, voluntary sustainability reports are also subject to different materiality and reliability standards than those that apply to public filings. These factors have led most investors to rely primarily on the more limited ESG information companies provide in their public filings, which is more accessible and is reported in a consistent investment analysis.

Nonetheless, researchers and practitioners (Ho, 2020) question whether ESG information is under-reported in public U.S. filings, which happens in part because of companies' failure to identify ESG information as material and in part because of a lack of integration between the corporate risk management, internal controls, and reporting functions that

---

<sup>42</sup> <https://www.ga-institute.com/nc/storage/press-releases/article/ga-institutes-new-research-shows-2024-sustainability-reporting-rose-to-record-levels-as-sp-500r-c/?utm> (last access 14/12/2025)

apply to public filings, and those through which voluntary reports are produced (Jones, 2023).

## **2.3 Research Design**

In the following section, both the rationale for our choice of analysis context and the process of designing our framework are described.

### ***2.3.1 Why the aerospace and defence sector is worthy of investigation***

Since the interest of our analysis was in the identification and the mitigation of ESG risks in companies' risk disclosure, we decided to focus our attention on analysing the A&D sector in the U.S. market.

Starting with the definition of the sector provided by the Sustainable Accounting Standards Board (SASB) through the Sustainable Industry Classification System® (SICS®), we chose to analyse this sector for several reasons, including, on one hand, its weight and impact on society (Deloitte, 2023, 2025) and, on the other hand, the fact that it is an under-researched sector from the point of view of risk mitigation and management tools, especially ESG ones.

Looking more closely at the reasons for our choice, it is necessary to highlight how the global A&D market, which is projected to grow from approximately USD 875 billion in 2025 to over USD 1 trillion by 2029, representing a compound annual growth rate (CAGR) of about 5.8%, has a significant specific weight in technological innovation (Ahmad et al., 2021; Khan, 2023) and supply chain (Ghadge et al., 2010). This specific weight is generated by the nature of the sector itself, which has a complex supply chain with multiple tiers of suppliers and requires the use of advanced technologies and a very high level of security and confidentiality of data and information. At the same time, the specific weight is due to the nature of the challenges that companies operating in this sector have faced and will have to face. In fact, as the “2025 aerospace and defence industry outlook” points out persistent supply chain fragilities and ongoing talent shortages represent some of the most critical risks for A&D organisations, affecting both operational resilience and growth trajectories. At the same time, the report emphasizes the need for companies in the sector to accelerate digital transformation, strengthening advanced digital capabilities through the development of an integrated digital thread that connects engineering, supply chain, manufacturing, and aftermarket activities in order to enhance efficiency, traceability, and decision-making (Deloitte, 2025).

We have also identified previous research dealing with the main risks of the sector, addressing a variety of issues including: technological innovation and using blockchain as a tool that can generate potential opportunities (Ahmad et al., 2021); the elaboration of a risk management framework for aerospace supply chain systems (Ghadge et al., 2010); and the elaboration of a framework of critical success factors for the implementation of Industry 4.0 in the A&D industry (Khan, 2023). On the contrary, we have noticed an almost complete absence of studies aimed at investigating the weight that the specific category of ESG risks has in this sector and the possible existence of specific ways of managing them.

Existing studies have approached the issue of sustainability in the A&D sector either by focusing on the increased attention investors are paying to ESG issues, considering the A&D sector only from the perspective of business ethics breaches and of the potential impact on company value and earnings (Glazerman & Cohen, 2020), or from a corporate governance perspective, examining the drivers for aerospace companies to engage in corporate environmental responsibility (CER) and its impact, with the aim of showing how greater involvement in environmental policy by aerospace industries enhances competitive advantage and market value (Gangi et al, 2022).

Ultimately, the decision to focus on the analysis of the A&D sector is not only linked to its significance but also to the fact that while there is a clear acknowledgement of the importance of implementing sustainable solutions within companies in the A&D sector, in all three aspects (environmental, social and governance), what is missing is a structured analysis of the actual and current level of disclosure of ESG risks, as well as the implementation of specific solutions to mitigate or respond to them.

From our perspective, the lack of studies addressing these issues is also directly related to the controversial link between sustainability and the A&D sector. This ambiguity occurs particularly in terms of investment preferences, which are increasingly shifting towards sustainable investment choices and are characterised by the decision not to invest in A&D stocks “because the A&D firms are involved in manufacturing military weapons, which is identified as a ‘negative’ category impacting the ESG scores of such firms” (Singh et al., 2022, p. 2). However, today the impact of the Russia-Ukraine conflict on financial markets has led to a recalibration of investment priorities and an increase in investment in the A&D sector (Singh et al., 2022).

This last aspect, together with the role of the A&D sector in a global context increasingly focused on ensuring a sustainable future, convinced us of the importance of conducting a study capable of tackling challenging themes such as what ESG risks the companies perceive as the most relevant and how they declare to mitigate them.

### ***2.3.2 The selected companies***

In our analysis we have selected the top companies (i.e., Lockheed Martin, Raytheon Technologies<sup>43</sup>, Northrop Grumman, and Boeing) in the A&D sector listed in the U.S. market (yahoo finance, 2023; DefenceNews, 2023)<sup>44</sup>. In the following table 7, the main data of the selected companies are presented.

---

<sup>43</sup> Raytheon Technologies changed its name to RTX in June 2023.

<sup>44</sup> <https://finance.yahoo.com/news/12-best-aerospace-defense-stocks-155436380.html>;  
<https://people.defensenews.com/top-100/>

**Table 7.** Selected companies

<b>COMPANY</b>	<b>LAST YEAR OF AVAILABLE DATA</b>	<b>REVENUES (billion)</b>	<b>NUMBER OF EMPLOYEES</b>	<b>TOTAL ASSETS (billion)</b>	<b>COMPANY LISTED AT</b>
<b>Lockheed Martin</b>	<b>2023</b>	<b>US\$ 67.60</b>	<b>122,000</b>	<b>US\$ 52.5</b>	<b>NYSE</b>
<b>Raytheon Technologies</b>	<b>2022</b>	<b>US\$ 67.07</b>	<b>182,000</b>	<b>US\$ 158.86</b>	<b>NYSE</b>
<b>Boeing</b>	<b>2022</b>	<b>US\$ 66.61</b>	<b>156,000</b>	<b>US\$ 137.1</b>	<b>NYSE</b>
<b>Northrop Grumman</b>	<b>2022</b>	<b>US\$ 36.60</b>	<b>95,000</b>	<b>US\$ 43.76</b>	<b>NYSE</b>

Source: own elaboration from Companies' websites and the 10-k forms of each company

We have chosen to use Form 10-K, an integral part of the Annual Report, as the basis for collecting the data concerning Item 1A, which contains the risk factors described in Item 105 of Regulation S-K, i.e., information on the principal risks faced by the company, generally listed in order of importance.

Ultimately, the forms analysed for the selected companies are dated 31/12/2022 so that the negative impact of the pandemic can be partially excluded, as the documents only contain references to its residual effects.

### ***2.3.3 The framework of analysis***

We have decided to approach the analysis using a framework that would allow us to answer our research question, i.e., to understand not only whether and how much information on ESG risks is disclosed in the 10-K, but also which risks are disclosed, what their significance is, and how the company intends to respond to and/or mitigate them. For the construction of the framework, we broadly followed the approach of previous literature, which has dealt with the analysis of risk reporting from the point of view of the characteristics of risk disclosure, as well as the possible determinants of risk disclosure (Beretta & Bozzolan, 2004; Jia et al., 2016; Elshandidy et al., 2018).

The first work (Beretta & Bozzolan, 2004) is a key tool for setting up a conceptual model of a multidimensional nature, based on the principle that: “the quantity of disclosure is not a satisfactory proxy for the quality of disclosure” (p. 267). Therefore, the authors propose a framework, which they use for the analysis of ‘four different but complementary dimensions (the content of information disclosed, the economic sign attributed to expected impacts, the type of measures used to quantify and qualify the expected impacts, the outlook orientation of risk communication and the managerial approach to the management of risks)’.

The second work (Jia et al., 2016), building on the framework developed and tested by Beretta and Bozzolan, proposes the use of a finer-grained approach to examine the ‘quality’, ‘quantity’ and ‘richness’ (width and depth) of risk management disclosure, by applying semantic content analysis to all the dimensions and sub-dimensions of the framework, in order to obtain a more detailed analysis of risk management disclosure.

Finally, before going into the details about our model, it is worth noting that we have used, as a starting point, to identify the ESG risks, the labels provided by the SASB<sup>45</sup> in its sector's standards and materiality map. This choice is motivated by the desire for consistency with the U.S. context, since the SASB labels make it possible both to identify the ESG risks that are most likely to affect cash flows, access to finance and the cost of capital and to highlight those that are most relevant to investors (SASB, 2023)<sup>46</sup>.

Now that we have described the fundamentals of our frame, we can move on to a detailed description of it. It classifies the information according to three dimensions and eleven sub-dimensions (see Table 8).

The dimensions and sub-dimensions consist of:

- Width (material label as for SASB, not material label as for SASB, our label).
- Depth (risk description, time, type of measure, economic sign, type of impact).
- Mitigation (type of intervention, time, type of measure).

---

<sup>45</sup> In June 2021, the SASB and the London-based International Integrated Reporting Council announced their combination to form the Value Reporting Foundation (VRF). In August 2022, the IFRS Foundation consolidated the VRF and Climate Disclosure Standards Board with its own newly formed International Sustainability Standards Board (ISSB) and all the open SASB Standards projects were transitioned to the ISSB.

<sup>46</sup> <https://sasb.org/standards/materiality-finder/>

**Table 8.** Analysis framework representation

WIDTH DIMENSION	DEPTH DIMENSION	MITIGATION
<ul style="list-style-type: none"> <li>❖ MATERIAL LABEL (as for SASB) <ul style="list-style-type: none"> <li><b>E</b> → (Energy management; waste &amp; hazardous materials management)</li> <li><b>S</b> → (SOCIAL CAPITAL: Data Security; Product Quality &amp; Safety)</li> <li><b>G</b> → (BUSINESS MODEL AND INNOVATION: Product Design &amp; Lifecycle Management; Materials Sourcing &amp; Efficiency; LEADERSHIP AND GOVERNANCE: Business Ethics)</li> </ul> </li> <li>❖ NOT MATERIAL LABEL (as for SASB) <ul style="list-style-type: none"> <li><b>E</b> → (Physical impacts of climate change )</li> <li><b>S</b> → (HUMAN CAPITAL: Employee Health &amp; Safety; Employee Engagement, Diversity &amp; Inclusion)</li> </ul> </li> <li>❖ OUR LABEL (emerging from disclosure) <ul style="list-style-type: none"> <li><b>E</b> → (New Environmental laws, regulations and policies; Other Environmental risks i.e. reputational risk)</li> <li><b>S</b> → (HUMAN CAPITAL: Attracting talent)</li> <li><b>G</b> → (BUSINESS MODEL AND INNOVATION: New technologies, digital transformation and property rights; LEADERSHIP AND GOVERNANCE: Litigation costs )</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>❖ RISK DESCRIPTION (parts of the 10-K form that justify the choice of classification)</li> <li>❖ TIME <ul style="list-style-type: none"> <li>a. Historical</li> <li>b. Forward-looking</li> </ul> </li> <li>❖ TYPE OF MEASURE <ul style="list-style-type: none"> <li>a. Financial</li> <li>b. Non-financial</li> <li>c. Quantitative</li> <li>d. Qualitative</li> </ul> </li> <li>❖ ECONOMIC SIGN: <ul style="list-style-type: none"> <li>a. Positive</li> <li>b. Negative</li> </ul> </li> <li>❖ TYPE OF IMPACT: <ul style="list-style-type: none"> <li>a. Direct on financial results</li> <li>b. Indirect (through drivers)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>❖ TYPE OF INTERVENTION (type of intervention taken or planned to be taken if the identified risk occurs or will occur)</li> <li>❖ TIME <ul style="list-style-type: none"> <li>a. Ex-ante</li> <li>b. Ex-post</li> </ul> </li> <li>❖ TYPE OF MEASURE <ul style="list-style-type: none"> <li>a. Financial</li> <li>b. Non-financial</li> <li>c. Qualitative</li> <li>d. Quantitative</li> </ul> </li> </ul>

Source: own elaboration

The first dimension (WIDTH) represents the first level of data classification, which is initially subdivided according to a logic of belonging to environmental (E), social (S) or governance (G) issues and then assigned to different types of labels. The labels are divided into: material labels according to the materiality map constructed by the SASB for the A&D sector; labels that fall within the SASB model but are considered non-material at the sector level and for which we have found significant information for the purposes of our analysis; and finally, labels that we have introduced based on our content analysis after examining the 10-Ks.

Looking at the details of the three themes, within the environmental theme (E), we identified five labels.

- **“Energy Management”** and **“Waste & Hazardous Materials Management”**, which are material labels under the SASB model. Their materiality can be explained by the fact that, on the one hand, ‘energy is a critical input to A&D manufacturing processes and an entity’s energy mix, may influence the cost and reliability of energy supply and, ultimately, affect the entity’s cost structure and regulatory risk’ (SASB industry standard, 2023); and on the other hand, ‘A&D product manufacturing may generate hazardous process waste’, therefore, ‘entities face regulatory and operational challenges in managing waste, as some wastes are subject to specific regulations pertaining to their transport, treatment, storage, and disposal.’(SASB industry standard, 2023).
- **“Physical impacts of climate change”**, which is a non-material label according to the SASB model, but which we considered to be related to a risk spotted in the analysed sample and highly relevant to our analysis.
- **“New Environmental laws, regulations and policies”** and **“Other Environmental risks”** are labels introduced by us. In particular, the first deals with tracking and classifying information on risks and impacts generated by changes in the sustainability regulatory landscape; the second is a residual category in which we have included and analysed data on risks and impacts related to the failure to meet stakeholder expectations in relation to companies’ strategies, objectives and commitment to sustainability issues.

Within the social theme (S) we identified two sub-dimensions and five labels.

- The first sub-dimension is **‘SOCIAL CAPITAL’**, which includes the labels **‘Data security’** and **‘Product Quality & Safety’**, both of which are material according to the SASB model. Their materiality can be explained by the fact that on the one hand, the companies in the sector analysed ‘may develop sensitive military and advanced aviation products and may therefore be at a high risk for cyber-attacks’ and be subject to potential ‘regulatory action, legal action, or adversely impact revenues and brand value’ (SASB industry standard, 2023); on the other hand, ‘product safety is an important consideration for A&D entities given the industry’s key role in commercial aviation and military operations’, in fact, ‘incidents could result in financial impacts, including increased costs, regulatory penalties, or brand-value impacts that could adversely affect market share’ (SASB industry standard, 2023).

In addition, regarding this sub-dimension, and considering the labels that make it up, it should be stressed that the concept of social capital should be understood as a concept of social responsibility, mainly related to the impact that the company's activity can have on its stakeholders at the societal level, and only as a reflection on the company's results.

- The second sub-dimension is '**HUMAN CAPITAL**', which includes two non-material labels within the SASB model: '**Employee Health & Safety**' and '**Employee Engagement, Diversity & Inclusion**'; and we have introduced one label: '**Attracting talent**', under which we include data on the risks and impacts associated with one of the sector's key challenges: attracting and retaining new talent capable of responding to the constant need for innovation.

Finally, within the governance theme (G) we identified two sub-dimensions and five labels.

- The first sub-dimension is '**BUSINESS MODEL AND INNOVATION**', which includes two labels considered material by SASB, i.e. '**Product Design & Lifecycle Management**' and '**Materials Sourcing & Efficiency**'. Their materiality is linked to the importance of companies in this sector being able to respond to customer and societal demand for more sustainable products and services; it is connected to their exposure to 'supply chain risks when critical materials are used in products', and it is bound to the 'potential for financial impacts stemming from supply disruptions and volatile input prices' (SASB industry standard, 2023). This sub-dimension also includes a label we have introduced: '**New technologies, digital transformation and property rights**', under which data is collected related to the dimension of technological innovation, which we believe is an indispensable factor in the sustainability risks faced by companies in this sector that they need to be able to manage and mitigate.
- The second sub-dimension is '**LEADERSHIP AND GOVERNANCE**', which includes both a material label according to the SASB: '**Business ethics**', which refers to the fact that companies operating in the sector analysed are 'vulnerable to regulatory scrutiny of business ethics' (SASB industry standard, 2023) due to the particular nature of the operations they carry out; and we introduced a label: '**litigation costs**', which, while referring to ESG issues, addresses them from purely a governance perspective, looking at the potential risks of penalties, claims and lawsuits.

The second dimension (DEPTH) is intended to provide a deeper understanding of all the information embedded in the different themes and labels. More specifically, the data collected are analysed according to the sub-dimensions described below.

- A. '**Risk description**', which briefly lists the parts of the 10-K form that justify the initial and subsequent choice of classification.
- B. '**Time**', which allows data to be distinguished by time to understand whether the identified risk is historical or forward-looking.
- C. '**Type of measure**', where the type of measure implemented within the company is specified, highlighting whether it is a financial measure, i.e. with a direct impact on the company's financial results in terms of both costs and cash flow or a non-

financial measure, i.e. with an indirect impact on the company's performance generated by the use of drivers such as reputation or competitiveness; and where it is, also, highlighted whether the measure is quantitative or qualitative in nature, based on the presence or absence of quantification elements of the risks within the 10-K form.

- D. **'Economic sign'**, which makes it possible to highlight the economic sign of the expected impact of the risk. In the case of an impact characterised by a reduction in revenue and/or an increase in costs, it is classified as negative, and vice versa, it is classified as positive.
- E. **'Type of impact'**, in which the risk is classified according to the type of impact generated, specifying whether the impact is direct or indirect.

The third and final dimension (MITIGATION) represents the most innovative part of our model, as it aims to analyse the type of mitigation and/or reaction that the company expects to have to the potential occurrence of the classified risks; therefore, it serves to understand the type of attitude that the company has towards ESG risks, highlighting its possible proactivity or wait-and-see attitude, allowing us to comprehend the issues on which the company intends to adopt the second one. More specifically, the data is analysed according to the sub-dimensions described below.

- a. **'Type of intervention'**, in which the type of intervention that has been taken or that is planned to be taken if the specific identified risk occurs is specified. Therefore, the concept of intervention is understood as the act or fact of acting in response to something to influence its outcome.
- b. **'Time'**, which makes it possible to understand whether the intervention is or will be implemented before (ex-ante) or after (ex-post) the possible occurrence of the impact of the risk event.
- c. **'Type of measure'**, which classifies interventions according to whether they are financial or non-financial and qualitative or quantitative, following a logic like that used for the dimension DEPTH, subcategory C.

Given the complexity and multi-dimensionality of the framework described above, which requires the classification of information that is both quantitative and qualitative in nature and therefore cannot be categorised by software to be properly completed, we decided to use a manual content analysis, which would allow us to adequately understand the quality of risks and impacts reported in the 10-K forms. Accordingly, we read the whole section of "risk factors" in the 10-k form for each company, then we gathered in an excel spreadsheet the statements corresponding to the coded dimensions. To minimise the risk of limited objectivity in the interpretation of the data and to verify the correctness of their classification and evaluation, we activated a manual keyword search and a double-checking mechanism.

This methodology, which is widely used in the context of corporate disclosure studies and, more specifically, in risk reporting analysis (Ibrahim & Hussainey, 2019), was chosen not only because is a technique characterised by codifying qualitative and quantitative information into pre-defined categories in order to derive patterns in the presentation and reporting of information (Guthrie & Abeysekera, 2006), but also because

it permits repeatability and interpretation of data according to their context (Krippendorff, 1980).

## 2.4 Findings

In the following section, the main findings are presented and discussed, while analytical evidence based on our framework of analysis is available at request.

### 2.4.1 Environmental

Breaking down the analysis of the results by ESG theme, we can see that, regarding the environmental theme (see diagram 1), it shows that there is almost complete agreement between the information considered by the companies as material risks and that considered as such by the SASB materiality map, with the exception of the ‘energy management’ label, on which no company provides any information, in our opinion, because the information on this does not seem to be in line with the risks that can be included in the 10-K form, while more information on energy management and future objectives is included in the sustainability reports.

Moreover, the most innovative element found in our analysis of the environmental dimension is the inclusion of the expectations of the sustainable investor among the financial and non-financial risk factors, with the identification of mitigating tools in accordance with the nature of the risk and, therefore, exclusively on an ongoing basis. This perspective, albeit with a negative view of the risk of failure to meet expectations, emerges from the information collected under the residual label of ‘other environmental risks’, demonstrating the growing need for A&D companies to embark on a path of commitment to sustainability objectives, not only to respond to institutional pressure but also to try to overcome the negative relationship between investment preferences and the sector itself.<sup>47</sup> Finally, the risks are, in most cases, considered from a forward-looking perspective<sup>48</sup> and are expected to have a negative impact on financial performance, although non-quantitative information is provided, and the mitigation and response tools are almost always characterised by both a wait-and-see and a proactive attitude<sup>49</sup>.

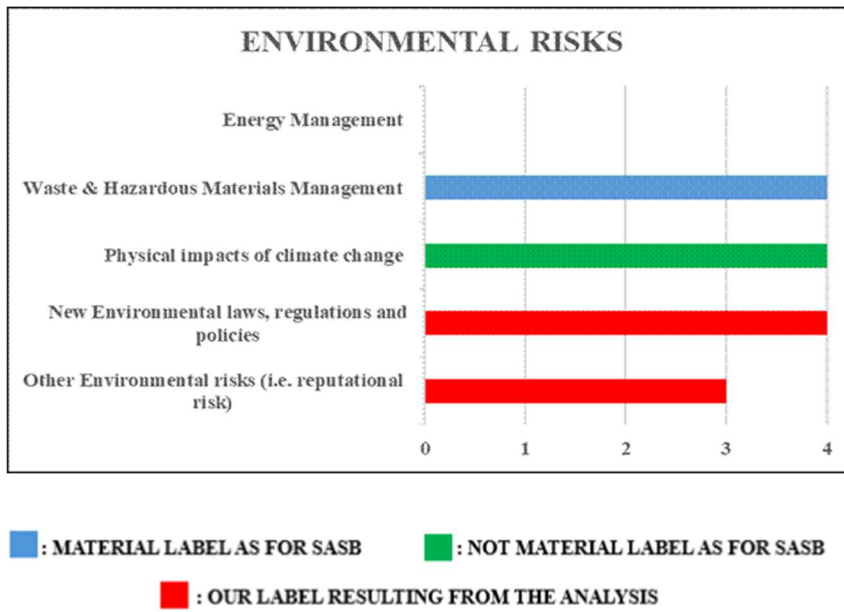
---

<sup>47</sup> No information was found for ‘Lockheed Martin’ that could be categorised under the residual label.

<sup>48</sup> Except for the label: ‘**Waste & Hazardous Materials Management**’.

<sup>49</sup> Purely wait-and-see attitude for the label: ‘**Waste & Hazardous Materials Management**’

**Diagram 1.** Number of companies disclosing information about environmental risk



Source: own elaboration

### 2.4.2 Social

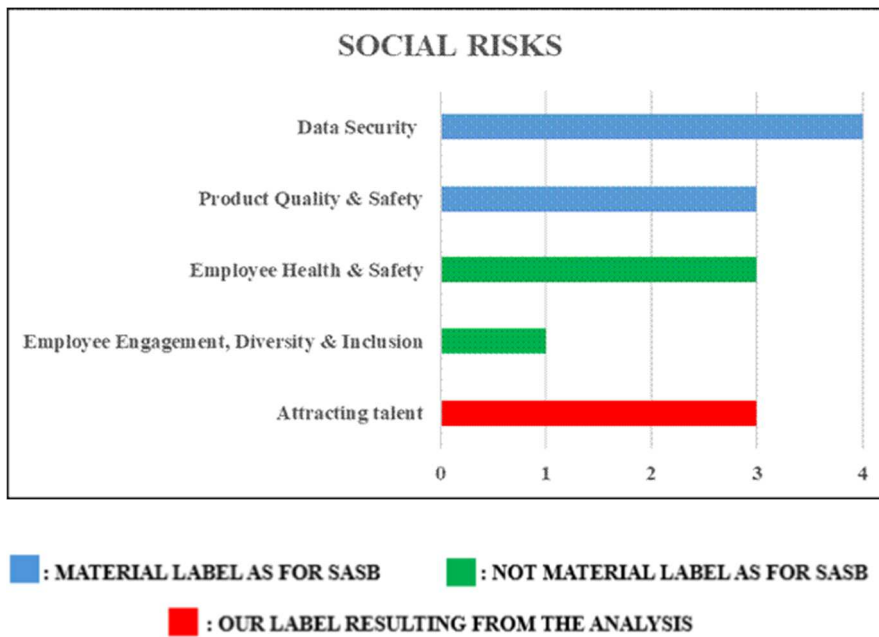
With regard to the Social themes (see diagram 2), it should be noted that there is no complete coincidence between the risks considered by the companies as material and the SASB materiality map. Information provided on labels such as ‘Data security’ and ‘Product Quality & Safety’ are provided as expected and in line with the SASB map. In addition, labels concerning the risks related to Human Capital (i.e. Employee Health and Safety, Employee Engagement, Diversity and Inclusion) are perceived by the companies as the main challenges for the business, while they are not material risks for the A&D sector following the SASB guidance. However, information on the mitigation of those risks is missing.

The most noteworthy elements concern the labels: ‘Data security’ and ‘Attracting talent’ risk mitigation.

As for data security, greater proactivity on the part of companies in the area of risk mitigation and management emerges, both because it is a typical risk of the sector and because it concerns an issue with respect to which companies are seeking to constantly invest in the search for new security tools. To ensure their competitiveness, companies must abandon the wait-and-see attitude that characterises their behaviour concerning the risks inherent in the introduction of new environmental regulations.

Concerning the theme of ‘Attracting talent’, all companies except one declare they depend on the recruitment and retention of qualified personnel, and failure to attract, train and retain such personnel could seriously harm the business. However, as for the mitigation of the risk, the information provided is generic and focuses on the relevance of successfully managing the short and long-term transfer of critical knowledge and skills, including leadership development and succession planning throughout the business.

**Diagram 2.** Number of companies disclosing information about social risk



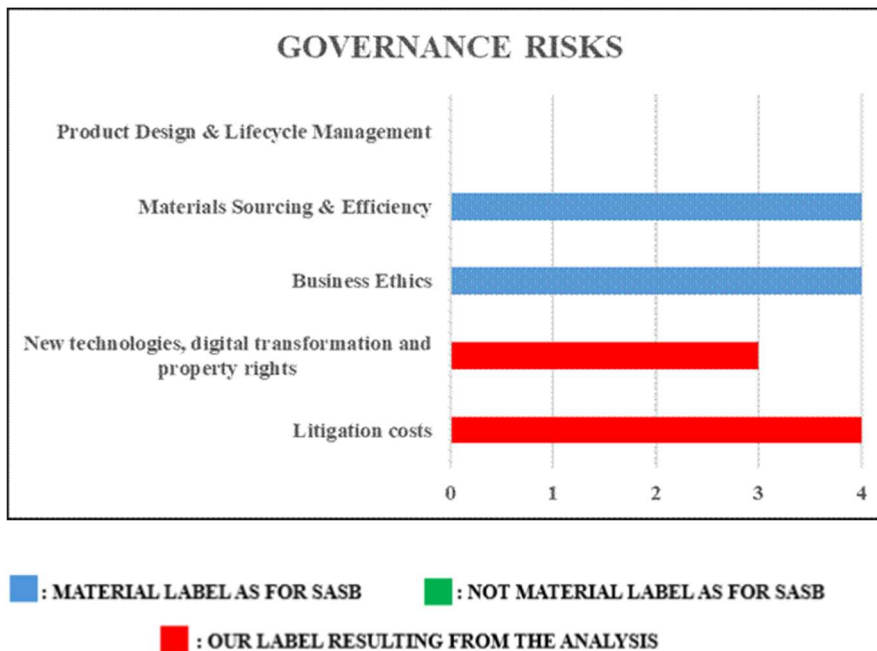
Source: own elaboration

### 2.4.3 Governance

If we break down the analysis with regard to the governance dimension (see diagram 3), we find that companies particularly highlight risks related to supply chain management and supply chain disruption risk, also highlighted by industry sources (2025 aerospace and defence industry outlook), which are reported under the label ‘Material Sourcing & Efficiency’. Surprisingly, no firms signal the topic Product Design & Lifecycle Management as the main risk; however, it is sometimes referred to in the label we have introduced as ‘New technologies, digital transformation and property rights’ based on what is highlighted by industry reports (Deloitte, 2023, 2025).

The risk that emerges as most relevant is related to the identification and adoption of new technologies in line with evolving knowledge and customer expectations. Companies are aware that design, manufacture and service products that incorporate advanced technologies involve risks to respect the timing of delivery or to achieve required regulatory approval. For these reasons, companies adopt a proactive approach to risk mitigation and state that they invest substantial amounts in research and development efforts to pursue advancements in a wide range of technologies, products and services. With reference to the label ‘Business Ethics’, we note the awareness of companies that operate in an industry subject to tight government controls and the need to mitigate this risk through employee training programs and compliance control systems that also cover the supply chain. Finally, the label ‘Litigation costs’, addressing the potential risks of penalties, claims and lawsuits, emerges as relevant, even if it is not material according to the SASB.

**Diagram 3.** Number of companies disclosing information about governance risk



Source: own elaboration

## 2.5 Concluding remarks and future research

Our concluding remarks address the main findings that have emerged from the analysis.

Our analysis of the 10-K forms of top A&D companies shows that the description of material risks and impacts follows the approach identified by the SEC, which recommends that disclosure should discuss the ‘most significant’ factors that make the company’s securities speculative or risky. Consistently, companies provide information that is forward-looking in nature and that is expected to have a negative impact on the company’s financial performance.

With regard to mitigation actions, it is difficult to identify proactivity on the part of companies. In general, the behaviour is passive, indicating possible mitigation actions only when the event that represents a threat occurs but cannot be reasonably estimated ex-ante in terms of occurrence and magnitude of impact. In addition, for some identified risks, no mitigation action is presented because they are either outside the direct control of the company or are completely uncertain and, therefore, not subject to any type of assessment in terms of mitigation/reaction.

This behaviour is due to the willingness of companies to focus only on those risks with a high degree of uncertainty, which are difficult to predict and mitigate through risk management techniques; this can be explained by the company's liability associated with the Form 10-K and therefore the desire to make clear what is beyond the company's control in order to reduce potential lawsuits and litigation costs.

This would also explain the great uniformity of the information provided by companies in the same sector, which can be explained in light of a mimetic attitude, in order to respond formally to the demands of regulators and investors, but to reduce the cost of

information and not to expose themselves to reputational risks or breaches of privacy that could be detrimental to the company's competitiveness. On the other hand, such an attitude also leads to boilerplate information, i.e., information that protects the company, but has no value for analysts and investors.

Proactivity in risk mitigation emerges only for some specific issues: the new regulatory and financial market expectations on ESG risks, ensuring data security, attracting talent, and embracing new technologies. This demonstrates the relevance of risks concerning knowledge governance that characterises the industry and that, from our viewpoint, will require specific deepening at the level of industry-specific ESG standards.

These topics, which are vital for KIBSs, are currently under-investigated and underdeveloped according to current standards such as the ESRS, ISSB standards<sup>50</sup>, and GRI standards. They require in-depth analysis at the sector-specific level.

U.S. and European regulators are taking different approaches to defining the content of companies' sustainability disclosures. The different perspectives depend on the primary interests of the governments. In a nutshell, we talk about protecting the stock market in the U.S. and supporting the green transition in Europe.

If the objective is to ensure the efficient functioning of the stock market in line with efficient market theory (Demartini, 2004), the primary interest of the regulator is to ensure that investors have all the information to allocate resources rationally according to their preferences in terms of expected returns, risk and sensitivity to ESG issues. If, on the other hand, the aim is to promote environmental and social policies in line with the European Green Deal, the primary purpose of the EU CSRD becomes to support the transition process of companies by facilitating the inflow of financial resources from banks, sustainable investors and the allocation of government incentives (Palea & Drogo, 2020).

Accordingly, it is worth noting that while US regulation requires companies to provide information about risks, such as factors that could materially affect their results (i.e. cash flow, earnings, financial position) in the interest of investors, European regulation applies a double materiality approach, requiring companies to provide information about their impact on society as well.

As a result, as we have seen in our analysis, US companies will seek to provide information on the key factors that make the company speculative or risky in order to avoid potential shareholder litigation. European companies, on the other hand, will need to provide ESG information that is material from a risk/opportunity perspective in order to demonstrate how they intend to meet the ESG targets set out in the regulations and in their strategic plans.

Building on these findings, we envisage two possible avenues for future research.

The first concerns the harmonisation of ESG disclosure. The primary interests of regulators are not aligned, which is reflected in the current debate on the harmonisation

---

<sup>50</sup> <https://www.ifrs.org/supporting-implementation/supporting-materials-for-ifrs-sustainability-disclosure-standards/>

of accounting for ESG information and it creates complexity for standard setters, users and providers of ESG information.

The second strand of research concerns the impact of new regulatory scenarios on control systems and risk management. As stated in our theoretical background, there is a mutual influence between risk management and risk disclosure, which is noteworthy to be investigated for its practical and research implications. In order to adequately address this latter topic, an in-depth approach using case studies and action research methodologies will be required.

## **THIRD CHAPTER**

### **Beyond CSRD Compliance in the Aerospace & Defence Sector: Mapping Organisational Responses and Feasible Transformative Change Trajectories**

#### **Summary**

The CSRD and the ESRS are intended to improve the quality and comparability of sustainability information in the EU, while also fostering deeper organisational integration of sustainability beyond disclosure. Yet, whether such a reporting mandate can become a “norm of practice” and trigger substantive organisational change remains an open empirical question, particularly in high-sensitivity sectors. This chapter examines the early transformative potential of the CSRD in the A&D industry, where strong interpretive schemes, information restrictions, and a dominant governmental stakeholder intensify compliance risk and shape organisational responses. Conceptually, we combine Oliver’s (1991) typology of strategic responses with Laughlin’s (1991) models of organisational change, treating longer-term change trajectories as a medium- to long-term evolution of near-term strategic responses. Empirically, we adopt a multimethod design that integrates (i) a content analysis of sustainability reporting produced around the CSRD implementation period, including the 2024 post-entry-into-force report, and (ii) qualitative interviews with a focal firm (Alpha S.p.a., Italy). Findings show that early CSRD-related responses are hybrid and dynamic, moving from anticipatory to pragmatic acquiescence while coexisting with compromise and manipulation. We refine the concept of manipulation by documenting both external institutional work (engagement in ESRS debates and sector narratives) and internal strategic reconceptualisation (leveraging financial materiality to legitimise sustainability within business functions). Double materiality emerges as a key mechanism that accelerates and structures an advanced reorientation—substantial structural and process change without a full ideological “colonisation”. The study contributes by linking observable short-term responses to plausible longer-term change trajectories and by clarifying contextual limits to the CSRD’s morphogenetic ambition under regulatory uncertainty.

### 3.1 Introduction

Heightened societal concern about sustainability has spurred a wave of regulatory initiatives across jurisdictions (KPMG, 2024<sup>51</sup>). In Europe, the CSRD and the related ESRS form the centerpiece of a broader EU's Sustainable Finance Strategy aimed at enhancing the quality, comparability and decision-usefulness of sustainability information (European Commission, 2020<sup>52</sup>). This orientation aligns with the strand of literature that views regulation as a lever to improve disclosure and discharge accountability to stakeholders (e.g., Deegan, 2002). Yet comparative evidence cautions that formal legislation alone may not suffice to create a norm of practice or to produce deeper institutional change (Bebbington et al., 2012; Luque-Vílchez et al., 2024). From a normativity perspective, what ultimately matters is how organisations interpret, operationalise, and routinise new requirements: organisational responses can consolidate emerging reporting norms—or confine the reform to procedural compliance.

Although the CSRD is framed as a reporting reform, its scope and architecture plausibly operate as a catalyst for internal change. The transposition of the CSRD is expected to generate four major shifts in reporting practice—an expanded reporting perimeter, mandatory ESRS adoption, assurance requirements, and digital tagging—each of which creates implementation challenges for in-scope firms and, potentially, for value-chain partners. These shifts are not merely technical. They can require revisions to governance arrangements, data infrastructures, internal controls, coordination across functions, and the strategic prioritisation of sustainability-related risks and impacts. At the same time, prior work shows that attempts to modify accounting control practices often underperform relative to expectations (García-Torea et al., 2023), even while also recognising that well-designed regulation can be a necessary condition for meaningful change (Leong & Hazelton, 2019). Building on this dual insight, this chapter explores the transformative potential embedded in the CSRD's accounting prescriptions.

Our starting point is that organisational change frequently unfolds as a gradual, cumulative process that can begin before a regulation takes effect, as firms anticipate requirements during the approval phase (Cooper et al., 1996). Accordingly, we conceptualise the CSRD as an “environmental disturbance” (Laughlin, 1991) that may set in motion different pathways of change over time—from superficial adjustments to deeper shifts in interpretive schemes and values. The study asks whether early responses to the CSRD are confined to enhanced disclosure or whether they signal broader reconfigurations of structures, processes and strategic commitments. The challenge of analysing organisational change in the immediate aftermath of a newly implemented regulation—such as the CSRD, amid pronounced environmental uncertainty—was evident from the outset. Because only a short period has elapsed since the Directive took effect, the longitudinal dynamics to which Laughlin (1991) refers are not yet empirically traceable within our observation window. To generate actionable evidence in the short term, we therefore focus on the strategic responses that organisations activate when facing

---

<sup>51</sup> <https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2024/11/the-move-to-mandatory-reporting-report.pdf?utm>

<sup>52</sup> [https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth\\_en](https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth_en)

institutional pressures. Consistent with this aim, we combine two complementary lenses. First, we draw on Laughlin (1991) to conceptualise the longer-term trajectories of change—the morphostatic and morphogenetic outcomes that may unfold over time following an environmental disturbance. Second, we employ Oliver (1991) to specify the antecedents and to delineate the spectrum of strategic responses that organisations deploy in the near term, ranging from passive conformity to active resistance.

To address this research question, in line with prior literature (Luque-Vílchez and Larrinaga, 2016), we will conduct a multimethod empirical investigation, consisting of a content analysis of the reports produced years close to the implementation of the new regulation, and of the report produced in 2024 (after regulation enter into force) and qualitative interviews with a company (Alpha S.p.a.) in the aerospace and defence (A&D) sector in Italy. The analysis will focus on a sector that, despite having a significant specific weight at the global level, is inherently characterised by an ambiguous relation to ESG issues (Singh et al., 2022). Moreover, interest in this sector is also driven by the main challenges it will have to face, such as supply chain disruptions, talent shortages and the need to increase the level of digital technologies and capabilities (Deloitte, 2023, 2025), which present some thematic relation with the main information requirements of the new European regulations.

This study offers three interlinked contributions. First, we show that the short-term strategic responses described by Oliver bear a systematic relation to Laughlin's organisational change trajectories. When we observe patterns akin to manipulation or defiance, the ensuing processes resemble colonisation or reorientation; by contrast, when substantive acquiescence and negotiated compromise prevail, what emerges are evolutionary paths. This regularity functions as a theoretical bridge between what can be observed now and what is likely to unfold over time, providing useful clues even within the temporal constraints of the CSRD's early phase. Second, drawing on field data, we enrich theory through empirical substantiation. We identify hybrid responses that do not fit neatly within Oliver's ideal types and propose a refined extension of his typology for the context of mandatory sustainability reporting. In accordance with Kapplmüller et al. (2025), we also highlight the consideration of double materiality as a dynamic mechanism that can legitimise sustainability within operational and business functions. Third, responding to calls to investigate organisational change under the CSRD (García-Torea & Luque-Vílchez, 2025) and to the broader scarcity of in-depth, rigorous evidence on the effects of mandatory reporting (e.g., Christensen et al., 2021; Hummel & Jobst, 2024), the study offers practical insights for public officials, regulators, companies, and civil society: it helps to discern when—and through which organisational mechanisms—a reporting mandate can seed deeper organisational transformations beyond mere compliance.

The remainder of the chapter is organised as follows. Section 3.2 develops the theoretical framework by explaining the connection between Laughlin's organisational change models and Oliver's strategic responses. The focus of Section 3.3 is on the relevant regulations for the A&D sector and the justification of the Alpha S.p.a. case study, with a description of the empirical setting. The methodology, characterised by a multimethod approach, is presented in Section 3.4. Section 3.5 explains and connects the findings from the content analysis and the semi-structured interviews. Finally, sections 3.6 and 3.7 discuss implications and conclusions.

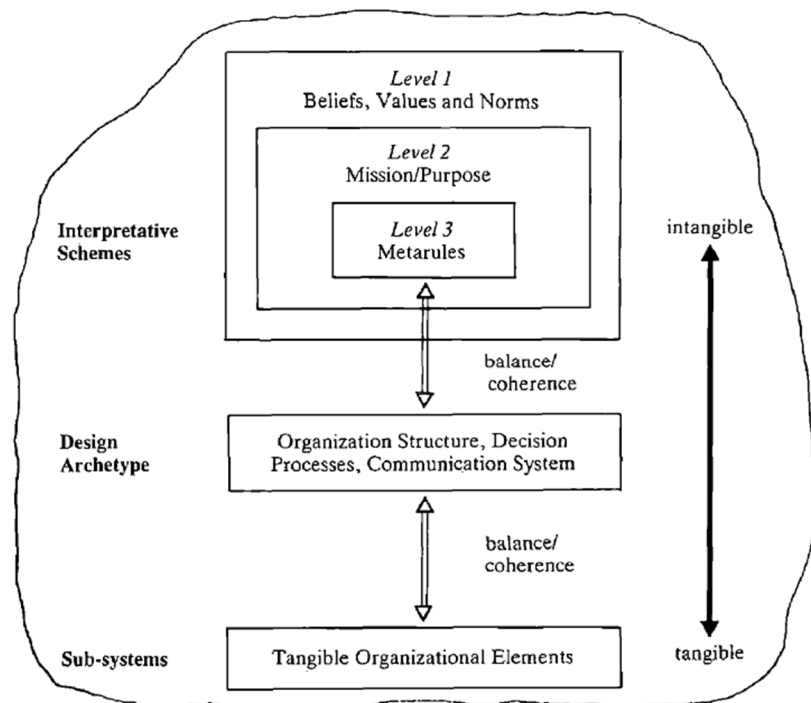
## 3.2 Theoretical framework

### 3.2.1 Laughlin organisational change theory

The concept of *organisational change* is progressively gaining prominence, not only within the realm of organisation theory, where it has long been a subject of scholarly inquiry (Greenwood and Hinings, 1988, 1993; Laughlin, 1991; Cooper et al., 1996), but also across the broader disciplines of management and accounting. In the field of accounting, the study of organisational change is becoming increasingly crucial for understanding how accounting practices evolve in response to shifting regulatory frameworks, technological advancements, and organisational restructuring. Additionally, theoretical insights regarding organisational change are essential in sustainability accounting as it provides frameworks and insights for understanding how organisations transition towards more sustainable accounting practices. In order to investigate the relationship between organisational change and sustainability accounting, it is essential to provide a definition of the relation between the two terms that constitute the complex concept of organisational change, i.e. change and organisation.

Laughlin's theory (1991) offers a useful framework for understanding it. This theory posits that the model of an organisation is characterised by a systematisation of tangible and intangible elements inseparably connected. As illustrated in Figure 5 below, this model consists of a systematic combination of interpretative schemes, design archetypes and subsystems.

**Figure 5.** Model of organisations



Source: Laughlin (1991)

The interpretive schemes represent the set of metarules or paradigms, which, being embedded in systems and structures, have the purpose of directing culture (beliefs, values and norms) and mission (purpose, broad programmes for direction of action) of the organisation (Levy, 1986). They are connected with a two-way relationship to the design archetypes, which can be defined as the set of core processes and systems of an organisation that embody the interpretative schemes (Greenwood and Hinings, 1993) or, more precisely, as the set of organisational structure, decision-making processes and communication system, placed in a central position between the values in the highest sense and the tangible sub-systems. The latter, being the tangible elements of an organisation, are designed with the guidance of design archetypes to reflect the perspective of the organisation's core values.

It is evident that the organisational model under scrutiny is distinguished by a dynamic equilibrium between design archetypes, interpretative schemes and sub-systems, which collectively embody the state of organisational inertia towards which organisations tend to orient themselves (Miller and Friesen, 1982). Within this paradigm, the prevailing perspective is delineated as “the norm”. According to Laughlin's view, once an organisation has reached this state of inertia, it tends to be “change resistant”.

Fernández- Chulián et al. (2024) posit that the stability of an organisation is facilitated by loose coupling and sensemaking. The concept of loose coupling enables organisational elements to preserve their distinct identities and independence, thereby minimising risks, containing disruptions, and ensuring that local adjustments do not adversely impact the entire organisation. Conversely, sensemaking, by establishing a social reality for organisational members, serves as a unifying force between the loosely connected elements of the organisation, thereby preserving the distinct identities and functions of these components (Weick, 1976).

It is only under the influence of a source of disturbance (i.e. an “environmental disturbance”) that an organisation is driven to change from one state of stability to another, undergoing a phase of “schizoid organisation”.

The change is represented by a delegitimization of values and beliefs, which may entail a modification in design archetypes or interpretative schemes (Laughlin, 1991; Greenwood and Hinings, 1988). More precisely, “Once the disturbance has happened it will ‘track’ (Greenwood and Hinings, 1988, p.294) its way through the organisation even though ‘... no single end result for any disturbance’ (Laughlin, 1991, p.210) can be predetermined.” (Broadbent & Laughlin, 2005, p.9). There are several tracks that a change can go through, as defined in Table 9 below: Inertia, Rebuttal, Reorientation, Colonisation and Evolution. Except for Inertia, the other tracks may be categorised as either first-order (Morphostatic change) or second-order change (Morphogenetic change) (Smith, 1982; Levy, 1986; Robb, 1988). Morphostatic change signifies the alteration of peripheral elements of the organisation, legitimised by prevailing interpretative schemes. Conversely, morphogenetic changes entail alterations in the interpretative schemes through an impact on the genetic code of the organisation, which will subsequently be reflected in the organisation.

**Table 9.** Different tracks of organisational change

<b>TRACKS</b> (Greenwood and Hinings, 1988; Laughlin, 1991; Gray, 1995)	<b>NO CHANGE</b>	<b>Inertia:</b> this concept encapsulates the aspirational state of the organisation, wherein it is devoid of any disturbance.
	<b>MORPHOSTATIC CHANGE</b>	<b>Rebuttal:</b> there is no disturbance of the equilibrium based on interpretative patterns. There may be a small fluctuation or a slight change, but the organisation is able to return to its original state after the disturbance (Gray, 1995).
		<b>Reorientation:</b> minor alterations are affected in the subsystems and design archetypes with a view to consolidating the interpretative schemes, which remain unaltered.
	<b>MORPHOGENETIC CHANGE</b>	<b>Colonization:</b> certain members of the organisation are responsible for the promotion of novel values, giving rise to a schizoid position. This has the effect of engendering a tension between two contradictory sets of ideas and values.
		<b>Evolution:</b> the change is characterised by the involvement of all organisational actors and elements, including interpretive schemes.

Source: own elaboration

In general, the most prevalent forms of change are reorientation and colonisation. This is because an organisation that is entirely closed to change (rebuttal) is unlikely to survive, and it is implausible that all organisational actors will agree to a change in the patterns of interpretation (evolution). Furthermore, Greenwood and Hinings' (1988) seminal work posits that several factors may exert an influence on the tracks taken by the change process. These include the strength of the disturbance, the level of commitment of participants to the interpretative schemes and design archetypes, the power and position of those committed to the organisation's current interpretative schemes, and the organisational competencies and capabilities to be open to change. Yet while Laughlin's theory makes it possible to track change, the key concept is that the trajectory can never be predetermined but can only be described over time.

The dynamic nature of accounting requires continuous adaptation to new standards, digital innovations, and performance measurement techniques, making change a central concern for both practitioners and researchers. As a result, organisational change is a key

factor in ensuring financial transparency, compliance, and the effective management of resources within companies. The pertinence of organisational theory is substantiated by the profound interconnection between the notion of organisational change and that of accounting change, the latter being distinctly embedded within the former (Broadbent and Laughlin, 2005). In essence, accounting can be regarded as a mechanism that furnishes organisational actors with the diverse instruments employed to proactively address the disturbances along the various pathways (Tracks) of organisational change. Organisational change theory has been utilised in the investigation of numerous aspects, including the impact of changing management systems on accounting practices (Hassan, and Mouakket, 2016), alterations in management accounting systems (Gurd, 2008; Fiondella, et al., 2016), and the potential for accounting to become more 'enabling' within a dynamic micro-organisational context (Masquefa et al., 2017).

In the particular case of sustainable accounting, organisations face mounting pressure from stakeholders, including governments, consumers, and investors, to operate in an environmentally and socially responsible manner. This dynamic requires a dual focus: adapting organisational structures and processes to support sustainability objectives and leveraging sustainability accounting as a tool to measure and communicate progress.

The frameworks for organisational change proposed by Greenwood and Hinings (1988, 1993, 1996) and Laughlin (1991) have been revisited by scholars exploring the relationship between social and environmental accounting and organisational transformation (e.g. Bouten and Hoozée, 2013; Contrafatto and Burns, 2013; Larrinaga et al., 2001; Narayanan and Adams, 2017; Rodríguez-Gutiérrez et al., 2019). It is therefore evident, as highlighted by Garcia-Torea et al. (2023), that the theme of promoting organisational change through the implementation of sustainability practices should assume a role of relevance in both accounting and organisation studies. Indeed, the complexity of the topic necessarily requires an interdisciplinary approach to understand the ability of such practices to generate effective organisational change. However, despite the pertinence of this subject, the dearth of organisational studies concerning the transformative capacity of sustainability accounting has been emphasised (Garcia-Torea et al., 2023). Moreover, the ambiguity of the relationship between organisational change and sustainability accounting has been highlighted, given the absence of a linear perspective on the capacity of sustainability accounting to engender authentic organisational transformation. Gray et al. (1995) called for the study of the role of accountants and accounting as enablers of more sustainable organisational change. In more detail, the concept of sustainability accounting as a catalyst for "emancipatory" change is explored (Gray, 2002, p. 689; Georgakopoulos & Thomson, 2008) with the aim of fostering a more harmonious relationship between the human and natural worlds (Hopwood, 2009, p. 434).

Within the accounting literature, some studies recognise the ability of sustainability accounting to initiate a process of change or by influencing internal decision-making processes (Albelda-Pérez et al., 2007; Arjaliès & Mundy, 2013; Contrafatto & Burns, 2013; Fraser, 2012; Gunarathne & Lee, 2015; Narayanan & Boyce, 2019; Passetti et al., 2018) or in case it is mandatorily required (Leong & Hazelton, 2019) or finally in case it is associated with integrated reporting (Cerbone & Maroun, 2020; Le Roux & Pretorius, 2019; McNally & Maroun, 2018).

Conversely, other studies have indicated that the change, generated by sustainable accounting models used as external mechanisms to communicate non-financial information to stakeholders, is perceived as exclusively symbolic and not substantive (Adams & McNicholas, 2007; Higgins et al., 2019; Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Vinnari & Laine, 2013). Furthermore, Spence's (2009) standpoint posits that sustainability accounting, despite its radical and emancipatory objective, is frequently co-opted by influential entities, thereby serving as a mechanism to perpetuate the status quo rather than effect authentic transformation. Moreover, the most critical dimension within the extant literature perceives sustainability accounting as a potential impediment to organisational change, manifesting through a contrived facade of transformation (Tregidga et al., 2014).

From another perspective, the process of change triggered by sustainability accounting should be conceptualised as a cumulative process (Contrafatto and Burns, 2013) and of gradual sedimentation (Cooper et al., 1996). The concept of sedimentation is linked to organisational change through the idea that organisations do not change in a linear or entirely disruptive manner. Instead, past structures, practices, and institutional norms persist and layer over time, influencing how change unfolds. This concept, as posited by Cooper et al. (1996), pertains to the notion that established organisational structures, practices, and institutional norms persist and accumulate over time, exerting a profound influence on the nature and pace of organisational change. This phenomenon can be conceptualised as a form of organisational inertia, whereby prior organisational logics and rules continue to influence current practices even as external pressures for change exert influence. Consequently, sedimentation could offer an explanation for the resilience of certain organisational elements despite the presence of external pressures for transformation, leading to the emergence of hybrid forms rather than complete transformation. This dualistic nature of sedimentation functions as both a constraint and an enabler of organisational change, underscoring its multifaceted role in organisational dynamics. While it can impede radical transformation by preserving older structures, it also fosters continuity and stability, enabling organisations to evolve in a manner that integrates tradition and innovation.

The notion of organisational change has a potential nexus with sustainability accounting, through the function of corporate sustainability communication (i.e. public commitments, sustainability reports, marketing campaigns, stakeholder engagement) in effecting incremental, stepwise transformation within organisations (Reppmann et al., 2025). Corporate sustainability communication (in both internal and external forms) does not merely reflect existing sustainability efforts, but actively shapes the manner in which organisations implement sustainability practices, including sustainability accounting. The gradual and iterative nature of sustainability-related changes within organisations is well illustrated by the role of sustainability accounting in this process. Initially, the accounting function is responsible for introducing basic reporting mechanisms, and over time these are expanded in line with growing expectations from both internal and external stakeholders. It is clear that sustainability accounting plays a crucial role in facilitating stepwise organisational change, enabling organisations to respond to the pressures from stakeholders (investors, regulators, consumers) by providing structured, standardised reporting on their sustainability performance. This, in turn, reinforces the need for ongoing organisational adaptation to meet evolving sustainability norms.

Similarly, considering the accounting literature, Rodríguez-Gutiérrez et al. (2019) focus on integrated reporting (IR) as a potential driver of deep transformative change, acknowledging that reporting is not just a reflection of change but also a mechanism that shapes organisational behaviour. The mere disclosure is not enough for transformation, what matters is how reporting and communication influence actual decision-making. Indeed, although reporting can encourage organisations to adopt greater sustainability, the process is frequently protracted and uneven. Consequently, there is a risk of symbolic sustainability efforts, where companies engage in integrated reporting or sustainability communication without implementing profound, structural changes. Integrated reporting and sustainability communication have the capacity to drive organisational change; however, the extent and depth of this change depend on how companies engage with these tools. Evidently, they are both mechanisms for gradual organisational transformation; nevertheless, neither guarantees deep change unless accompanied by substantive internal shifts.

In accordance with the framework proposed by Laughlin, the aforementioned internal shifts may be generated by a disturbance that impacts organisational stability. Such disturbances may originate from various sources, including environmental pressures, public and stakeholder expectations, pressure from international markets, reputation and competitive advantage and certification and regulatory requirements. As emphasised by González et al. (2006), the presence of hard pressures from the external environment, such as stringent regulatory enforcement, can increase the likelihood of generating transformational and morphogenetic changes. These changes have the potential to generate concrete positive impacts at the societal level. Furthermore, Bouten and Hoozée (2013) have demonstrated that environmental disturbances, such as the implementation of new regulations, can result in changes in reporting and management accounting.

As outlined in the Introduction, in order to achieve the goals, set by the Green Deal, the EU has defined a new plan for sustainable finance and investment and developed a package of measures on sustainable finance, such as the Taxonomy Regulation, the SFDR and the CSRD. The latter, although presenting itself as a directive on sustainability reporting, could act as a catalyst for organisational change, requiring companies to re-evaluate their internal processes, governance structures and strategic priorities to integrate sustainability into their “DNA”.

While the new Directive could be regarded as a disturbance, and while there is some literature suggesting that regulation is the only means of improving reporting quality and inducing mandatory disclosure (Deegan, 2002; Leong & Hazelton, 2019); However, it has been noted that regulation in itself is not sufficient to ensure the initiation of a process of organisational change, but rather, the latter is only triggered in the presence of specific structural and contextual conditions that allow regulation to actualise its potential impact (Luque-Vilchez & Larrinaga, 2016; Luque-Vílchez et al., 2024; Antonini & Gomez-Conde, 2024). Specifically, a genuine change in reporting is contingent on a concomitant change in the management system, in its absence, the former cannot exist (Antonini & Gomez-Conde, 2024).

In conclusion, although some authors have approached the study of the subject of organisational change generated by the introduction of a regulation, for example by focusing on the change of environmental management control systems (Antonini &

Gomez-Conde, 2024) or on the role of double materiality assessment in social and environmental accounting as an organisational change process (Kapplmüller et al., 2025), there are no studies on the transformative potential of the CSRD and, more generally, on the capacity of a regulatory tool in generating organisational change through new standardised reporting requirements. The aim of this work is to assess the CSRD potential ability to foster the development of a corporate culture marked by sustainability, not just superficially, but within the framework of the companies' interpretative schemes (core values), using the lens of organisational change theory (Laughlin, 1991). Finally, given the scarcity of in-depth insights and empirical evidence on mandatory sustainability reporting (Christensen et al., 2021; Hummel & Jobst, 2024), this work will respond to the need for a more rigorous investigation of its impact and effectiveness to the benefit of policy makers, regulators and other stakeholders involved (i.e. NGOs).

### ***3.2.2 Oliver's strategic organisational responses***

The challenge of analysing organisational change in the context of a recently implemented regulation, such as the CSRD, characterised by a high environmental uncertainty, was recognised from the outset. Because only a short time has elapsed since the Directive took effect, the longitudinal processes to which Laughlin (1991) refers are not yet empirically traceable within our observation window. This is not a limitation of Laughlin's framework; rather, it reflects the temporal constraints of the present study. To generate actionable evidence in the short term, we therefore focus on the strategic responses that organisations activate when facing institutional pressures.

Accordingly, and in line with the aims of the chapter, we combine Laughlin's framework—which we use to conceptualise the longer-term trajectories of change likely to emerge over time—with that of Oliver (1991), which specifies antecedents and delineates the spectrum of strategic responses organisations deploy, from passive conformity to active resistance. In this view, the organisational change models described by Laughlin are construed as the long-term outcomes of the short-term strategic responses captured by Oliver. The latter is based on identifying specific antecedents — factors that could influence an organisation's strategic responses — and describes the possible responses organisations use to cope with institutional pressures. These range from passive conformity to active resistance. In this vein, the models of organisational change described by Laughlin are considered to be the long-term results of these strategic responses. Oliver's theory is predicated on the assumption that, given the high level of institutionalisation in which organisations operate, characterised by pluralism and complexity (Greenwood et al., 2011; Contraffatto et al., 2025), organisations' responses to macro-level contextual changes, such as the introduction of a new regulatory requirement, may differ (Esteban-Arrea and Garcia-Torea, 2022). The identification of strategic responses is contingent upon an understanding of the underlying reasons, the relevant parties, the methods by which institutional pressures are exerted, and the nature of the pressure exerted. This involves the analysis of the type of pressure exerted, that is to say, the identification of the predictors of strategic behaviour (causes, constituents, content, control, and context) as illustrated in Table 10 below.

**Table 10.** Antecedents of strategic responses

INSTITUTIONAL FACTORS	RESEARCH QUESTIONS AND PREDICTIVE DIMENSIONS
<b>Cause</b>	Why the organisation is pressured to conform, based on legitimacy/social fitness and efficiency/economic fitness drivers.
<b>Constituents</b>	Who exerts institutional pressures, considering the multiplicity of constituent demands and the organisation's dependence on institutional actors.
<b>Content</b>	What norms or requirements the organisation is expected to meet, assessed through goal consistency and the degree of discretionary constraints imposed.
<b>Control</b>	How institutional pressures are exerted, either through legal coercion/enforcement or via voluntary diffusion of norms.
<b>Context</b>	In what environmental setting pressures arise, shaped by environmental uncertainty and interconnectedness.

Source: own elaboration based on Oliver (1991)

Depending on the variation and combination of these antecedents, companies' strategic responses can range between five basic strategies: acquiescence, compromise, avoidance, defiance and manipulation.

- Acquiescence is defined as a company's passive adherence to institutional pressures, which can be articulated through various tactics, including habit (unconscious or blind compliance with preconscious or taken-for-granted rules or values), imitation (mimetic conformity, with conscious or unconscious mimicry of institutional models) and compliance (conscious obedience to or incorporation of values, norms or institutional requirements). The following table 11 illustrates the impact of a combination of different antecedents on the choice of acquiescence strategy.

**Table 11.** Antecedents of acquiescence

PREDICTIVE FACTOR	ACQUIESCENCE
<b>Cause</b> Legitimacy efficiency	High High
<b>Constituents</b> Multiplicity Dependence	Low High
<b>Content</b> Consistency Constraint	High Low
<b>Control</b> Coercion Diffusion	High High
<b>Context</b> Uncertainty Interconnectedness	High High

Source: own elaboration based on Oliver (1991)

- Compromise can be defined as partial conformity with institutional expectations, and it is employed in circumstances where there is a divergence between external pressures and internal organisational objectives. It involves the accommodation of external demands whilst simultaneously promoting internal interests. The activation of this strategy can be achieved through a balanced alignment of multiple stakeholders' interests and those of the organisation itself, or by the pacification of external pressures through partial compliance with some of their requirements. Alternatively, it can be achieved through bargaining over and the potential exacting of concessions from an external constituent in its demands or expectations. The following table 12 illustrates the impact of the combination of different antecedents in terms of the choice of compromise strategy.

**Table 12.** Antecedents of compromise

PREDICTIVE FACTOR	COMPROMISE
<b>Cause</b> Legitimacy efficiency	Low Low
<b>Constituents</b> Multiplicity Dependence	High High
<b>Content</b> Consistency Constraint	Moderate Moderate
<b>Control</b> Coercion Diffusion	Moderate High
<b>Context</b> Uncertainty Interconnectedness	High High

Source: own elaboration based on Oliver (1991)

- Avoidance can be defined as the organisational attempt to preclude the necessity of conformity with institutional demands through possible tactics of concealment by disguising non-conformity behind a facade of acquiescence, or buffering by decoupling technical activity from external contact, or escape by exiting the domain within which pressure is exerted, altering goals, activities, or domain. As illustrated in Table 13 below, the interaction of distinct antecedents has a significant impact on the selection of avoidance strategies.

**Table 13.** Antecedents of avoidance

PREDICTIVE FACTOR	AVOIDANCE
<b>Cause</b> Legitimacy efficiency	Low Low
<b>Constituents</b> Multiplicity Dependence	High Moderate
<b>Content</b> Consistency Constraint	Moderate High
<b>Control</b> Coercion Diffusion	Moderate Moderate
<b>Context</b> Uncertainty Interconnectedness	High Moderate

Source: own elaboration based on Oliver (1991)

- Defiance can be defined as the most active form of resistance, whereby institutions, norms and expectations are rejected through the implementation of tactics such as dismissing or ignoring institutional rules and values, challenging institutional pressures or attacking organisations. The objective of defiance is to denounce institutionalised values and external constituents in order to express them. The following table 14 illustrates the impact of the combination of different antecedents in terms of the choice of defiance strategy.

**Table 14.** Antecedents of defiance

<b>PREDICTIVE FACTOR</b>	<b>DEFIANCE</b>
<b>Cause</b> Legitimacy efficiency	Low Low
<b>Constituents</b> Multiplicity Dependence	High Low
<b>Content</b> Consistency Constraint	Low High
<b>Control</b> Coercion Diffusion	Low Low
<b>Context</b> Uncertainty Interconnectedness	Low Low

Source: own elaboration based on Oliver (1991)

- The concept of manipulation can be understood as a strategic response that is characterised by its active and proactive nature, with the primary objective being the modification or exertion of influence over the content of institutional expectations, along with the underlying sources that impose these expectations. Tactics employed in this pursuit may include the co-option of institutional constituents and processes, the exertion of influence, or the exercise of control. The following table 15 shows the impact of the combination of different antecedents in terms of the choice of manipulation strategy.

**Table 15.** Antecedents of manipulation

PREDICTIVE FACTOR	MANIPULATION
<b>Cause</b> Legitimacy efficiency	Low Low
<b>Constituents</b> Multiplicity Dependence	High Low
<b>Content</b> Consistency Constraint	Low High
<b>Control</b> Coercion Diffusion	Low Low
<b>Context</b> Uncertainty Interconnectedness	Low Low

Source: own elaboration based on Oliver (1991)

### ***3.2.3 The evolution of strategic organisational responses into long-term change models***

The objective of this section is to emphasise the correlation between the various strategies delineated by Oliver and the organisational change models expounded by Laughlin. The latter is regarded as the long-term consequence of the various potential organisational responses. To elaborate, the nexus between the two theoretical frameworks enables us to comprehend how initial strategic organisational responses may metamorphose into more profound or more superficial changes as the institutional pressures endure. In the following paragraphs, Oliver's strategies are analysed in turn, and their potential evolution into specific organisational change models over time is considered. These connections are synthesised in Table 16 below.

#### *From Acquiescence to Rebuttal, Reorientation/ Colonization*

The concepts of habit and imitation are used to describe the unconscious or mimicry-based adherence to established norms. These actions are frequently intended to preserve the fundamental structure of the organisation, or to create the impression of conformity without the implementation of significant internal changes. This perspective finds resonance with Laughlin's concept of 'rebuttal', which is defined as a first-order (morphostatic) change that entails the creation of a facade, ostensibly altering the appearance of entities while preserving their fundamental essence. This mechanism is theorized as a means of deflecting external disturbances and ensuring the preservation of the organisation's original state (Laughlin, 1991). The interpretive schemes remain unaltered.

Conversely, compliance can be defined as deliberate adherence to institutional requirements in anticipation of personal benefits. This can result in the development of structural or administrative intricacy. Such adjustments, if they are to be considered as such, must necessarily be understood as falling within the remit of Laughlin's 'reorientation' model, without any alteration to the core values or beliefs. The latter is a first-order (morphostatic) change in which the organisation adjusts its internal infrastructure (design archetype and sub-systems) to accept and internalise a disturbance, but its interpretive schemes remain largely unaffected. The definition of compliance naturally gives rise to questions surrounding the potential impact of complying with a regulation, aimed at altering the fundamental values of an organisation (for example, with the objective of ensuring comprehensive integration of sustainability) or as Laughlin asserts, its interpretive schemes. It is a matter of interest to consider whether compliance with this type of regulation might result in a morphogenetic change in the long term. The answer to this question is inextricably linked to the fundamental nature of a compliance strategy, which is predicated on the capacity to adapt to external pressures in a manner that preserves the legitimacy and stability of the organisation, without however effecting any fundamental alteration to its core identity or purpose. The objective of this strategy is to create the impression of conformity or adaptation in the organisation's visible structures and processes, in accordance with Laughlin's first-order change. The goal of compliance is to avoid more disruptive change while securing benefits. While the environmental disturbance may aspire to a second-order change by advocating for deep sustainability integration, the company's strategic inclination towards compliance is generally a mechanism to manage that pressure at a superficial or structural level, thereby preventing it from penetrating the interpretive schemes. However, it is important to consider a nuance: Laughlin (1991, p.220) hypothesises that a "chosen pathway, say 'reorientation'" (which aligns with compliance) "can be overrun by circumstances, led maybe by a small group of participants, and shift to a 'colonization' model without any seeming choice involved". This suggests that a second-order change, such as 'Colonization', could occur despite the initial compliance strategy. This may occur if the mechanisms implemented for compliance (e.g. new sustainability reporting systems or governance structures) become vehicles for a deeper, albeit forced or unintended, shift in the organisation's core values. However, this would be an unintended or forced outcome rather than a direct result of the compliance strategy's inherent design or goal.

#### *From Compromise to Reorientation*

Organisations that employ compromise strategies are motivated to satisfy external demands whilst concomitantly promoting their own internal interests. In the long term, it most closely corresponds to Laughlin's 'Reorientation' model of change. Indeed, compromise tactics such as balancing conflicting demands or pacifying a source of pressure necessitate internal adjustments (design archetype and sub-systems) whilst seeking to avoid drastic alterations to the organisation's central core or interpretive schemes.

### *From Avoidance to Rebuttal*

The avoidance strategy is characterised by organisational initiatives aimed at mitigating the necessity for conformity. These initiatives encompass the concealment of nonconformity, the alleviation of pressure, and the evasion of institutional rules and domains. In the long term, it is largely consistent with Laughlin's 'Rebuttal' model of change, which mirrors the objectives of concealment and buffering to make the organisation look different while remaining basically as they have always been. The goal of avoidance is to circumvent the need for fundamental internal change, often by manipulating appearance or distancing the organisation from the source of pressure. Indeed, even escaping a domain can be regarded as a robust form of rebuttal, effectively removing the organisation from the pressure rather than affecting a change to its internal core.

### *From defiance to rebuttal*

The defiance can be interpreted as a clear rejection of established institutional norms (Oliver, 1991). It is evident that, on a long-term basis, defiance is in alignment with the 'Rebuttal' model of change as proposed by Laughlin. When an organisation actively resists the pressures of institutional forces, it is fundamentally resisting the forces from outside that seek to induce change. Should this endeavour prove successful, the objective of defiance is to preserve the organisation's existing state or identity. This strong resistance to altering the fundamental balance and coherence of the interpretive schemes and design archetype makes 'rebuttal' a fitting long-term outcome for defiant strategies.

### *From Manipulation to Colonization*

It is evident that manipulation represents the most active and proactive strategic response. This is characterised by a purposeful and opportunistic effort to reshape institutional norms and control sources of social approval. It is important to note that, in the long term, manipulation most closely leads to Laughlin's "Colonization" model of change. This type of change is "forced upon the organisation" in the sense that it may not be a consensual decision by all participants, but rather driven by a "small group" who "create lasting and fundamental change in both the visible and invisible elements in any organisation" (Laughlin, 1991, p. 220). This process has been shown to engender a fundamentally novel "underlying ethos for the organisation as a whole" (Laughlin, 1991, p. 219), exerting its influence not only on the design archetype and sub-systems, but also on the core interpretive schemes. While Laughlin also classifies evolution as a second-order change, it presupposes a discursive process culminating in organisation-wide, non-coercive consent (Laughlin, 1991, p. 220). By contrast, the control and domination facets that characterise manipulation (Oliver, 1991) imply the activation of power asymmetries and imposed direction. Under these conditions, the emergent transformation is more consistent with colonisation—the introduction of a new ethos that others may accept only reluctantly—than with evolution achieved through universal free consent. Accordingly, within the present observation window, an evolutionary pathway appears unlikely; the evidence points instead to colonising change dynamics.

**Table 16.** Connecting Oliver to Laughlin

STRATEGIC RESPONSE	TACTICS	ORGANISATIONAL CHANGE
Acquiescence	Habit, Imitation, Compliance	Rebuttal (habit & imitation) Reorientation (compliance) → (Possible shift to Colonisation)
Compromise	Balancing, Pacifying, Bargaining	Reorientation
Avoidance	Concealment, Buffering, Escape	Rebuttal
Defiance	Dismissal, Challenge, Attack	Rebuttal
Manipulation	Co-opt, Influence, Control	Colonisation

Source: own elaboration

### 3.3 Empirical setting

#### 3.3.1 *The aerospace and defence sector*

In order to pursue the more general objective of outlining the challenges involved in using regulatory instruments as a source of organisational change aimed at supporting a broader concept of sustainable development, it was decided to focus the analysis on a specific sector, namely aerospace and defence. As previously mentioned in Chapter Two of this thesis, the choice of this sector was driven by an awareness of its significance. This is related to the central role of organisations operating in A&D in supporting sustainable development through the lever of technological innovation. Moreover, the decision to analyse this sector was motivated by the prevailing under-researched state of the field, particularly with regard to the critical issues inherent in its relationship with the generally accepted concept of sustainability. These issues include, but are not limited to, the environmental impact (carbon footprint, energy consumption, asset life cycle, logistics, use of critical materials) and social/ethical risks (production of weapons/military technologies, possible impacts on human rights). Awareness of these critical issues, accompanied by the widespread interpretation of particular European regulations (see Table 17), is central to the decision of certain sustainable investors and investment funds to exclude companies operating in this sector from their portfolios a priori or following rigorous assessments of compliance, transparency and ESG risk management. The European regulations described below represent the primary regulatory sources whose consideration could influence the possible exclusion of companies operating in A&D from investment decisions. As stated in the introduction to this thesis, the requirements and characteristics of some of these regulations have already been discussed (Taxonomy regulation, SDFR, CSRD and CSDDD). Consequently, no further elaboration on these

factors will be provided. Instead, a discussion will ensue regarding their prospective utilisation as a foundation for the exclusion of investments in the A&D sector.

- The “Taxonomy Regulation”, which establishes the technical criteria for environmentally sustainable activities in the A&D sector, represents the primary point of contention with the European sustainable finance framework. Although defence activities are not explicitly excluded, they present significant challenges in terms of aligning with the technical alignment requirements. This phenomenon is especially evident in instances where there is an attempt to demonstrate a substantial environmental contribution, in addition to compliance with the DNSH principle and respect for minimum social safeguards. It is acknowledged that certain dual-use activities (civilian and military) – including aerospace manufacturing and technological innovation for emissions reduction – may be considered eligible in a broad sense. Nevertheless, the absence of specific technical criteria for the defence sector limits their eligibility under the Taxonomy.
- In the context of the aerospace and defence sector, the SFDR does not introduce any automatic exclusions. Nevertheless, the regulatory framework in place fosters transparency and the reporting of exclusion or inclusion policies adopted by managerial personnel. Consequently, a significant number of institutional investors opt to exclude defence companies from sustainable portfolios (in accordance with Articles 8 and 9), with a view to averting reputational risks or contradictions with their ESG objectives. It is therefore evident that the regulation does not impose a ban, but rather makes exclusion choices explicit and traceable.
- The CSRD imposes heightened transparency obligations concerning ESG impacts, encompassing those aspects related to emissions, human rights and governance. These obligations apply to the A&D sector. This could result in sustainable investors excluding companies with unsatisfactory or opaque performance. Nevertheless, companies that are able to adopt mitigation strategies and advanced governance may also see the CSRD as an opportunity to demonstrate responsibility and resilience, thereby improving their attractiveness to investors.
- The CSDDD is accompanied by a considerable augmentation in responsibility and transparency. Failure to comply with due diligence obligations (e.g. for the risk of human rights violations or environmental damage along the value chain) can lead to serious reputational and legal risks. This could result in sustainable investors excluding companies that do not demonstrate robust governance or effective control over their supply chains. This is of particular concern in sensitive sectors such as A&D, which is also characterised by complex and often international supply chains.
- In addition to these regulations, two further European requirements have the potential to influence investment choices, namely Delegated Regulation (EU) 2020/1818<sup>53</sup> e and Common Position 2008/944/CFSP of the Council of the EU<sup>54</sup>. The first (Delegated Regulation (EU) 2020/1818) establishes in Article 12 that EU Climate

---

<sup>53</sup> [https://eur-lex.europa.eu/eli/reg\\_del/2020/1818/oj](https://eur-lex.europa.eu/eli/reg_del/2020/1818/oj)

<sup>54</sup> <https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:02008E0944-20190917&from=IT>

Transition Benchmarks (CTBs) and EU Paris-Aligned Benchmarks (PABs)<sup>55</sup> must exclude companies involved in the production or sale of controversial weapons<sup>56</sup>, whose involvement must be disclosed by companies falling within the scope of the CSRD pursuant to ESRS 2 SBM 1 - Strategy, business model and value chain, paragraph 40 point d. The second (Common Position 2008/944/CFSP) establishes common criteria for the control of exports of military technology and equipment by Member States. Article 2 of the Common Position delineates eight evaluation criteria, encompassing respect for human rights within the recipient nation, regional stability, and the potential for diversion or misuse of exported armaments. Despite not being formally part of the sustainable finance framework, this document could be regarded by investors as an indicator of ethical conduct and responsible governance. In the event of contravention, companies may be excluded from ESG portfolios, as non-compliance represents a significant reputational and regulatory risk. In this sense, the Common Position may be regarded as a complementary ethical benchmark to ESG regulation, exerting indirect influence on exclusion policies in the defence sector.

Table 17 below summarises the European provisions relevant to sustainable investors' decisions to include or exclude the A&D sector.

**Table 17.** EU Regulations impacting sustainable investors' decisions on the A&D sector

EU REGULATION / DIRECTIVE	SCOPE AND MAIN PROVISIONS	IMPACT ON THE A&D SECTOR INVESTMENTS
<b>EU sustainable finance strategy</b>		
Regulation (EU) 2020/852 – Taxonomy Regulation	Framework for environmentally sustainable activities based on substantial contribution, DNSH principle, and minimum safeguards.	Defence-related activities are not automatically excluded, but often cannot demonstrate substantial environmental contribution or DNSH compliance. This indirectly discourages inclusion by sustainable investors.
Regulation (EU) 2019/2088 – SFDR	Establishes transparency obligations for financial market participants and products concerning sustainability risks and PAIs.	Requires asset managers to disclose integration of ESG risks and exclusion policies. No automatic exclusion for the A&D sector, but

<sup>55</sup> Climate benchmarks, introduced by Regulation (EU) 2019/2089 and designed to align investment portfolios with the objectives of the Paris Agreement and the European Green Deal.

<sup>56</sup> The definition of controversial weapons will be replaced with prohibited weapons (anti-personnel mines, cluster munitions, biological and chemical weapons) pursuant to Commission Delegated Regulation (EU) amending Delegated Regulation (EU) 2020/1818, not yet officially published among the delegated acts of the Defence Readiness Omnibus Package.

		transparency obligations influence investor behaviour.
Directive (EU) 2022/2464 – CSRD	Extends mandatory sustainability reporting under ESRS, based on double materiality principle.	Enhanced transparency on ESG performance may lead to exclusion if A&D companies show negative exposure in emissions, human rights, or governance.
<b>Enforcement of EU sustainable finance strategy</b>		
Directive (EU) 2024/1760 – CSDDD	Requires large undertakings to conduct due diligence on human rights and environmental risks along their value chains.	A&D firms with complex international supply chains face higher scrutiny. Lack of compliance may lead to exclusion by sustainable investors.
Commission delegated regulation (EU) 2020/1818 – minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks	Requires the mandatory exclusion from the EU Climate Transition Benchmarks (CTB) and EU Paris-Aligned Benchmarks (PAB) of companies involved in the production or sale of controversial weapons.	Depending on the fund's policy, the definition of “sustainable” adopted and the perception of reputational or regulatory risk, sustainable investors may exclude only companies that produce controversial weapons or the entire A&D sector.
Council Common Position 2008/944/CFSP – EU Arms Export Controls	Establishes common rules for controlling exports of military technology and equipment.	Compliance with export control criteria serves as a governance and ethics indicator. Violations or high-risk exports may trigger ESG exclusion.

Source: own elaboration

It is noteworthy that none of the European regulatory instruments under consideration provide for the automatic exclusion of the defence sector from sustainable investments. Nevertheless, they establish a regulatory ecosystem characterised by transparency, accountability and ethical conduct, which exerts a significant influence on the strategies employed by sustainable investors. The decision to exclude or include defence companies is therefore strategic and value-based, and rests with the individual investor. This is determined by considerations relating to alignment (or divergence) with ESG principles and the European Union's sustainability objectives. These considerations resulted in the marginalisation of the Aerospace & Defence sector, both technically and normatively, within the context of sustainable finance. However, the shift in the global geopolitical

landscape has accentuated its strategic significance for European security and sovereignty. In recent years, this has resulted in two notable trends. Firstly, there has been an increase in the exposure of ESG funds to the defence sector (Sustainalytics, 2025<sup>57</sup>; Morning Star, 2025<sup>58</sup>). Secondly, there has been a strengthening of EU defence spending through various initiatives and instruments within the EU budget (European Council, 2025<sup>59</sup>). To elaborate further, instances of European Commission intervention encompass instruments such as the “Defence Readiness Omnibus Package (DRO)” (European Commission, 2025<sup>60</sup>), which was adopted by the European Commission in June 2025 and signifies a pivotal moment in the endeavour to harmonise defence and sustainable finance policies. The package is designed to streamline regulatory procedures for production and procurement in the defence sector, while elucidating that these activities are not inherently incompatible with the European sustainable finance framework (SFDR, Taxonomy and CSRD). The Commission, advocating for a paradigm shift, asserts that defence constitutes a legitimate public interest and that investments in the sector can be regarded as sustainable. Consequently, the Commission invites investors to evaluate defence projects and companies on a case-by-case basis, according to criteria of transparency, governance and mitigation of environmental and social impacts, as opposed to relying on generalised exclusions. The DRO and the communications that form an integral part of it, such as the “Commission notice on the application of the sustainable finance framework and the Corporate Sustainability Due Diligence Directive to the defence sector” (European Commission, 2025<sup>61</sup>) pave the way for a sustainable reinterpretation of the A&D sector, consistent with the objectives of European strategic autonomy. This, in turn, pushes A&D companies to pay greater attention to due diligence strategies, risk transparency and PAIs criteria, as well as supply chain governance, in order to be considered compatible with sustainable finance.

The critical issues characterising the A&D sector in relation to sustainability, including in terms of sustainable investment decisions, combined with the increasingly important role played by this sector in the global geopolitical context, and more specifically in Europe, influenced the decision to choose this sector as the setting for analysing the transformative potential of the CSRD. As previously mentioned, the latter also represents one of the European regulations whose compliance could be exploited by companies in the sector as an opportunity to align themselves with the demands of sustainable investors in terms of compatibility with European sustainable development objectives, increasing their attractiveness. In conclusion, it was decided not only to focus the analysis on the specificities of the A&D sector, but also to concentrate it on the A&D sector in Italy, characterised by a best-in-class company such as Alpha S.p.a., whose case study, given

---

<sup>57</sup><https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/eu-esg-funds--exposure-to-defense-continues-to-increase?utm>

<sup>58</sup><https://global.morningstar.com/it/investimenti-sostenibili/come-i-fondi-esg-hanno-imparato-ad-amare-le-armi>

<sup>59</sup> <https://www.consilium.europa.eu/en/policies/defence-funding/?utm>

<sup>60</sup>[https://defence-industry-space.ec.europa.eu/document/download/b2bcc9a0-5259-4543-9e1c-3af1dde8fbec\\_en?filename=Defence-Simplification-Omnibus.pdf&utm](https://defence-industry-space.ec.europa.eu/document/download/b2bcc9a0-5259-4543-9e1c-3af1dde8fbec_en?filename=Defence-Simplification-Omnibus.pdf&utm)

<sup>61</sup>[https://defence-industry-space.ec.europa.eu/document/download/ac79ebc7-d2f1-4e7a-a79c-71a06a5fdbf8\\_en?filename=notice-application-sustainable-finance-framework-and-corporate-sustainability.pdf](https://defence-industry-space.ec.europa.eu/document/download/ac79ebc7-d2f1-4e7a-a79c-71a06a5fdbf8_en?filename=notice-application-sustainable-finance-framework-and-corporate-sustainability.pdf)

its characteristics, highlighted in the following paragraph, allowed us to obtain a national sectoral picture through which to pursue the aim of the research project.

### ***3.3.2 The Alpha S.p.a. case as representative of the Italian A&D sector***

The company Alpha S.p.a. was selected as a representative of the Italian aerospace and defence industry. It is the one of the largest national entities in terms of revenues, workforce, and technological capabilities, and it positions itself as Italy's industrial champion in the domains of defence and security. The Italian state's substantial ownership stake serves to further reinforce its centrality, thereby underlining Alpha's strategic importance to national security and industrial policy. Furthermore, the international standing of Alpha has been identified as a contributing factor to its influence extending beyond the national context. The company has a consistent presence in the top positions of the global defense contractors ranking, and it actively participates in major multinational programs, partnerships, and joint ventures. This active engagement reflects Italy's integration within the North Atlantic Treaty Organization (NATO) and European defense initiatives. In contrast to smaller, specialised firms, Alpha operates across the entire spectrum of the A&D industry, encompassing helicopters, aircraft, defence electronics, cyber, space, and advanced systems. The company's pioneering role in research, innovation, and sustainability reporting serves to emphasise its relevance as a case study. As one of the first Italian A&D companies to integrate sustainability considerations into its corporate strategy and disclosures, Alpha provides a meaningful lens through which to explore institutional pressures, regulatory compliance, and strategic responses within a highly sensitive and regulated industry. The company's extensive portfolio enables it to serve as a comprehensive proxy for the Italian A&D sector, as it encompasses the sector's complexity and diverse technological domains. This dominant and multifaceted position renders Alpha an especially pertinent case for examining the variety of strategic responses to institutional pressures as conceptualised by Oliver (1991). Given its scale and visibility, the company is more likely to encounter strong coercive and normative pressures related to sustainability, transparency, and corporate responsibility. Furthermore, the organisation's substantial resources, its extensive political connections, and its far-reaching international presence confer upon it the capacity to not only acquiesce to such demands, but also to engage in negotiations, manipulation, or the active shaping of these demands. In this sense, Alpha can be regarded as an illustrative arena in which the full spectrum of Oliver's response strategies – ranging from acquiescence to defiance and manipulation – may be observed. Consequently, Alpha can be considered as both a representative and a theoretically illuminating sample of the Italian A&D sector. It is representative insofar as it reflects the sector's scale, scope, and state dependence; and illuminating because its institutional prominence renders its strategic responses particularly visible and analytically significant.

### **3.4 Methodology**

The analysis of the transformative potential of CSRD was conducted using a multimethod empirical investigation (Luque-Vílchez and Larrinaga, 2016). It consists, on the one hand of a qualitative content analysis of the 2016, 2020, 2023, 2024 Alpha S.p.a. sustainability reports, on the other hand, of semi-structured interviews with key roles within Alpha

S.p.a. and the A&D sector and with other relevant actors in the regulatory context (Andrades et al., 2025). Additionally, we use as a broader source of data, the notes (Hammersley & Atkinson, 2007) taken during conferences and seminars monitoring the progress of the Directive and other documents considered useful to have more insights on the object of our research such as notes from meetings with the company.<sup>62</sup>

The choice of using a multimethod approach is primarily justified by the nature of the aerospace and defence sector. The latter is characterized by a complex supply chain with multiple tiers of suppliers and requires the use of advanced technologies and a very high level of security and confidentiality of data and information. Additionally, the challenges encountered in the collection of information are directly related to the strategic importance of this sector at both the European and national levels. This underscores the potential for activating defence-related exemptions from regulatory requirements, which “may create additional and sometimes unintended hurdles for the EU defence industry” (Issue paper n.5, p.9<sup>63</sup>). Consequently, the substantial barriers encountered in the realm of information-gathering, in conjunction with the complexity of observing organisational change, guided our decision to adopt a methodological approach that would facilitate diverse perspectives and varied data access points.

In conclusion, the decision to examine a single business case in depth, rather than increasing the number of cases, is useful for understanding the multi-level dynamics that characterise organisational responses to institutional pressures, in line with the systematic combining approach proposed by Dubois & Gadde (2002), according to which: the most logical approach would be to delve deeper into one particular case, rather than expanding the number of cases under consideration, when the problem pertains to the analysis of a number of interdependent variables within complex structures. This is consistent with the approach of this research, which involves an in-depth analysis of a single case through multiple perspectives and sources of information. The integration of content analysis of sustainability reports and semi-structured interviews facilitates an exploration of two distinct levels: the formal, associated with institutional and strategic communication (through official documents), and the informal or interpretative, arising from the perceptions and experiences of the interviewees. This enables the identification of any discrepancies between the organisation's communication and its actual practices.

### ***3.4.1 Content analysis***

This study, which employs a multimethod empirical investigation, incorporates content analysis following an exploratory and interpretative research approach (Rodríguez et al., 2019; Guerrero-Baena et al., 2023; Fernández & Luque-Vílchez, 2024). Content analysis can be defined as a data collection technique that consists of coding qualitative information into categories in order to derive quantitative scales of various levels of complexity and to derive patterns in the presentation and reporting of information (Abbott and Monsen, 1979; Krippendorff, 1980; Guthrie, & Abeysekera, 2006). Recognising the diversity of content analysis approaches and acknowledging that the selection of a

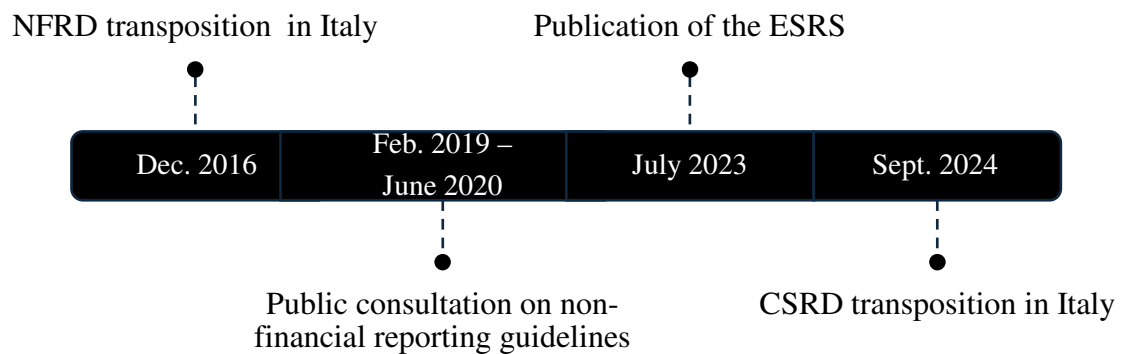
---

<sup>62</sup> Details about the researcher's engagement with the company are provided in paragraph 3.4.3.

<sup>63</sup>[https://defence-industry-space.ec.europa.eu/document/download/bebd3d2f-bd0a-46f5-ae2-6ae586dba3ad\\_en?filename=EDIS%20Issue%20Paper%205.pdf](https://defence-industry-space.ec.europa.eu/document/download/bebd3d2f-bd0a-46f5-ae2-6ae586dba3ad_en?filename=EDIS%20Issue%20Paper%205.pdf)

particular approach is contingent on the nature of the research subject (Hsieh & Shannon, 2005), it was deemed imperative to employ an approach that would facilitate the identification of significant information from the analysed reports without immediate rigid categorisation. The approach selected is both exploratory and interpretative. It is exploratory in nature because it is based on the definition of thematic categories identified on the basis of the research question, yet is not exclusionary in terms of the possibility of refinement based on the collected data. At the same time, it is also interpretative, because being more oriented towards the quality of the narrative (Xhindole et al., 2025), made it possible to disaggregate the narrative into its components by analysing the content of each of them to study the communication of information (Beck et al., 2010). The analytical process was developed on the basis of selected categories of information to be identified in the data according to the research question. To respond to the theoretical propositions of the research, it was decided to carry out a content analysis of the sustainability reports/integrated reports of the Italian company chosen as a sample of the Italian A&D sector. The analysis focused on four specific years: 2016, 2020, 2023 and 2024. These were selected because they were characterised by significant environmental disturbances, as shown in Figure 6 below. These disturbances potentially impacted the cumulative process of change in the organisation analysed.

**Figure 6.** Content analysis' chosen years



Source: own elaboration

Following the exploratory and interpretative approach, the subsequent stage was to identify the categories of analysis. This was achieved by avoiding excessive rigidity in the definitions, which could have limited the identification of significant data. Such data were deemed to be essential for identifying the strategic responses of organisations to institutional pressures. The labels were defined with reference to the most significant

issues introduced by the CSRD and ESRS, the structural and content characterisation of sustainability reports, issues of relevance to the sector under analysis (A&D), and the core aim of the Directive. Specifically, eight labels were identified (Integration of sustainability in the strategy; Changes in the business model; Management system; Materiality assessment; Double materiality assessment; Assurance; Reconfiguration of assurance through new technologies; Restatement of sustainability report content) as shown in table 18 below. The labels “Integration of sustainability in the strategy”, “Changes in the business model” and “Management system” are closely linked to the overarching aim of the CSRD, namely, to activate a process of integrating sustainability into the core values of companies. This process is expected to lead to a rethinking of internal organisational and strategic processes and to have a significant impact on sustainability accounting. The labels “materiality assessment” and “double materiality assessment” are associated with the CSRD’s establishment of the double materiality assessment as the fundamental principle for identifying the information that is required to be reported. In addition, connected to the logic of subjects pertinent to the legislation, there is also the label “assurance”, given the introduction of a logic of progressive change in the type of assurance from limited assurance to reasonable assurance (a change that will probably be eliminated in the context of simplification to be introduced by the Omnibus package). In consideration of the characteristics of the sector under scrutiny and its significance within the domain of technological innovation, it was determined to incorporate the designation “Reconfiguration of assurance through new technologies” into the analysis. This decision was made with cognisance of the inherent potential and substantial critical concerns pertaining to the potential utilisation of artificial intelligence technology in this domain (Soriano et al., 2026). Furthermore, the label “Restatement of sustainability report content” was utilised as a category to identify and verify the regulations and standards employed for the purpose of producing the report, and their evolution over time. The selection of all labels (table 18) was derived deductively from the CSRD’s own regulatory architecture. The Directive frames reporting around the integration of sustainability into strategy, an explanation of how the business model is affected and adapts in response to risks, impacts and transition dynamics, and a description of the governance and management system arrangements (policies, processes, controls and risk management) that underpin such integration. This is why the labels Integration of sustainability in the strategy, Changes in the business model, and Management system are treated as the Directive’s “inner objectives”. Likewise, the CSRD establishes materiality—and, distinctively, double materiality—as a structuring principle for the required disclosures, which justifies the inclusion of Materiality assessment and Double materiality assessment as “significant topics”. Finally, the CSRD’s requirement for assurance strengthens the regulatory emphasis on data reliability and process robustness; accordingly, Assurance is included as a normatively grounded label. Restatement of sustainability report content is used as a control label to capture corrections or re-expressions that affect consistency and comparability over time—an aspect aligned with the CSRD’s purpose of improving the quality and verifiability of sustainability information. The only label not directly anchored in the CSRD’s general

architecture is Reconfiguration of assurance through new technologies, which is included to capture a particularly salient feature of the A&D context (i.e., digitalisation and traceability of assurance), without altering the regulatory core of the classification.

**Table 18.** Content analysis' chosen labels

LABELS	REASON OF CHOICE
Integration of sustainability in the strategy	CSRD inner objectives
Changes in the business model	CSRD inner objectives
Management system	CSRD inner objectives
Materiality assessment	CSRD significant topic
Double materiality assessment	CSRD significant topic
Assurance	CSRD significant topic
Reconfiguration of assurance through new technologies	A&D significant topic
Restatement of sustainability report Content	Label of control

Source: own elaboration

### 3.4.2 *Semi-structured interviews*

As previously indicated, a multimethod empirical investigation was adopted, which was also informed by semi-structured interviews (Alvesson, 2010; Miller and Crabtree, 1999; Wengraf, 2001, Qu and Dumay, 2011). The latter were selected because, on the one hand, structured interviews run the risk of influencing the interviewee's answers, not only because of the type of questions asked, but also because they offer a limited number of alternative responses. Conversely, while unstructured interviews empower the interviewee by allowing for spontaneous questions and answers, there is a concern that this may not be conducive to studies that employ pre-existing theoretical frameworks. Consequently, a semi-structured interview method was selected, whereby interviewees are permitted to direct the discourse according to topics of their choosing, while being constrained by a series of subjects that are introduced by the interviewer at designated intervals (González et al. 2006). To this end, a guide was prepared for all interviews conducted, to “allow the interviewers both to ask a series of regularly structured questions (...) and to pursue areas spontaneously initiated by the interviewee” (Berg and Lune, 2012, p. 114).

The interviews, lasting between 40 minutes and an hour and a half, were prepared using the key concepts of the theoretical framework (disturbance, change, design archetypes and interpretative schemes, strategic responses to institutional pressures) to define the

guide of questions asked to the interviewee<sup>64</sup>. In addition to using these concepts, the questions were also prepared using various documents available on the web in cases where the interviewee was part of a company and papers written, in cases where the interviewee held a position not only at a professional level but also at an academic level. Alongside, in the interview preparation process, were involved two researchers experienced in applying this qualitative research method, who also attended some of the interviews and another researcher, who had previously applied the same theoretical framework to generate insights about the transformative potential of integrated reporting by exploring organisational adoption of non-financial reporting design archetypes. Assuming that multiple actors (GRI experts, academics, consultants, auditors, etc.) and different mechanisms (social context) support the institutionalisation of sustainability reporting activity (Larrinaga and Bebbington, 2021), the interviews conducted can be divided into two categories: those of a more contextual nature aimed at individuals who could influence the institutionalisation of CSRD requirements, and those of a specific nature aimed at individuals working within Alpha S.p.a.

The first category of interviews, termed “contextual interviews”, targeted experts in governance and sustainability reporting who are actively involved in this field in various capacities. These included academics engaged in research and teaching on the subject, as well as a professional who serves as a sustainability director in the A&D sector of a medium-sized Spanish<sup>65</sup> company that is part of the supply chain of a large competitor of Alpha. The present series of interviews was conducted with the aim of obtaining a different point of view from that of a large company in the A&D sector on the impact of the introduction of the CSRD, defined as a regulatory tsunami. The interviews were prepared taking into account not only the theoretical framework but also the study of the new regulatory requirements introduced by the CSRD and the labels identified for the content analysis of sustainability reports. Conducted between May and October 2025, these interviews offered a more structured perspective on the potential impacts of the regulation’s introduction. This was crucial not only for addressing the research question but also for developing the interview guides for individuals working within the organisation under analysis in this third chapter. The following table 19 summarises and codifies the experts interviewed, their roles and the duration of this first category of interviews.

---

<sup>64</sup> The contextual interviews guides are included in Appendix 1 and the case study interviews guides in Appendix 2.

<sup>65</sup> Spain and Italy are two comparable stakeholder-driven countries that have demonstrated a growing concern for sustainability issues.

**Table 19.** Contextual interviews summary table

<b>Code</b>	<b>Role</b>	<b>Duration</b>	<b>Category</b>
<b>E01</b>	Sustainability accounting professor and EFRAG expert	40 minutes	Academic
<b>E02</b>	Management Professor and Sustainability researcher	1 hour	Academic
<b>E03</b>	Public Affairs and Sustainability Director of A&D Spanish Midcap	1 hour and 18 minutes	Professional
<b>E04</b>	GRI Expert and Former PWC Partner, PhD	1 hour and 33 minutes	Expert and Professional
<b>E05</b>	Public administration professional and Professor, PhD	39 minutes	Professional and academic
<b>E06</b>	Former senior partner EY, CEO sustainability consulting company and professor	1 hour	Professional and academic

Source: own elaboration

The second category, which comprised interviews conducted within the Alpha S.p.a. organisation, took place between October and December 2025. The interviews were focused on four different corporate units: Consolidated sustainability statement, Risk management, Sustainability and Investor relations and market analysis. The selection of these units and the formulation of the interview guides was informed by a comprehensive consideration of the theoretical framework, the analysis of the novel regulatory requirements introduced by the CSRD, the issues of change highlighted by the experts who had previously been interviewed, the labels identified for the content analysis of sustainability reports, and the results of the content analysis. To be more detailed, this choice enables the exploration of the organisational areas most involved in the process of integrating sustainability into strategic, management and reporting processes, ensuring consistency between the content analysis and the semi-structured interviews. The selected units facilitate the investigation of the review of strategic and reporting processes in response to regulatory developments (Consolidated sustainability statement and

Sustainability), the integration of ESG risks and the assessment of double materiality (Risk Management), and the adaptation of disclosure and assurance mechanisms in light of new transparency required in the communication with financial stakeholders. (Investor Relations and market analysis). The following tables (20 and 21) provide a detailed explanation of the link between the content analysis labels and the choice of company units to be interviewed, while also summarising and codifying the roles of the interviewees, the duration of the interviews and the company unit to which they belong.

**Table 20.** Alignment between Alpha S.p.a. units interviewed and content analysis labels

CORPORATE UNIT INTERVIEWED	MOST RELATED CONTENT ANALYSIS LABELS	RATIONALE FOR RELATION
<b>Consolidated sustainability statement</b>	<ul style="list-style-type: none"> <li>● Integration of sustainability in the strategy</li> <li>● Changes in the business model</li> <li>● Assurance</li> <li>● Reconfiguration of assurance through new technologies</li> <li>● Restatement of sustainability report content</li> </ul>	<p>The Consolidated sustainability statement unit serves as a conduit between the financial and non-financial dimensions. Its incorporation facilitates an examination of the company's integration of sustainability into its strategic framework and business model, its management of the assurance process for non-financial information, and its reconceptualisation of report content in accordance with the CSRD.</p>
<b>Risk Management</b>	<ul style="list-style-type: none"> <li>● Management system</li> <li>● Materiality assessment</li> <li>● Double materiality assessment</li> </ul>	<p>The Risk Management unit was included to examine how sustainability risks are integrated into corporate management systems and to assess the implementation of the double materiality principle, in line with regulatory requirements.</p>

<p><b>Sustainability</b></p>	<ul style="list-style-type: none"> <li>● Integration of sustainability in the strategy</li> <li>● Materiality assessment</li> <li>● Double materiality assessment</li> <li>● Assurance</li> </ul>	<p>The Sustainability unit plays a pivotal role in the implementation of the new regulatory framework. It is directly involved in defining the sustainability strategy, conducting materiality and double materiality assessments, and preparing disclosures subject to assurance, making its perspective essential for the analysis.</p>
<p><b>Investor Relations and market analysis</b></p>	<ul style="list-style-type: none"> <li>● Integration of sustainability in the strategy</li> <li>● Restatement of sustainability report content</li> </ul>	<p>The Investor Relations and market analysis unit was selected for the purpose of investigating the impact of the CSRD on communication with financial stakeholders.</p>

Source: own elaboration

**Table 21.** Interview summary table of Alpha’s professionals

<b>Code</b>	<b>Role</b>	<b>Duration</b>	<b>Corporate Unit</b>
<b>P01</b>	Head of Sustainability Reporting	58 minutes	Consolidated sustainability statement (CSS)
<b>P02</b>	Head of Portfolio & Process Risks	1 hour and 37 minutes	Risk management
<b>P03- P04</b>	Members of the Sustainability unit team	44 minutes	Sustainability
<b>P05- P06</b>	Members of the Investor relations unit team	36 minutes	Investor relations and market analysis

Source: own elaboration

All interviews were recorded, transcribed and translated in English when conducted in Italian. Furthermore, considering the nature of this research, which aimed to investigate the transformative potential of CSRD with a view to organisational change, the data derived from interviews were analysed in a reflexive and interpretative way (Berg and Lune, 2012) and in particular, the case study interviews were coded according to the Gioia methodology (Gioia et al., 2013), in order to ensure inductive rigour and transparency in the abstraction process, developing it through an abductive logic (Dubois and Gadde, 2002; Gehman, et al., 2018).<sup>66</sup>

### **3.4.3 Other sources**

In order to triangulate the data obtained through content analysis and semi-structured interviews, it was decided to participate in technical meetings, seminars and webinars aimed at monitoring and examining progress relating to the sustainability reporting regulations, i.e. the CSRD and the ESRS. It is important to note that, during the research period, we were able to attend the most significant events of this type, which took place in a variety of different contexts. These included conferences held in Italy dedicated to analysing and discussing the changes introduced by the CSRD and ESRS, conferences

---

<sup>66</sup> See the findings paragraphs for more details on the interviews’ analysis.

organised in Spain providing opportunities for institutions, businesses, and social organisations to discuss the regulatory implementation process, and informative webinars promoted by EFRAG aimed at illustrating and discussing official positions and technical developments relating to the definition of ESRS. Field notes (Hammersley & Atkinson, 2007) were taken during these meetings, recording the most recurring themes that emerged in the debate and the different stakeholder interpretations of sustainability and its regulation.

In addition to these field notes, others were collected during meetings with Alpha S.p.a., the company that co-finances the author's PhD project. The present researcher's PhD programme involved engagement with the company in the form of meetings. At an initial stage, the researcher was tasked with the analysis of preliminary drafts of the ESRS, with the subsequent presentation of the contents to relevant company departments (integrating reporting team) for the purpose of information dissemination. In this particular context, the researcher assumed the role of an observer during the internal gap analysis conducted by Alpha S.p.a. between its integrated report and emerging regulatory requirements. The objective of this analysis was to provide a framework for the development of a 2023 report that is aligned with the established European sustainability standards.

This collaboration enabled an in-depth analysis of regulatory requirements and developments, as well as access to a privileged standpoint during interviews and empirical endeavours. This position enabled the author of the thesis to adopt the role of insider researcher, a figure recognised in methodological literature for their ability to offer direct access and a deeper understanding of the organisational context under observation (Unluer, 2012). As Unluer (2012) has demonstrated, the insider researcher perspective has significant advantages in terms of access to information, understanding of social dynamics and interpretation of shared meanings within the organisation. However, this perspective also requires careful reflection in order to manage potential biases and maintain an appropriate analytical distance. In this study, the “internal” position has facilitated a more detailed reconstruction of institutional response processes, enabling observation “from within” of how the company interpreted and implemented the requirements arising from the new sustainability reporting standards. Moreover, while observing and documenting the phenomenon under investigation, the researcher's role is situated within a more extensive research framework that acknowledges the potential of research in the domain of sustainability reporting to enhance comprehension and propagation of organisational change processes. In this sense, the extant literature on SEA emphasises the potential of researchers to accompany and document these processes, thereby promoting a better interpretation of the transformations that Non-Financial Accounting and Reporting regulations can bring about (Adams & McNicholas, 2007; Mitchell et al., 2012). This perspective constitutes an element of the emancipatory ethos of the social accounting project, which does not necessitate direct intervention by the researcher in corporate processes. Rather, it entails the capacity to critically observe how organisations respond to institutional and regulatory pressures. In this research, the

approach has been translated into a participatory yet non-interventionist form of observation, with the objective being the acquisition of an in-depth understanding of the manner in which the company interprets and adapts its reporting practices to new European regulatory requirements, without exerting any direct influence on their development.

Starting from these considerations, it should be noted that the choice of Alpha S.p.a. as the subject of analysis in this third chapter is derived from two factors. Firstly, the company's status as the exclusive Italian champion in the Aerospace & Defence (A&D) sector, as explained in more details in section 3.3.2: "The Alpha S.p.a. case as representative of the Italian A&D sector". Secondly, the possibility of direct and informed access to internal practices and decision-making processes. In such a context, the ability to access information is of particular relevance, given the typically confidential and strategic nature of the A&D sector. Therefore, the researcher's position as an internal observer was essential for a thorough understanding of the institutional and organisational logic that guides the company's response to regulatory pressures on sustainability.

### **3.5 Findings**

The subsequent section has been designed to present the results of the content analysis of the sustainability reports published in the form of integrated reports from 2020 by Alpha S.p.a., as well as the semi-structured interviews that have been conducted. The ensuing paragraphs are dedicated to elucidating the strategic responses that can be deduced from the content analysis. These responses are then interpreted through the lens of organisational change, with a longitudinal perspective from 2016 to 2024. The final section of the findings presents an illustration of the contextual interviews and the case study interviews, elucidating the coding process applied to the latter and the overall triangulation with the results of the content analysis.

#### ***3.5.1 The content analysis***

In order to comprehend the content analysis and the subsequent identification of the organisation's strategic responses, it is imperative to delineate the factors that have influenced them over the years. In other words, it is necessary to identify what Oliver's theory defines as antecedents.

##### *Cause: why the institutional pressures exist*

As a company influenced by the state and operating in a sensitive industry, Alpha faces significant pressures to align with societal expectations regarding transparency, sustainability issues, and ethical conduct (Legitimacy and accountability). Moreover, European and global markets demand technological innovation and sustainability as conditions for competitiveness (Efficiency and competitiveness).

*Constituents: who is exerting pressure*

The organisation is subject to a multitude of demands and stakeholders, including the Italian government (as shareholder and regulator), prioritising national security and industrial strategy; supranational institutions (EU, NATO, OECD), imposing regulatory, security, and sustainability requirements; investors and financial markets, increasingly attentive to ESG metrics; and civil society and NGOs, questioning the legitimacy of defence companies' role in sustainability.

*Content: what is being demanded*

The organisation is subject to several legal and regulatory obligations in relation to sustainability reporting and disclosures, as outlined in the European Sustainability Finance Strategy. Corporate governance reforms and ethical standards have been implemented to enhance transparency and mitigate the risk of corruption. Environmental targets have been introduced, particularly with regard to green aviation, decarbonisation, and energy efficiency. Social responsibility obligations include workforce development and human rights in the supply chain.

*Control: how compliance is monitored/enforced*

The institutional pressures exerted are characterised by regulatory enforcement, emanating not only from the EU legislation on reporting and sustainability, but also from the oversight activities of the Italian government in its capacity as owner. A plethora of market mechanisms have been identified as factors that serve to increase the level of pressure, with ESG ratings and investor scrutiny being cited as notable examples. These mechanisms have been found to play a significant role in determining access to international capital. Furthermore, the issue of reputational monitoring is also worthy of notes. Indeed, defence companies' claims with regard to sustainability are closely observed by the media, non-governmental organisations and stakeholders.

*Context: environmental conditions influencing response*

The environmental context in which the organisation is operating is characterised by a high degree of environmental uncertainty and an intensification of pressures generated by shifting geopolitical scenarios (e.g. war in Ukraine, EU defence integration) and the instability of the European regulatory context influenced by a change in the political stance of the heads of institutions (e.g. new Omnibus package). The global presence of Alpha exposes the company to a variety of institutional environments, including those of Italy, Europe, and the transatlantic region. This aspect is particularly salient given the high level of interconnectedness that characterises these contexts. The A&D sector is subject to a high level of regulation, is politically sensitive, and is often contested in terms of its legitimacy, with institutional pressures playing a particularly salient role.

Therefore, the company faces strong coercive and normative pressures (cause, constituents, content), with tight control mechanisms (state, EU regulation, investor

monitoring) in an uncertain and contested context. The antecedents are delineated in table 22 below.

**Table 22.** Italian sample antecedents

<b>Oliver's Antecedent</b>	<b>Alpha S.p.a. case – Italian A&amp;D Sector</b>
<b>Cause</b>	<ul style="list-style-type: none"> <li>- Legitimacy pressures due to state ownership and sensitivity of the defense sector</li> <li>- Efficiency and competitiveness demand from EU/market</li> <li>- Societal expectations for accountability and ethical conduct.</li> </ul>
<b>Constituents</b>	<ul style="list-style-type: none"> <li>- Italian state as majority shareholder and regulator</li> <li>- EU institutions</li> <li>- NATO and international alliances</li> <li>- Financial markets and sustainable investors</li> <li>- Civil society and NGOs challenging defense legitimacy</li> </ul>
<b>Content</b>	<ul style="list-style-type: none"> <li>- Sustainability disclosures aligned with NFRD/CSRD</li> <li>- Corporate governance and anti-corruption reforms.</li> <li>- Environmental targets: decarbonization, eco-innovation in aerospace.</li> <li>- Social responsibility: workforce development, supply chain due diligence.</li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>- Regulatory oversight by EU and Italian state</li> <li>- Market discipline via ESG ratings and investor scrutiny</li> </ul>

	<ul style="list-style-type: none"> <li>- Reputational monitoring by media, NGOs, and watchdogs</li> <li>- Audit and compliance systems within corporate governance.</li> </ul>
<b>Context</b>	<ul style="list-style-type: none"> <li>- High uncertainty: geopolitical shifts</li> <li>- High interconnectedness: multinational operations</li> <li>- Highly regulated and legitimacy-contested industry (A&amp;D)</li> <li>- Organisational resources: size, R&amp;D capacity, political ties enable proactive strategies.</li> </ul>

Source: own elaboration

In the light of the above-mentioned antecedents that influenced the company's strategic decision-making, another key element in identifying the organisation's strategic responses is the result of the content analysis, which was carried out using eight labels, as outlined in the methodology section. The following analysis highlights information that proved useful in understanding the company's strategic choices.

#### *Integration of sustainability in the strategy*

Alpha through its reports demonstrates a strong commitment to integrating sustainability into its core strategic vision and business operations.

- **Early Integration (2016):** The 2016 Sustainability Report, the first under the new “Alpha” brand, explicitly stated its goal to integrate sustainability factors with business strategies to support industrial processes and enhance competitiveness. A new sustainability governance model was established, including a dedicated Nomination, Governance and Sustainability Committee within the Board and a Sustainability Council, formalizing the integration of ESG topics into decision-making and strategic guidelines. Sustainability was explicitly integrated into the Industrial Plan 2017-2021. The company's interpretation of sustainability at this stage was to manage excellently all levers that can combine responsible development and competitiveness. The company also recognized external drivers such as the growing influence of responsible investors (holding 20% of Alpha’s shares) and the UN SDGs.
- **Strategic Vision (2020):** With the launch of a new strategic plan (projected to 2030), sustainability became a foundational element, outlining strategic priorities for innovation and sustainable development and connecting sustainability to long-term value. The

sustainability plan was elaborated to cover the entire value chain, identifying thematic clusters for action aligned with the SDGs and the European Green Deal. A significant indicator of this integration is that over 50% of Alpha's 2020 investments contributed to the achievement of the SDGs. Top management's commitment was further expressed by linking ESG objectives to their remuneration policy.

- Deepening Integration (2023-2024): the company's integrated reporting approach, adopted since 2020, has proactively anticipated the CSRD requirements. The Industrial Plan 2024-2028 (refined to 2025-2029 in the 2024 report) explicitly drives development strategies with a strong focus on sustainability, innovation, and digitalization. Sustainability is viewed as a reference framework for managing risks and opportunities as well as for long-term planning, under the coordination of the Chief Sustainability Officer. The new Sustainability Plan 2024-2028 (updated in 2023 and 2024) is fully aligned with the Industrial Plan, emphasizing eco-design, decarbonization, circularity, sustainable supply chain, and social impact through high-impact projects. Financial planning and investment decisions are made with sustainability parameters in mind, and Alpha supports the Principles on Integrated SDG Investments and Finance. Concrete links include ESG objectives influencing 20% of long-term and 10% of short-term variable remuneration in 2023, evolving to 5% of CEO/GM/executives' long-term variable remuneration linked to CO2 emission intensity reduction in 2024. Furthermore, the company aims to include ESG criteria in at least 70% of new major tenders awarded by 2028. The establishment of a Sustainability Operational Model (Group Directive) and the Chief Sustainability Officer reporting directly to the CEO underscore the structural embedding of sustainability throughout the value chain.

### *Changes in the Business Model*

Alpha has undergone significant transformations to adapt its business model, moving towards greater integration, digitalization, and a service-oriented approach.

- Single brand transition (2016): A fundamental shift in operations was the completion of the one brand transition on January 1, 2016. This involved consolidating activities under a single brand to enhance efficiency and strategic coherence. The new structure streamlined operations, with divisions managing end-to-end business activities autonomously, supported by a new product catalog that emphasized integrated, transversal solutions across key domains. The transition was characterized by risk management reinforced in the supply chain and new cybersecurity protocols for suppliers.

- Strategic Pillars (2020): The Strategic Plan (projected to 2030) was focused on evolving from a product supplier to a global partner, reinforcing the international commercial network, and optimizing the portfolio around core capabilities to achieve leadership;

modernizing the organisation and adopting innovative business models<sup>67</sup>; and accelerating innovation, particularly in Artificial Intelligence (AI), advanced sensors, autonomous systems, and Space applications, leveraging intellectual property, and investing in innovative startups. 2020 was characterized by a model business adaptation focused on digital transformation, innovation, sustainability, with an emphasis on cybersecurity, AI, automation Supply chain transformation pillars: Sustainable Growth, Efficiency, OpEx, Security & Compliance.

- Digital Transformation and Supply Chain Focus (2023-2024): The new management team appointed in 2023 prioritized streamlining operations, enhancing Alpha's geopolitical role, and transforming processes and products through innovation and digitalization. This included a pronounced shift towards a service-oriented model, emphasizing cybersecurity, AI, and automation. The supply chain transformation became a key strategic pillar, driven by specific programs designed to strengthen supplier resilience, innovation, and sustainability. The development and application of Digital Twin technology across design, production, and service phases, exemplifies the profound digitalization of the business model. By 2024, the vision matured to transform the company into a multi-domain, interoperable, and sustainable entity within a digital continuum, with digitalization as the core enabler for global security scenarios. A concerted effort is being made to reduce reliance on critical raw materials through technological innovation, supply chain diversification (for example, through the incorporation of sustainability criteria in supplier evaluations and the establishment of partnerships with SMEs), and the implementation of circularity mechanisms. The virtualisation of customer services (e.g. remote collaboration, online training) has been demonstrated to enhance efficiency and reduce environmental impact.

### *Management System*

Alpha maintains robust and evolving management systems to ensure responsible business conduct, risk control, and operational excellence.

- In 2016, a new sustainability governance model was implemented, formalizing the integration of sustainability into decision-making via a Board Committee and a Sustainability Council. Alpha adopted an integrated management system for responsible business conduct, characterized by continuous risk monitoring and control, and a risk-based approach. This included issuing new internal guidelines on various risk areas such as consultants, trade compliance, and information security. The company achieved ISO

---

<sup>67</sup>A shift towards offering customized solutions and value-added post-sale support services (servitization), including integrated services, hardware/software updates, and training programs to build long-term relationships with customers.

14001:2004<sup>68</sup> certification for 47 sites and established a new unitary energy management model.

- By 2020, Alpha's corporate governance aimed to protect long-term value, manage resources optimally, and ensure transparency and integrity. Its responsible business conduct model, inspired by national and international best practices, relies on internal codes of conduct, periodic updates, continuous employee training, due diligence tools, and internal controls. This robust framework led to Alpha reaching the highest level (Band A) in Transparency International's Defence Companies Index on Anti-Corruption and Corporate Transparency and maintaining its ISO 37001 (Anti-Bribery Management System) certification, making it the first company in the global aerospace, defense, and security top ten to do so. The Business Continuity Management System (BCMS) was ISO 22301 certified for specific corporate functions and data centers. Crisis Units were activated to manage emergencies like the COVID-19 pandemic, focusing on health risks and safe operations.

- Integrated and Digitalized Systems (2023-2024): Alpha's management system in 2023 was structured around corporate governance frameworks aligned with international compliance standards, ISO certifications for environmental management, quality assurance, and cybersecurity, and a comprehensive Enterprise Risk Management (ERM) for assessing and mitigating operational, financial, and reputational risks. Key elements included its long-standing tax strategy (approved by the Board since 2017) and participation in Italy's Cooperative Compliance scheme. The new Supplier Code of Conduct, published in early 2024, reinforced ethical principles, human rights, diversity, and environmental sustainability across the supply chain. By 2024, a formal Sustainability Operational Model (Group Directive) was adopted, defining actions, roles, and responsibilities for sustainability integration, with the Chief Sustainability Officer reporting directly to the CEO. A dedicated internal control model was implemented for the preparation of the Consolidated Sustainability Statement (CSS), using financial data controls as a reference, with annual testing by the Internal Audit function. The company also published a Group Biodiversity Policy in June 2024 and updated its Business Compliance rules. The company's production system, an agile production system inspired by World Class Manufacturing, was further strengthened in 2024 to optimize efficiency, productivity, quality, and safety.

### *Materiality Assessment*

Alpha conducts regular materiality assessments to identify and prioritize key issues relevant to both its operations and stakeholders.

---

<sup>68</sup> International voluntary standard that established the requirements for an Environmental Management System (EMS), with the aim of helping organisations manage their environmental aspects, reduce costs and improve their image.

- **Structured Approach (2016):** Alpha updates its materiality analysis regularly to identify priority issues, considering new sustainability priorities through a risk-based approach. This process involved a multi-dimensional analysis of the external context, including a benchmark of the aerospace, defense, and security sector, media analysis (approximately 7.400 press releases), and the evaluation of ESG performance reports from third-party companies. Internal relevance was assessed through interviews with divisional and organisational unit heads. The results were then validated by top management and presented in a materiality matrix.
- **Stakeholder Engagement (2020):** The materiality analysis, updated from 2020 to 2021, considered regulations, best practices, sector priorities, and public opinion on economic, environmental, social, and corporate governance issues. Stakeholders were directly involved through an online questionnaire. Key themes identified as highly relevant for stakeholders, using big data tools included cyber security, quality, safety and performance of solutions, customer intimacy, and responsible business conduct. The analysis aims to identify and evaluate priority themes for stakeholders and compare them with the company's priorities, considering generated impacts and any misalignments, to guide strategic objectives.
- **Enhanced Scope (2023-2024):** In 2023, the materiality analysis was refined to reflect changes in the regulatory framework and market trends, focusing on identifying the main impacts generated by Alpha throughout the value chain (economy, environment, society, human rights). The process directly involved more than 500 external and internal stakeholders across 13 categories, conducted in three stages: analysis of the regulatory framework, identification of impacts, and assessment of their significance. The outcomes revealed strong correlations between identified priorities and core business activities, highlighting the link between security, technology, climate change, and social impacts. Notably, the protection of human rights emerged as a new priority topic, while “tools and ways of conducting business” were recognized as foundational elements no longer needing separate materiality assessment. The 2024 update continued this annual review, leveraging an analysis of regulatory developments (especially European and future CSRD), market trends (financial community priorities), and a benchmark of 22 peers and competitors. It was also mapped against Alpha’s ERM, covering ESG risk and opportunity areas. This process identified 29 impacts (positive, negative, actual, potential) and 35 ESG risk/opportunity drivers, with 8 of these being new compared to 2023. The most relevant issues identified include skills development, global security, climate change, environmental impact of material use, circularity, cybersecurity, resilience, and data protection.

### *Double Materiality*

While the explicit term “double materiality” was not initially used, Alpha’s approach has consistently encompassed its principles, formally adopting and enhancing it in recent years in line with new European regulations.

- **Implicit Application (2016-2020):** In 2016, although not explicitly named “double materiality”, Alpha’s materiality assessment considered both the “importance for” the company (internal relevance) and factors impacting stakeholders (external relevance), forming a foundational element of what later became known as double materiality. The assessment was updated in 2020, considering external stakeholder expectations, regulatory changes, and business priorities, assessing relevance for both stakeholders (external impact on society and environment) and the influence of sustainability issues on Alpha’s financial value creation (internal financial impact). The materiality matrix served as a tool to map sustainability issues based on their importance to both stakeholders and Alpha’s strategic management. This approach was aligned with GRI G4 (stakeholder-driven), not fully with the CSRD double materiality definition.

- **Formal Adoption and Enhancement (2023-2024):** In 2023, Alpha conducted a “preliminary exercise of double materiality”, explicitly integrating the perspective of impact materiality (inside-out: Alpha’s impact on the planet, people, and economy through its value chain) with the financial materiality (outside-in: risks and opportunities associated with an issue and their impact on the company's value creation). This process was aligned with ESRS and market best practices, and closely integrated with the company's ERM findings. The results were intended to guide the integration of future CSRD requirements. By 2024, the CSS was prepared in accordance with Legislative Decree 125/2024 (transposing CSRD in Italy) and ESRS, which mandates double materiality analysis. The process involves three steps: identification, assessment, and prioritization of impacts, risks, and opportunities. Impact materiality was informed by regulatory requirements, past Alpha impacts, peer benchmarks, business plans, and AI-based data analysis. Financial materiality leverages the company's ERM system. The outcomes of this double materiality process, which is part of the limited assurance scope, are shared with the Sustainability and Innovation Committee and approved by the CEO.

### *Assurance*

Alpha’s sustainability reporting is consistently subject to external assurance, progressing from limited to reasonable assurance for key indicators.

- **Limited Assurance (2016-2023):** As early as 2016, Alpha’s non-financial statements were subject to a limited assurance review by an independent auditor, confirming their adherence to reporting standards like ISAE 3000 (Revised). This practice continued in 2020, with the auditor providing limited assurance on the Non-Financial Statement and starting from 2021, on a voluntary basis, the reasonable assurance on a set of non-financial performance indicators (ESG) that are considered important and strategic for the Group. In 2023, the reports confirmed that sustainability reporting is subject to external limited assurance to ensure data reliability, covering ESG indicators, emissions data, and financial performance metrics, with a verification statement from an independent auditor and external auditor providing reasonable assurance on the selected ESG indicators.

- Progression to a partial Reasonable Assurance (2024): Alpha’s CSS in 2024 was subject to a limited assurance engagement as required by Legislative Decree 125/2024. Crucially, Alpha also undertook a reasonable assurance engagement on a selection of indicators for the year, stating it is among the very first companies in Italy to achieve reasonable assurance on its sustainability KPIs since the 2021 financial statement. The double materiality process itself is included within the scope of this limited assurance engagement. This higher level of assurance provides a greater degree of confidence in the reported data, reflecting increased maturity in their sustainability reporting and internal control systems. The new obligations from Legislative Decree 125/2024 have led to a higher effort from the auditing firm, indicating the increased rigor involved.

#### *Reconfiguration of Assurance Through New Technologies*

While there are no direct explicit mentions of “reconfiguration of assurance through new technologies”, it is strongly indicated a foundational investment in digital transformation and data management that implicitly supports future advancements in assurance processes.

- Enabling Digitalization (2020-2023): Although the 2016 and 2020 reports do not directly link new technologies to assurance processes, they emphasize significant investments in digitalization, cybersecurity, and advanced technologies. Alpha launched one of the world's most powerful supercomputers, for complex simulations, data processing, AI development, and cloud computing, which are foundational for managing large datasets required for comprehensive reporting. The company's adoption of AI, big data, and Massive open online courses (MOOC) platforms for skill development also underscores its digital maturity, in fact, Alpha’s management system includes digital transformation initiatives, such as AI-driven risk modeling and cloud-based project tracking, which, while not direct assurance, contribute to the data quality and control environment that assurance relies upon.

- Digital Data Governance and Future Potential (2024): While the 2024 report does not directly discuss blockchain, AI, or other tech in the assurance process, it mentions digital transformation in data governance. The “fully digitised, bottom-up collection and verification process” for ESG data directly contributes to its robustness and consistency, which are critical for effective assurance. The ongoing upgrade of the company’s supercomputer is positioned within the Sustainability Plan to support complex simulations and AI development, further enhancing the capacity for sophisticated data management relevant to all reporting and assurance activities. The use of AI-based data analysis in the double materiality process itself signals the advanced analytical capabilities that could eventually be leveraged for more technologically driven assurance processes, even if not yet fully implemented for the assurance itself. The emphasis on “secure-by-design”<sup>69</sup> and cybersecurity for protecting information and systems also

---

<sup>69</sup> Any product or process must have intrinsic cyber security characteristics right from the design phase, to build a safe and resilient cyberspace.

contributes to the integrity of the data being reported and assured. These technological advancements create a strong foundation for future reconfiguration of assurance through new technologies, even if the current focus is on digitizing data collection and governance.

#### *Restatement Sustainability Report content*

Alpha acknowledges and explicitly addresses restatements or changes in reporting methodologies to ensure transparency and comparability.

- **Transparency in Changes (2016-2020):** The 2016 established a commitment to transparently report any changes in figures or methodologies. Methodological note explains updates/restatements. Data corrections/reclassifications are specified and adjustments in accordance with GRI and Italian regulations too. Sections revised/updated (methodology changes, new data). The 2020 report clarified scope/reason for restatements and followed GRI Standards, Italian D.Lgs. 254/2016 (Italian NFRD transposition), incorporating International Integrated Reporting Council Framework (IIRC), SASB Aerospace & Defence, Task Force on Climate-related Financial Disclosures (TCFD).

- **Methodological Updates (2023-2024):** The 2023 report indicates that “Some sections of previous sustainability reports have been revised and updated to reflect changes in methodology or newly available data”, and that “the report clarifies the scope and reason for restatements, ensuring transparency in data adjustments”. This highlights an active process of refining reporting based on evolving standards (GRI G4, Italian D.Lgs. 254/2016, IIRC, SASB, TCFD) and new data. In 2023 Alpha updated financial assumptions due to sustainability-linked investments. Furthermore, the 2024 report noted that some historical sustainability performance data is now available in the “Annex to the Report on Operations – Note of CSS”. A key observation in the 2024 report is that Alpha’s performance against the European Taxonomy is “scarcely comparable with what was published last year” due to new regulatory additions in 2023 and the expansion of disclosure requirements, underscoring the dynamic nature of sustainability reporting and the need for clear communication on such changes. The company for 2024 is aligned with GRI, SASB, ESRS, fulfilling D.Lgs. 125/2024, referencing EU delegated acts. The 2024 report included a reconciliation table for ESRS content and incorporated data points from the SFDR and the EU Taxonomy Regulation.

#### ***3.5.1.1 Alpha S.p.a. strategic responses***

Drawing upon the findings of the preceding analyses of antecedents and content analysis, this section elucidates the strategic responses and tactics employed by Alpha to navigate

the institutional pressures experienced during three distinct periods characterised by significant environmental disturbances (2016, 2020 and 2023-2024).

### *2016 – High acquiescence*

In 2016, Alpha published its inaugural Sustainability and Innovation Report under its new corporate brand. The objective of the report was to present the preliminary findings from the implementation of the one brand model and the pursuit of sustainable growth with a view to creating long-term value. This finding suggests that, while compliance was a motivating factor, there was also a strategic intent to embed sustainability as a long-term value creation mechanism. This objective was realised through the establishment of a novel sustainability governance framework, encompassing the formation of a dedicated Committee and a Sustainability Council, thereby signifying the formal integration of the recently introduced reporting obligations. To elaborate further, the establishment of this novel sustainability governance, in conjunction with the integration of ESG themes into business strategies, signifies an internalisation of sustainability that transcends the confines of mere regulatory obligation. The emphasis on anti-corruption and human rights further reinforces this internal commitment. It is explicitly stated in Alpha's report that it was prepared in accordance with the G4 Sustainability Reporting Guidelines. Furthermore, the report takes into consideration the topics of the legislative decree 254/2016, which adopted the NFRD.

This period is characterised by a clear acquiescence, primarily through compliance and imitation, as evidenced by the compliance with new regulatory mandates and the establishment of the basic organisational structures necessary to implement them. The adoption of the GRI G4 guidelines, coupled with a pronounced emphasis on the SDGs, signifies the company's adherence to widely accepted non-financial reporting standards. The new corporate identity provided a natural vehicle for integrating sustainability from the outset, moving beyond a mere reaction to incorporating it as a new "habit" for value creation. Indeed, the transition to a new identity and the alignment of sustainability with industrial planning can be interpreted as a first attempt at compromise, whereby internal business model changes and strategic objectives are balanced with emerging external (institutional) expectations for transparency and sustainability integration. Indeed, the incorporation of sustainability principles into the Industrial Plan 2017–2021 does not signify a radical transformation; rather, it represents a harmonious equilibrium between competitiveness and responsibility. This approach is designed to satisfy investors, with a 20% focus on ESG criteria, while concurrently safeguarding defence legitimacy.

It is evident that Alpha adopted a proactive approach in preparing for, or responding to, the then-new NFRD requirements. Although the 2016 decree was formally applicable to financial years commencing on 1 January 2017, Alpha's 2016 report had already demonstrated proactive alignment. This strategic decision is indicative of an anticipation of future regulatory requirements and a desire to gain legitimacy. However, it is evident that there is a paucity of disclosure regarding arms-related activities, with sensitive information remaining opaque. This is linked to the high level of privacy characterising

the sensitive information available to the company and the possibility of excluding such information under EU regulation. The company has strategically avoided this by using a concealment technique.

#### *2020 – Medium acquiescence leaning towards compromise/influence*

By 2020, Alpha had transitioned to an integrated report, thereby demonstrating ongoing compliance with D.Lgs. 254/2016. However, it went further by explicitly adopting multiple international reporting frameworks beyond basic GRI, including IIRC, SDGs, SASB, and TCFD. The Strategic Plan (projected to 2030) placed sustainability at its core, with commitments and actions extending across the entire value chain. This strategic embedding, incorporating the alignment of remuneration with ESG objectives, signifies a more profound form of integration than mere reporting. It points to a shift that transcends mere compliance, suggesting compromise between external legitimacy demands and internal incentive systems.

Alpha updated its materiality analysis using intelligence and big data analytics, and involved a broader range of stakeholders through online questionnaires. This sophisticated approach to understanding stakeholder priorities and shaping reporting content also involves the framing of defence innovation (AI, cybersecurity, space) as compatible with the SDGs and the European Green Deal. It represents a compromise and a first attempt to proactively shape the narrative based on data, i.e. influence, due to a selective reinterpretation of sustainability to fit core business.

The company's agile response to the pandemic, centred on the safeguarding of employment and the maintenance of a robust supply chain, exemplifies its adaptive capacity and a dedication to its social responsibility. The attainment of the highest “A” rating in Transparency International's Defence Companies Index on Anti-Corruption and Corporate Transparency is indicative of a concerted effort to gain external legitimacy and proactively manage its reputation through responsible business conduct. Investments in “open innovation” and collaborations with universities, influencing future technologies and talent development, suggest a degree of proactive manipulation of industry standards and human capital development. It is imperative to note the strategic avoidance of controversial disclosures, such as the use of arms and the social impact in conflict zones, despite the amplification of technological innovation.

#### *2023/2024- Anticipatory Compliance and Strategic Alignment leaning towards influence*

The 2023 report explicitly mentions an “impact materiality process covering both regulatory developments, with attention to European regulations and standards which will become applicable in the future”. This proactive consideration of future regulations (CSRD/D.Lgs. 125/2024) prior to the full mandatory application of these provisions exemplifies an anticipatory compliance approach. The adoption of the double materiality approach by Alpha at an early stage in its development can be seen as a strategic decision to remain at the forefront of technological advancement, reflecting an influential posture within its sector. The D.Lgs. 125/2024 places significant emphasis on value chain

reporting, including for products, services, and the supply chain. The existence of the company's pre-existing initiatives, such as sustainability training for procurement and suppliers, and the Assessment and Development for Sustainability programme for suppliers, indicates a strong foundation for meeting these expanded requirements. These initiatives reflect past compromise and early influence strategies that now facilitate smoother anticipation of new regulations.

During this period, Alpha exhibits a lower level of passive acquiescence (i.e. higher proactivity). The company is proactively anticipating future regulatory demands and adapting its reporting and governance structures to meet higher standards (e.g., impact materiality, ESRS references). This strategic foresight positions Alpha as a leader rather than a mere follower in the field of sustainability reporting.

By adopting the “impact materiality” concept and referencing the ESRS even before full legislative mandates (CSRD/D.Lgs. 125/2024), Alpha demonstrates a strategic intent to lead and shape its reporting practices to align with the highest upcoming international standards, rather than simply reacting to them.

The notion of sustainability has become an integral component of Alpha’s business model and decision-making processes. The Industrial Plan 2024-2028 incorporates sustainability objectives across the entire value chain, including decarbonisation (in alignment with Science Based Targets initiative, SBTi), circular economy practices, and supply chain sustainability programs. Alpha S.p.a. implemented ESG criteria in the evaluation of suppliers and fostered partnerships with SMEs for the purpose of sustainable development. The management system was structured with corporate governance frameworks, ISO certifications, ERM, and digital transformation initiatives. The report confirmed alignment with the GRI, the SASB, the sustainability standards, and Italian Legislative Decree 254/2016. It also mentioned the use of International Standards on Auditing (ISAE) 3000 (Revised) for limited assurance on selected ESG indicators. The integration of sustainability into the Industrial Plan 2024-2028 and supplier evaluations demonstrates a sophisticated approach to balancing external sustainability demands with internal strategic and operational goals. This is not merely a matter of adherence, but rather the establishment of a harmonious balance between institutional pressures and organisational self-interest, involving a process of compromise. Indeed, by 2023, the NFRD was fully operational, and the CSRD was imminent, engendering substantial legal coercion and a considerable degree of anticipated legitimacy through comprehensive reporting. It is evident that Alpha’s actions signify proactive endeavours to meet and surpass these expectations, thereby corroborating Oliver's assertion that organisations may be driven by interests and seek stability and predictability.

The 2023 report anticipates the implementation of a double materiality methodology with AI-assisted data analysis in 2024, which falls within the purview of the limited assurance scope. Alpha established a structured “Sustainability Operational Model”, designated “Sustainability Managers” across divisions, and created a “Sustainability Committee” chaired by the CEO to ensure cross-functional integration and oversight. The monitoring of sustainability performance is achieved through the utilisation of Key Performance Indicators (KPIs) and dashboards, with the integrity of data being assured by means of

internal audits. The adoption of double materiality, particularly in conjunction with AI-assisted data analysis, directly addresses a fundamental, intricate requirement of the CSRD. The establishment of a dedicated “Sustainability Operational Model” and the appointment of Sustainability Managers and a CEO-chaired Committee represent robust organisational changes designed for comprehensive and effective compliance with the more stringent governance and reporting demands of the CSRD. This demonstrates a strategic commitment to formalising and professionalising sustainability reporting.

The 2024 decree stipulates more stringent reporting standards, encompassing double materiality and specific assurance requirements, for the ensuing financial years. It is evident that Alpha’s investment in sophisticated methodologies (AI-assisted analysis) and governance structures is indicative of its sustained strategy of acquiescence to robust legal coercion and the pursuit of legitimacy. This proactive approach to compliance has been shown to minimise risks and enhance organisational fitness, both social and economic. The potential benefits of such measures are such that they far outweigh any loss of autonomy, as they demonstrate that control of the organisation can be maintained whilst avoiding negative repercussions.

The continuous refinement of its reporting process, incorporating specific indicators from new European regulations, signifies a mature strategic response to evolving institutional pressures. The company’s commitment to reporting on its value chain efforts, even when information is not fully available, demonstrates a forward-looking approach to compliance and transparency.

In conclusion, it is evident that, in 2023, Alpha exhibited a reduced degree of passive acquiescence, concomitant with an augmented level of proactivity. This signifies a transition from a “follower” to a “leader” in the realm of sustainability reporting. The company proactively adapted its governance and supply chain systems in anticipation of coercive pressures, a phenomenon Oliver (1991) interprets as interest-driven compliance aimed at minimising uncertainty and maximising legitimacy. Conversely, by 2024, the company had transitioned to a deep institutionalisation of sustainability, integrating sustainability considerations into governance, risk management, and assurance processes. This represents a concession to coercion (strict legal requirements) and manipulation, as Alpha seeks to influence the defence sector’s legitimacy under EU sustainability rules.

It is evident that Alpha has undergone a significant evolutionary journey in its strategic responses from 2016 to 2024, influenced by both internal transformations and evolving external institutional pressures, as depicted in Table 23 below. Its strategic response to institutional pressures related to non-financial reporting and sustainability has demonstrably evolved from a high level of acquiescence in 2016 to a more proactive and influential stance by 2024. To elaborate, Alpha underwent a transition from reactive compliance (2016) to strategic balancing (2020), subsequently to anticipatory leadership (2023), and ultimately to institutional shaping with selective resistance (2024). This evolution signifies a shift in Alpha’s approach to non-financial reporting. The company has transitioned from a reactive stance to an increasingly embedded and anticipatory component of its overall business strategy. This shift is driven by a desire for long-term

value creation and enhanced competitiveness in a rapidly evolving sustainability landscape. The dual strategy employed by Alpha involves pursuing legitimacy through compliance while actively influencing how sustainability is defined in the aerospace and defence sector.

**Table 23.** Alpha S.p.a. strategic responses to institutional pressures

YEAR	ALPHA'S STRATEGIC RESPONSES
2016	<b>Acquiescence</b> (formal compliance with NFRD and GRI) while practicing <b>avoidance</b> through limited disclosure on sensitive topics. <b>Compromise</b> appeared in framing sustainability as compatible with competitiveness, mainly to reassure investors.
2020	Under the Strategic plan (projected to 2030), <b>acquiescence</b> (alignment with global sustainability frameworks) and <b>compromise</b> (tying investments and incentives to SDGs) were expanded. <b>Avoidance</b> persisted in selective reporting of controversial topics.
2023	With CSRD on the horizon, <b>anticipatory acquiescence</b> was adopted, proactively embedding “impact materiality” and referencing ESRS before mandates. Simultaneously, <b>compromise</b> was visible in value chain sustainability initiatives, while <b>manipulation</b> emerged in attempts to be a leader rather than a follower in sustainability reporting.
2024	A more robust <b>acquiescence</b> (CSRD/ESRS compliance, assurance upgrades, AI-driven materiality) was reached. <b>Compromise</b> deepened as ESG became integrated into tenders and remuneration systems. <b>Manipulation</b> was institutionalized through governance innovations (CEO-chaired Sustainability Committee, Sustainability Operational Model). <b>Defiance</b> appeared in selectively resisting narratives.

Source: own elaboration

In conclusion, the preceding analysis of Alpha’s strategic responses enables the formulation of several observations. Firstly, it is evident that a single strategic response is not applicable in this context, given that this is inversely proportional to the complexity and multiplicity of factors influencing the choice of response.

The second consideration pertains to the inevitable selective avoidance strategy that a company operating in a controversial sector, such as A&D, is likely to implement, given the paradoxical relationship between the concept of sustainability and the defence sector. This is particularly salient in the context of controversial disclosures, such as arms use and social impact in conflict zones.

The third and final consideration is that if institutional pressure is represented by the introduction of new legislation and is therefore mandatory in nature, the immediate response of an organisation will be to maintain its legitimacy through acquiescence, usually through compliance. However, concomitantly, the accumulation of aligned regulatory requirements, in conjunction with the sectoral relevance of an organisation,

gives rise to an evolution in the strategic response, characterised by a diminution of organisational passivity and an augmentation of the propensity to manipulate and influence. Moreover, it is evident that the manifestation of disparate strategic responses can be ascribed not solely to the varying forms of institutional pressure, but also to the degree of organisational maturity with regard to the incorporation of sustainability principles at the strategic, structural and reporting levels. This theoretical framework enables us to emphasise how the achievement of organisational change can be understood as a cumulative process of institutional pressures that go hand in hand with the choice of a strategic response that reflects an organisation's ability to adapt to the pressure received. This ability is based on the organisation's internal capabilities and the level of maturity of its business processes at the time of its reception. Concomitantly, this line of reasoning underscores the significance for policy makers to establish a trajectory of incremental development of regulatory stipulations. The latter should be able to achieve a balance between an innovative drive towards attaining sustainable development objectives and the consideration of actual organisational potential, as well as the presence of contextual conditions that are conducive to the reception of novel institutional requirements in a manner consistent with their actual purposes.

### ***3.5.1.2 Alpha's reorientation towards potential sustainability colonization***

The subsequent section will provide a comprehensive overview of Alpha's trajectory between 2016 and 2024, as outlined in Table 24 below. This period was characterised by a progressive movement across Oliver's (1991) spectrum of strategic responses, while simultaneously deepening the type of organisational change described by Laughlin (1991). To elaborate further, firstly, the analysis of strategic responses has enabled the identification of their nature as dynamic hybrids. Secondly, the comprehensive analysis of the subject has facilitated comprehension of the evolution of Alpha's sustainability strategy, which has been characterised by a gradual shift along Laughlin's (1991) continuum, initially involving reorientation and progressing towards colonization. This progression is characterised by gradual structural adjustments, which, over time, have initiated a transformation in the interpretive frameworks, albeit without completely displacing the organisation's defence-centric identity.

In 2016, Alpha demonstrated a primary inclination towards acquiescence, driven by cause (rising legitimacy pressures from investors and the UN SDGs) and constituents (responsible investors holding 20% of shares). This acquiescence was manifested through initiatives such as the strategic transformation and the establishment of sustainability governance bodies. The repercussions of these strategic resolutions have precipitated a transitional phase, wherein governance and reporting systems undergo adaptation to align with external imperatives. Nevertheless, the fundamental interpretive scheme remains unaltered, a phenomenon congruent with Laughlin's (1991) conceptualisation of reorientation.

By 2020, under the Strategic Plan (projected to 2030), Alpha adopted a compromise approach, reflecting content (balancing multiple sustainability priorities with competitiveness) and context (growing European regulatory momentum through the NFRD and the Green Deal). This Strategic Plan marked an expansion of ESG integration,

linking investments and innovation directly to the SDGs while balancing sustainability with competitiveness. In response, Alpha adopted a compromise strategy, aligning with both the EU Green Deal and the NFRD. This phase saw a reinforcement of reorientation, with systemic adjustments being deepened and sustainability becoming a design archetype in planning and governance. However, the deeper cultural and identity-level values remained intact.

In 2023, the company advanced its strategic approach, adopting a double materiality approach and proactively referencing ESRS standards ahead of legal mandates. This development signifies a progression towards anticipatory acquiescence, compromise and manipulation. In this context, control (anticipatory compliance with coercive regulation such as CSRD/D.Lgs. 125/2024) and constituents (EU institutions, global ESG rating agencies) were decisive antecedents. This transition could be interpreted as the emergence of a preliminary phase of colonisation; whereby external sustainability logics began to influence the interpretive framework and decision-making processes across the value chain. Consequently, sustainability no longer served solely as an external compliance requirement; rather, it became a pivotal lens through which fundamental business activities were interpreted.

By 2024, with the enactment of CSRD/D.Lgs. 125/2024, Alpha demonstrated a combination of acquiescence, as evidenced by the submission of formal Sustainability Operational Model reports to the CEO, the adoption of double materiality, and upgrades to assurance procedures. However, this was accompanied by manipulation, compromise, and selective defiance. These responses were driven by two factors. Firstly, there was an increase in the rigour and specificity of regulatory requirements (content). Secondly, there was a heightened level of public scrutiny of the defence sector (context). The resulting outcome was an insight into the commencement of morphogenetic change: sustainability became structurally embedded in governance, strategy, supply chain, assurance systems, and financial planning. Consequently, this phenomenon could be regarded as a response to external pressures, as well as a gradual reconfiguration of its organisational identity, whereby sustainability is reframed as both a compliance obligation and a strategic enabler of competitiveness. However, the presence of selective resistance suggests that the organisation has not yet fully embraced sustainability as its predominant interpretive scheme. The result is a hybrid position: advanced reorientation structurally, with a potential colonization in the interpretive domain.

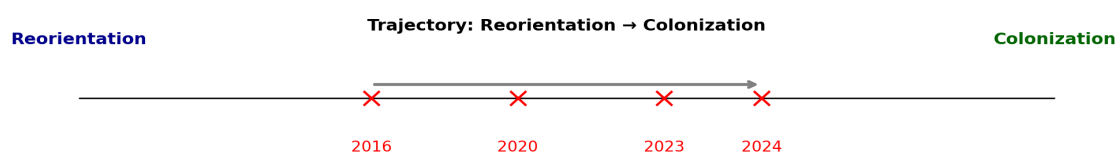
**Table 24.** Linking Alpha S.p.a. strategic responses to its organisational change models

YEARS	STRATEGIC RESPONSES	CHANGE MODELS	DOMINANT ANTECEDENTES
2016	High acquiescence, avoidance and initial compromise	First trace of reorientation	Cause and constituents
2020	Acquiescence, avoidance and high compromise	Consolidated reorientation	Content and context
2023	Anticipatory acquiescence, compromise and manipulation	Potential start of a transition toward colonization	Control and constituents
2024	Acquiescence, compromise, manipulation and defiance	Hybrid change (structural sustainability embedding and partial interpretive schemes resistance)	Content and context

Source: own elaboration

As demonstrated in Figure 7 below, throughout the period under analysis, Alpha’s strategic decisions have been predominantly influenced by a logic of sustainability, principally driven by changes in the environment in which the company operates, which have resulted in a push towards changes that extend beyond a purely formal nature. In recent years, Alpha has made a concerted effort to embed sustainability at the highest governance levels. The company has also linked ESG objectives to top management remuneration and invested in developing new capabilities and competences (e.g. digital transformation, innovation labs, and supply chain development programs) that integrate ESG criteria. Consequently, it sees that the organisation has progressed from a mere adaptation of its reporting and operational practices to a state where sustainability and innovation have become intrinsic components of its identity, strategic planning, and governance. This transition is driven by a robust internal commitment and supported by the evolution of capabilities in response to substantial external pressures.

**Figure 7.** Alpha S.p.a. organisational change



Source: own elaboration

The trajectory of Alpha between 2016 and 2024 serves to illustrate the manner in which Oliver's (1991) framework of strategic responses and Laughlin's (1991) model of organisational change complement each other in explaining the depth and direction of transformation. Oliver elucidates the way in which Alpha navigated external pressures through strategic responses that shifted over time, while Laughlin reveals the extent to which these responses penetrated organisational structures and interpretive schemes. Collectively, these elements demonstrate a progression from compliance to a potential colonization, with sustainability progressively assuming a central role in alpha's identity. However, this shift has not yet materialised into a fully dominant organisational logic. The period from 2016 to 2023 was characterised by purely structural changes. However, in 2023, a shift occurred, marked by an attempt to influence institutional expectations in preparation for the CSRD.

In conclusion, it is evident that the confluence of regulatory pressures, particularly the boldness and innovativeness of the CSRD and ESRS, with the maturity of alpha's organisational structure, has culminated in a hybrid outcome wherein sustainability is embedded in governance, strategy, and operations. However, interpretive frameworks remain partially resistant, indicating that transformation is ongoing rather than complete. In view of the significance of this transformation, which has only recently been initiated, however, some questions remain to be addressed. Firstly, it is necessary to determine whether it is possible to talk about the colonisation of sustainability values in a sector such as A&D, which is characterised by strong core values. Secondly, it is important to ascertain how the new regulatory simplification process (Omnibus package) undertaken at European level, which has currently generated a significant increase in the level of uncertainty, will impact organisational change. The fundamental question pertains to whether this will lead to a regression towards the utilisation of sustainability as a mere instrument for structural evolution.

### ***3.5.2 Interviews***

The aim of this section is to show the results of the analysis of the contextual interviews, which made it possible to express how the introduction of the CSRD is seen by the people involved in its institutionalisation process, both with general and sectoral reflections. Furthermore, it facilitated the conduction of interviews with individuals within the organisation, thereby contributing to the development of interview guides. This was done while keeping a critical perspective and limiting the risk of bias on the part of the interviewer, who also acted as an internal observer. The other purpose of this section is to explain the results of the interview analysis for the case study. This was achieved by employing the Gioia methodology (Gioia et al., 2013), which is distinguished by its use of coding organised in three levels. In this methodological approach, the concepts articulated by the interviewees (first-order concepts) were interpreted and grouped into conceptual themes (second-order themes). These themes were then aggregated into relevant theoretical dimensions (aggregate dimensions). This process formed the foundation for conceptual elaboration and the establishment of connections with the theoretical framework.

### ***3.5.2.1 Contextual interviews analysis: the transformative potential of the CSRD: between regulatory formalism and organisational learning***

The findings from interviews conducted with academics and professionals present a multifaceted and frequently disillusioned perspective on the CSRD. While its value as a European regulatory leadership initiative is recognised, the prevailing perception is one of structural asymmetry between political ambition and actual transformative capacity. This consideration is described in greater detail through the focal points identified in the analysis of the contextual interviews and explored in greater depth below.

#### ***A. From regulatory leadership to institutional fatigue***

The CSRD is perceived as a political and social endeavour to redefine the role of business. As summarised by E04:

*“CSRD is a social institution that demands evolution and maturity... I see a five to ten-year process at the minimum”.*

However, it is also regarded as a process of *“incomplete institutionalisation”*, implying that its implementation is conceptualised as a process of sedimentation rather than an immediate revolution. This perspective aligns with the notion of incremental transformation proposed by Laughlin (1991).

In accordance with the considerations outlined above, E01 and E02 acknowledge the CSRD as a progressive development in the realm of European sustainability regulation. However, they simultaneously underscore its dualistic nature, occupying a position midway between innovation and bureaucratic intricacy. The CSRD is thus interpreted as a process of gradual institutionalisation, subject to tensions, slowdowns and resistance. To elaborate further, E01 characterises the Directive as *“a good, but rapid evolution”* of the preceding framework (NFRD). This response is a strategic imperative for the EU to establish itself as a global leader in sustainability, thereby seeking to reaffirm its global leadership. Nevertheless, he/she emphasises that the true efficacy of the legislation is contingent upon the readiness of companies to adhere to its provisions. It is the contention of E01 that:

*“The CSRD will only be useful for companies that truly believe in sustainability; others will interpret it as a tick-the-box exercise”.*

This consideration suggests a clear tension between the ambitious goals of the CSRD (Second-Order Change/Transformation goal) and the likely organisational response (First-Order Change/Inertia). His/her reading thus highlights a distinction between substantive adoption and symbolic adoption, thereby emphasising the importance of double materiality as a management integration tool:

*“Double materiality is the backbone of the CSRD, because it is not only a reporting directive, but also a management directive”.*

This principle, when interpreted with sufficient seriousness, has the capacity to establish a connection between the economic, financial and socio-environmental dimensions. This,

in turn, has the potential to engender a transformation of organisational culture. While acknowledging the potential of CSRD as a catalyst for change, E02 also highlights its systemic limitations. From this standpoint, the Directive has been regarded as behaving in a manner analogous to “*a bull in a china shop*” thereby engendering a phenomenon that has been described as a “*regulatory tsunami*”. This has consequently led to the destabilisation of prevailing practices and the emergence of pervasive institutional fatigue. He/she observes that:

*“Changes are made from the top down, without taking into account those at the bottom, and this creates disconnections”.*

Such disconnections have been shown to engender a state of disorientation, with the potential to transform the initial reformist intent into a process of resistance or minimal adaptation. In accordance with the aforementioned risks, E05 also expresses significant scepticism with regard to the CSRD's transformative capacity. This is due to the pervasive issue of greenwashing and the regulatory process being influenced by bias and pressure. This standpoint posits that the Directive is incongruent with an organisational culture that is reluctant to engage in substantive reporting, wherein compliance predominates over transformation.

From a business perspective, E03 corroborates the complexity of practical translation, acknowledging that the issue is not solely technical but also cultural, particularly for medium-sized companies that frequently perceive sustainability as an ancillary challenge, unrelated to operational and financial priorities.

The interview with E06 provides a profoundly critical perspective on the institutionalisation process of CSRD and ESRS. The interviewee characterises the CSRD as a “*regulatory wave*” that lacks significant transformative impact:

*“There is no sustainability report that conditions the company's sustainability itself... except maybe for small or medium ones that start reflecting for the first time”.*

From his/her standpoint, the Directive has exerted a paradoxically regressive effect, thereby fuelling cultural resistance and a “*crisis of rejection*”. This phenomenon can be attributed to the fact that ESRS have been constructed by “*reporting people rather than impact experts*”, thereby creating a structural distance between the logic of compliance and that of organisational change. The consequence, as he/she elucidates, is that “*what changes happens on the field, not in the reports*”, thereby highlighting a clear distinction between reporting and real sustainability. This position is directly linked to the avoidance and defiance strategies theorised by Oliver (1991): when faced with institutional pressures perceived as inconsistent or excessive, organisations react by retreating or manipulating regulatory requirements rather than integrating them.

This tension between regulatory ambition and complexity is perceived by all interviewees, albeit from different perspectives: E02 attributes this to the absence of managerial maturity within companies, while E05 explicitly refers to a state of uncertainty (“*sea of doubts*”), indicating the risk that the regulation will become an exercise in compliance rather than a catalyst for transformation. E06 further radicalises this

interpretation, arguing that the wave of regulation has had effects contrary to its original intentions:

*“It has provided fuel for the deniers... it has put sustainability on a compliance plane that has stimulated no one.”*

Consequently, from this standpoint, sustainability, in order to be genuinely transformative, must be functional to business and not a response to regulation. The CSRD is perceived as a bureaucratic device that risks obscuring the true purpose of the sustainable transition – namely, innovation in production, consumption and governance models. In this particular account, sustainability is not merely a matter of reporting; rather, it is conceptualised as a competitive and adaptive process that bears resemblance to a race.

*“In the end, companies are like Formula 1 cars — you win not by going to the Oscars of reporting, but by being better than your competitors”*

This metaphor, with its strong narrative impact, highlights a pragmatic view of change: sustainability is not a matter of reputation, but rather a competitive advantage. Despite the radical nature of E06's point of view, it should be noted that this is in line with the idea shared by the other interviewees, according to which the CSRD can only have a transformative effect to the extent that it succeeds in reconnecting disclosure to performance, promoting a balance between ethics and profit.

The interviews' insights reveal a coherent yet critical picture: the CSRD represents an ambitious attempt to institutionalise sustainability, but its transformative potential is conditioned by cultural, political and professional factors. On the one hand, professionals recognise that the Directive has the potential to promote greater accountability and comparability. On the other hand, they denounce its excessive complexity, its distance from corporate reality and the risk of compliance-driven sustainability. There is a consensus among scholars on one point: the CSRD has redefined the language of sustainability, but has not yet transformed its substance. The effectiveness of this approach is contingent upon the capacity to transition from a compliance-based regulatory framework to a learning-based process. In this paradigm, companies integrate sustainability as a strategic lever rather than an external constraint. This shared perception underscores the conclusion that the transformation envisaged by the CSRD cannot be achieved through disclosure requirements alone; rather, it necessitates a reconnection of reporting, impacts and strategy within the paradigm of progressive institutional learning. The CSRD is regarded not solely as an accounting reform, but also as a political product, arising from considerations of political power on the part of Europe, which is intent on maintaining its supremacy in the field of sustainability in order to win what has been defined as the *“battle of standards”* (E04) between Europe and the U.S.

Moreover, it is universally identified as a significant environmental disturbance, jolt, or kick intended to force organisations out of their natural *“inertia”* and move towards profound transformation. All interviewees (with the exception of E06) recognised CSRD

as a crucial step towards greater corporate transparency and accountability, but highlighted the discrepancy between regulatory ambition and implementation capacity.

### ***B. Double materiality and crisis of meaning***

The principle of double materiality, conceptualised as the foundational tenet of the CSRD, is perceived by respondents as the domain in which the discrepancy between theory and practice is most pronounced.

E01 characterises it as “*the backbone of the Directive*” yet concedes that its implementation “*will depend on the real willingness of companies*”. Consequently, even if double materiality represents the conceptual and operational core of CSRD, it is also one of its most controversial aspects. E04, while acknowledging its centrality, critiques its semantic and theoretical formulation:

*“You cannot talk about double materiality, you cannot put a double to something that is an attribute of things. Materiality is materiality; double focus is ok, double perspective also.”*

This reflection underscores the potential for the terminology introduced by the European Union to engender confusion regarding established accounting concepts, thereby giving rise to interpretative ambiguities concerning relevance, impact and risk. E04 analysis is rendered more incisive by his comments on the necessity of a more substantial quantitative element in the assessment of materiality. He highlights a methodological gap that has the potential to compromise the comparability and credibility of reports. This consideration reveals the perception of a semantic fragility that risks compromising the interpretative clarity of the very concept of materiality. E03, on his side, denounces the double materiality operational complexity:

*“The directive is too complex for mid-size companies... we are still trying to understand what double materiality really means.”*

This challenge is also shared by E05, who, from an institutional perspective, considers double materiality to be a commendable concept in theory but challenging to implement in practice:

*“What I liked most was the double materiality, but right now I don't think it's working.”*

E06 takes this a step further, arguing that double materiality has become a self-referential exercise with no strategic utility:

*“The materiality analysis is functional to what you must write in a report, nothing more... It cannot be elevated to the tool by which the company defines its strategy.”*

Collectively, these positions underscore a crisis of meaning: the very mechanism intended to connect impacts and decisions is perceived as a technical ritual, valuable in form but ultimately serving little purpose in terms of substance. This is the typical paradox of the early stages of institutionalisation, in which the search for legitimacy prevails over the effectiveness of change (Oliver, 1991). Furthermore, E01 notes that EFRAG has not

provided a “*recipe for how to conduct double materiality*”. It is imperative that this principle is adapted to each context, thereby opening up the risk that irresponsible companies will apply it incorrectly. There was a degree of optimism regarding the potential for the establishment of future sectoral standards; however, the Omnibus legislation has the potential to impede this progression. Double materiality is regarded as the most innovative and, concomitantly, most fragile component of the new regulatory architecture. For E01, it is asserted that this approach is the only means of achieving genuine integration within the company. However, its success is contingent upon the progression of the operational guidelines, which are yet incomplete. Furthermore, several interviewees emphasised the prohibitive cost of implementing the Directive correctly, which has a disproportionately negative effect on smaller entities. E03 expressed regret over the following:

*“To be a mid cap is the worst thing that could happen to you, it is like being an adolescent... all laws apply very strictly for us, but we don't have the financial margin to apply them”.*

The complexity of the requirements and the resulting focus on mere output rather than strategic reflection is criticized by E06, which argues that double materiality analysis, intended to be the foundation for strategic change, is currently flawed because “*its output is nothing more than a list of topics*”. In this vein E06 and E03 demonstrate a radical conceptual distinction between materiality for reporting and materiality for strategy, thereby denouncing the formalistic drift of the current European approach. This standpoint asserts that, while double materiality analysis is advantageous in identifying pertinent issues, it is inadequate in providing a framework for guiding strategic decisions. The rationale for this assertion is that the analysis yields a list of topics that is “*too broad and abstract*” (E06) to offer specific guidance on the management of impacts. The interviewees identified a risk that could be considered a complexity paradox. This risk pertains to the potential for excessive methodological complexity and the proliferation of indicators to compromise the comprehensibility and usefulness of reports, thereby undermining their legitimacy:

*“We are generating thousands of numbers that tell us nothing... perfection has become the enemy of usefulness.”*

This standpoint aligns with that of the E04 and E05, which concur on a shared diagnosis: the CSRD risks engendering informational formalism, a practice that is more beneficial for satisfying auditors than for guiding the sustainable transition. In summary, the principle appears to be a potential catalyst for change, but its effectiveness depends on the ability of relevant parties to translate it into management practices and verifiable metrics, as well as on EFRAG's ability, as far as possible, to offer practical support that goes beyond the theoretical description of the principle.

### ***C. Assurance, accountability and institutional opportunism***

In addition to the significance of double materiality, a recurrent theme in the interviews pertains to the quality and credibility of sustainability data. E04 and E06 agree in their

condemnation of the lack of preparation within the assurance sector, and the risk that the verification function will become meaningless.

*“Firms don't have enough people to cope with this... They are assuring data, not sustainability.” (E04)*

From the perspective of E04, the core challenge lies in the role of the assurance profession in the new regulatory ecosystem. Indeed, this profession has a 15-to-20-year lag in terms of sustainability expertise. The ambitious regulatory goal of reasonable assurance is rendered impractical by several factors, including high costs, a lack of skilled personnel, and risk management concerns. This situation leads assurance providers to offer limited assurance on specific data rather than the report as a whole. Nevertheless, this tactical manoeuvre gives rise to an ethical conundrum, namely the impression of comprehensive assurance regarding the entire report. This partial compliance has the effect of diminishing the credibility that the assurance is intended to provide, thus reinforcing the risk that the Directive will become a non-transformative exercise of a purely ceremonial nature. The CSRD and its requirement for reasonable assurance exert significant pressure for conformity, while the Omnibus and the audit profession's unpreparedness limit the ability to comply. In this regard, E04 considers the regulatory ambition of requiring reasonable assurance to be impractical, given that the necessary work is *“far beyond any budget that any company right now can have”*. The paucity of capacity and resources may result in defensive responses, consistent with the avoidance or compromise strategies identified by Oliver (1991), rather than a genuine internalisation of transformative principles. E04 also anticipates a possible change in the assurance business model, in which there will be a gradual shift from comprehensive reports to specific data:

*“The business model will change, no longer assuring the report but assuring data... that will be cheaper for companies and will comply with the same object: trust.”*

This vision not only foreshadows a technical transformation of the concept of accountability, but also an epistemological one, with the concept being increasingly oriented towards granularity and digital traceability. E06 also provides a clear position on the role of auditing firms, accused of institutional opportunism and of having contributed to the development of a system that is designed to serve their own interests. In contrast to the perspective offered in E04, his/her criticism encompasses the recent simplification introduced by the Omnibus proposal<sup>70</sup>, which reduces the level of assurance requirements from reasonable to limited:

*“Reducing assurance is not a good thing... we should move closer to the same level of certification applied to financial statements.”*

E06 posits that authentic transformation will only be achieved when companies adopt assurance as a means of establishing internal and competitive credibility, rather than perceiving it as a formal obligation:

---

<sup>70</sup> The Omnibus topic is analysed in the following part of this paragraph.

*“If a company doesn't want assurance, it means sustainability is not relevant for its business.”*

This standpoint, while potentially unpopular, introduces a pivotal ethical and professional dimension: the credibility of sustainability claims is contingent upon the representativeness and authenticity of the data on which they are based. This finding aligns with the observations made by E04, emphasising the persistent fragmentation within the professional domain.

Both E04 and E06 caution against the opportunism of auditing firms, which they claim have contributed to the establishment of a regulatory system *“for their own use and consumption”* (E06), one that is detached from the genuine requirements of businesses. This perspective underscores the perception of an imbalance in institutional power, wherein technical actors have assumed an excessive role in establishing the rules, thereby impeding economic operators. However, this same reflection gives rise to a point of hope: if oriented towards data accuracy and substantial transparency, assurance has the potential to become a tool for rebuilding trust and rebalancing form and content.

#### ***D. The Omnibus revolution***

E01 attributes the Omnibus package to the current dominance of *“right-wing political parties that are dominating Europe now”*, perceiving it as an excuse for inaction and a manifestation of political pressure that will generate uncertainty. According to this perspective, E02 interprets the Omnibus as a manifestation of political pressure and uncertainty, while concurrently signifying a potential acknowledgement of the necessity for a gradual approach, in recognition of the phenomenon of regulatory fatigue stress.

In this regard, the Omnibus proposal is understood by E01 and E02 as a potential indication of a diminution of the CSRD's original ambition, with the capacity to impede or divert organisational learning processes. Such regulatory uncertainty has been shown to encourage the implementation of defensive strategies, as was previously observed by Oliver (1991). Consequently, a pivotal emergent theme pertains to the repercussions of regulatory uncertainty, which has been exacerbated by the Omnibus proposal and its suggestion to defer the implementation of CSRD. This uncertainty is perceived not merely as a delay, but as a calculated opportunity for inaction, and consequently a barrier to deep-seated organisational change. This position is reiterated by E05, who argued that uncertainty is the most effective weapon against the Directive:

*“Uncertainty is the best weapon they could have launched. To justify doing nothing”.*

This consideration is exemplified by E03, who affirmed:

*“We are in a very strange situation, we have to apply the NFRD for 2024, but we do not have to apply the CSRD according to Omnibus until 2028, so it's a little bit crazy”.*

This lack of stability has a detrimental effect on organisational planning, providing a justification for the avoidance of costly, long-term activities such as the Double Materiality (DM) analysis:

*“I have to decide if I should spend money on double materiality or just follow the requirements of NFRD and try to do something just to pass” (E03).*

Furthermore, E05 perceives the Omnibus as a geopolitical compromise:

*“The United States is putting pressure on us... I think Europe has said that something is better than nothing.”*

This perspective is corroborated by E06, who regarded the Omnibus delay as a fortuitous occurrence for companies grappling with the intricacies and financial demands of the ESRS requirements. In conclusion, from this perspective, the CSRD becomes a field of negotiation between economic and political powers, in which transformative effectiveness is conditioned by pressures for simplification and market logic. The risk is that, instead of consolidating a new architecture of responsibility, the Directive will engender a state of uncertainty that will reduce the legitimacy and substantial adherence of companies.

### ***E. Connecting contextual interviews with the theoretical framework: predicted organisational responses and changes***

The contextual interviews converge in identifying CSRD as a form of environmental disturbance (Laughlin, 1991), designed to break organisational inertia and promote the integration of sustainability into decision-making systems. The stated aim is to generate second-order change (Morphogenesis), affecting corporate culture and interpretative patterns. However, as synthesized in figure 8 below, the responses expected from organisations and the timelines indicated by interviewees are out of step with this transformative ambition.

#### **Predicted short-term strategic responses (Oliver, 1991)**

##### **1. Avoidance – Buffering, Concealment, Ceremonial Pretence**

E01, E04 and E05: The tendency of companies to “*wait for the Omnibus so as not to act*” can be interpreted as a possible avoidance strategy, through buffering or concealment, with the aim of postponing the implementation of the legislation while preserving margins of internal discretion. Furthermore, the pervasive notion that the CSRD could culminate in a perfunctory exercise, akin to ‘tick-the-box’ compliance, signifies a manifestation of a risk of ceremonial pretence. This pretence manifests as symbolic compliance, directed towards external legitimisation, rather than substantive organisational processes.

##### **2. Compromise – Bargaining**

E04: Some auditors adopted a compromise approach, negotiating the scope of application of the regulations through the use of limited assurance on data. This results in a reduction of both professional risk and the operational burden on the client. This strategy is indicative of a Bargaining behaviour, motivated by cost constraints and the complexity of reporting.

### **3. Defiance and Manipulation – Challenge, Dismissal, Influence**

E06: The interviewee criticises the entire institutionalisation process, arguing that the regulatory “kick”, represented by the CSRD, has not achieved the expected transformative effect due to the design of the legislation and the unfavourable political context linked to the Omnibus. The interviewee further argues that the introduction of ESRS has “*fuelled the denialist front*”, highlighting a probable response of defiance, through challenge or dismissal of institutional imposition. Moreover, the intricate reporting output has been the subject of critique on account of its complexity, which facilitates the practice of avoidance and concealment. This is achieved by organisations hiding superficial changes behind complex and hard-to-read compliance procedures. Furthermore, he hypothesises that auditing firms have exerted a self-interested influence on the design of the standards, attributable to manipulation (influence), with a view to orienting the rules according to market dynamics.

#### **Predicted medium-to-Long Term change pathways (Laughlin, 1991)**

##### **1. First-Order Change (Morphostasis)**

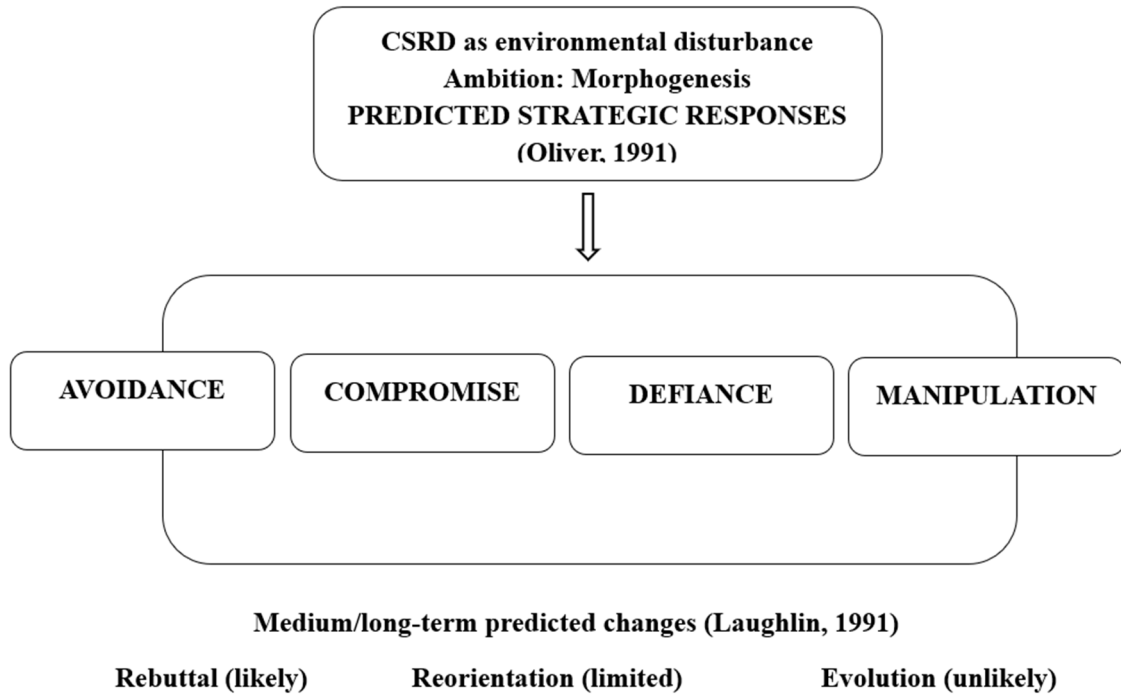
Most interviewees predict that the adaptation process will be gradual.

E01 anticipated that change will be brought about by very slow sedimentation over a period of 10 years or more, in accordance with rebuttal or reorientation. In this paradigm, only systems and processes (design archetype) undergo modification, with no alteration to fundamental interpretive frameworks. According E04, despite the recognition of the Directive's transformative potential, the probable outcome is likely to be a perfunctory exercise in compliance, consistent with rebuttal, which serves to deflect external pressure to maintain strategic priorities. E06 recognized that for well-established firms, sustainability reporting is regarded as collateral, serving to reinforce rebuttal. That is to say, a response in which the external disturbance (CSRD) is externalised or deflected to protect the internal core. This results in superficial compliance that fails to achieve the Directive's transformative ambition. It is hypothesised that smaller companies may experience a process of reorientation, during which they adjust their systems for the first time without altering their strategic beliefs.

##### **2. Second-Order Change (Morphogenesis) – Intended but unlikely**

E02 and E04 both underscore the CSRD's objective of redefining the role of business in society, highlighting associated goals that are indicative of evolutionary or transformative processes. Nevertheless, the discrepancy between regulatory timing and organisational capacity renders such pathways improbable.

**Figure 8.** Predicted organisational responses and changes



Source: own elaboration

***F. The transformative potential of CSRD between institutional ambition and A&D sectoral resistance***

It is noteworthy that both academics and professionals acknowledge the CSRD's latent transformative potential, particularly due to its introduction of double materiality and its ambition to connect sustainability with corporate strategy. However, across all contextual interviews, this potential appears to be conditional and heavily dependent on organisational motivation and contextual dynamics. As stated by Interviewee E01, the Directive has “*all the necessary tools to integrate sustainability*” into strategic thinking, but only for organisations already culturally oriented towards sustainability. In the absence of due consideration, there is a risk that the matter may become a compliance-driven obligation with unintended consequences, particularly for SMEs within large corporate supply chains. Such consequences may result in the exclusion of SMEs due to their inability to meet the new data requirements imposed on large companies. This, in turn, could result in the exclusion of SMEs from the supply chain. A comparable tension is evident in E02, who perceives accounting as a potential “*transformative agent*”, yet it is presently enforced as a top-down institutional disruption, resulting in organisational disorientation. E04 and E06 expand this critique, describing the CSRD as a symptom of hyper-regulation, with the risk of distancing sustainability from operational reality rather than embedding it.

From the perspective of an Aerospace & Defence mid-cap, E03 exemplifies the organisational struggle in aligning sustainability and economic constraints. Despite the company's consolidated history of social and environmental initiatives, the formalisation

of sustainability reporting necessitates a substantial investment in the development of KPI-based measurement systems. The Omnibus proposal further postpones the costly double materiality analysis, leading the company to delay compliance despite recognising its long-term relevance. As the interviewee states, the firm will proceed with sustainability “*not because it is mandatory, but because we are convinced it is necessary*”, while explicitly recognising that “*without profit there is no ESG.*”

The A&D sector is identified as a problematic organisational field for CSRD integration, demonstrating the conditions under which the Directive appears to function more as an institutional disturbance (Laughlin, 1991) than as a new consolidated archetype, stimulating adaptation and negotiation processes rather than immediate structural changes. This suggests that institutional pressure in this sector is likely to result in defiance and manipulation. Described by E01 as a “*black sector*”, characterised by restricted information access and entrenched cultural closure, it is portrayed by E03 as an environment where “*transparency has a limit.*” The ethical tension inherent in the attempt to apply principles of accountability and transparency to a sector driven by national security and geopolitical power, is highlighted by E05:

*“By definition, the sector is not sustainable... Why should we justify sustainability in an industry that manufactures weapons?”*

Interviewee E06 offers a more pragmatic perspective:

*“If defence is necessary, weapons must be made—provided that we make them in the least impacting way possible.”*

This judgement introduces a business-oriented and pragmatic point of view, positing that the issue lies not in the existence of the sector per se, but rather in its capacity to mitigate its social and environmental impacts. The reference to the Alpha case study corroborates the emphasis on operational impacts and emissions management:

*“They <Alpha Spa> intervened in a production phase and managed to reduce emissions dramatically, approaching their SBTi targets for 2030.”*

This observation underscores the notion that authentic organisational transformation does not emerge from regulatory obligations, but rather from technical projects and concrete managerial decisions, a notion that is further reinforced by the vision articulated by E03.

Conversely, E02 asserts that the repercussions of CSRD within the A&D sector are anticipated to be considerably constrained by inherent discord and extraneous limitations, namely those stemming from U.S. competition and the preeminent political priority assigned to military expenditure. Furthermore, he/she observes that companies may redefine what constitutes ‘defence spending’ by incorporating investments in infrastructure or climate resilience, thereby attempting a strategic reinterpretation of sustainability. This confirmation suggests probable manipulation strategies. Moreover, E02 posits that the implementation of the double materiality principle within the A&D sector may encounter substantial impediments. This is due to the sector's status as a highly

sensitive and strategic domain, wherein the disclosure of information has the potential to impede national security and competitiveness:

*“Companies could justify not disclosing certain information because it is part of their business model.”*

In this sense, double materiality risks remaining a theoretical principle, selectively adapted or ‘flexibilised’ according to the nature of the sector, characterised by strict interpretative schemes. In terms of future projections, E02 and E05 concur that organisational agency within the A&D sector is significantly constrained by external forces. The sector is distinguished by an inherent resilience in its business model, a consequence of its reliance on continuous state funding, which serves to shield it from the imperative for substantial transformation. This finding aligns with Oliver's (1991) theoretical framework, which posits that when there is a low degree of congruence between the institutional norms that govern an organisation and its stated objectives, the organisation is likely to adopt a resistant stance. This concept is emphasised by E05, who underscore the potential organisational endeavours to strategically reinterpret the institutional criteria, thereby shaping the definition of materiality in a manner that favours financial disclosures while obscuring controversial social impacts. This approach diverges from the full spirit of double materiality, as it does not align with the original intent and principles of the concept.

The majority of interviewees concur that the CSRD is improbable to prompt immediate profound structural transformation in this sector. As E02 argues, the organisations' inclination to “manipulate or reject” compliance corresponds with Laughlin's (1991) rebuttal pathway, where the institutional kick is deflected to protect the core interpretive schemes, namely, the centrality of national security and geopolitical competitiveness. In exceptional and externally driven circumstances, such as geopolitical or economic crises, there is a possibility of the sector undergoing colonisation, defined as a forced second-order change. A more pragmatic approach to adaptation involves incremental reorientation, characterised by the evolution of systems and processes (e.g., the implementation of sustainability roles and KPI frameworks) without altering fundamental strategic assumptions. Consequently, while the Directive aspires to morphogenesis, the sector is regarded as being structurally predisposed towards morphostasis. This could be manifested through superficial compliance strategies such as ceremonial pretence, concealment or economic reframing, rather than strategic integration.

In summary, the contextual interviews provide an interpretative framework that enables the anticipation of the variety of response strategies that may emerge from subsequent company interviews, ranging from resistance and manipulation to forms of compromise or strategic acquiescence. This offers a useful foundation for assessing the real scope of the transformative potential of CSRD in the Aerospace & Defence sector. Moreover, the interviews indicate that, whilst the CSRD operates as a significant institutional disturbance, its transformative capacity is contingent upon the congruence between regulatory intent and organisational motivations. The Aerospace and Defence sector is emblematic of resistance due to its strong interpretive schemes, political dependency and strategic purpose. It is positioned as a theoretical boundary case in which institutional pressure is more likely to generate defiance and manipulation than strategic acceptance.

Consequently, the opportunity for transformative change may not emerge from regulatory obligation alone, but from future processes of institutional learning and from the integration of sustainability into competitive advantage logic. This would involve shifting sustainability from regulatory rhetoric to strategic performance orientation and moving from sustainability perceived as ‘regulatory hypocrisy’ to strategic and competitive sustainability, capable of reducing material impacts and increasing the social legitimacy of a historically contested sector.

### ***G. From compliance to transformation***

The analysis of the interviews indicates that CSRD possesses latent transformative potential; however, its effectiveness is contingent upon the capacity of both public and private actors to transition from a focus on compliance to one that is more oriented towards substance. As E06 stated:

*“Sustainability is not about roles on the board or governance checklists; it's about impacts.”*

Consequently, authentic transformation will not be achieved through mere compliance with established standards, but rather through their strategic reinterpretation. In the Aerospace & Defence sector, this necessitates a delicate balance between ethical responsibility, industrial competitiveness and regulatory rationality, in accordance with Oliver's (1991) perspective on the coexistence of institutional pressures and organisational agency. It is evident that the CSRD does not yet constitute a revolutionary measure, but rather a regulatory intrusion that compels companies to redefine, albeit in a gradual and often defensive manner, their understanding of sustainability.

The interviews conducted for this study indicate that CSRD is contributing to an ongoing, albeit incomplete, institutional learning process. Businesses and professionals are grappling with a new language of responsibility, which is still perceived as external, but which could gradually be internalised into management mechanisms.

Notwithstanding the critical issues, E01 and E02 recognise that CSRD has the capacity to engender internal benefits for organisations. According to E01:

*“a good double materiality process leads the company to reflect on its strategy, improving relations with stakeholders”.*

Conversely, E02, while maintaining a degree of scepticism, acknowledges the potential of the directive to promote efficiency and competitiveness, particularly in the context of integrating sustainability into the paradigm of technological innovation and efficient resource utilisation, particularly within the A&D sector. However, it is reiterated that in the short term, the priority for these companies could be *“to produce more, not necessarily in a more sustainable way”*, due to geopolitical pressures and increased defence budgets. Furthermore, he/she asserts that alterations are implemented from a superior position, without consideration for those in subordinate roles, thereby engendering a sense of alienation. It is within these disconnections that space for change resides: the hybridisation between regulatory logic and managerial practices can indeed become a field of transformation.

Academic and professional voices delineate the contextual factors within which A&D companies formulate their strategic responses to CSRD. Overall, the prevailing perspective is a nuanced one, expressing disenchantment yet also a constructive outlook. It characterises the CSRD as an ambitious directive that possesses the potential to steer the discourse on corporate responsibility, albeit one that faces impediments from cultural resistance, limited operational capacity and political tensions.

In conclusion, as E04 hypothesises, the sustainability accounting community is currently undergoing a period of adjustment in response to the CSRD, that:

*“Is the same phenomenon as double entry... it took a century to flourish.”*

Sustainability regulated by CSRD is therefore an ongoing process, in which transformation does not lie in the norm, but in the way organisations interpret it, challenge it and, ultimately, make it their own. As is evidenced by the development of modern accounting, the establishment of sustainability as a social institution requires time, experimentation and adaptation.

### ***3.5.2.2 Case study interviews***

#### ***3.5.2.2.1 Coding case study interviews***

The analysis of the interviews conducted with the four corporate units was carried out according to the Gioia methodology (Gioia et al., 2013), in order to ensure inductive rigour and transparency in the abstraction process. The proposed approach is founded on the inductive rigor of the Gioia methodology, developed through an abductive logic, in alignment with the possibility recognised by Gioia et al. (2013) of using it as “a methodology, rather than a method” (p. 26). This approach is characterised by its flexibility and openness to innovation, rather than being a mere template. In this sense, abduction facilitated the process of matching the emergent empirical results with theoretical conceptions (Dubois and Gadde, 2002; Gehman, et al., 2018). In essence, the data enabled a more precise delineation of the tactics and mechanisms through which Oliver's strategic responses and Laughlin's evolutionary trajectory manifested in the particular context of sustainability regulation pressure. This process furnished the requisite operational specifics to the prevailing theoretical frameworks. In practice, in the initial phase (“first-order coding”), concepts were identified through the utilisation of the interviewees' own language, without the imposition of pre-existing theoretical categories. The codes, which were derived directly from the transcripts, were then grouped into “second-order themes”, as illustrated in Table 25 below.

**Table 25.** Emerging second-order themes

Relevant quotes (first order concepts)	Second order themes
<p><b>P01:</b> “The group decided to develop an integrated financial statement in 2020, <b>somewhat anticipating the regulatory requirements</b> that made it mandatory for everyone to integrate information in 2024. We had already started a little ahead of time. We were quite ahead of the curve in this regard. Alpha already had a fairly high level of maturity, there was already sensitivity, there was already attention to these issues.”</p>	<p><b>Regulatory anticipation</b></p>
<p><b>P02:</b> “Some people, especially those with little experience in certain areas, may see all these &lt;increased disclosure requirements&gt; as an additional burden on top of what should be done. Initially, <b>managing this change was somewhat complicated</b>, but the intention was to make this type of activity easier and more efficient, so that it would not be seen as anything other than necessary.”</p>	<p><b>Perceived compliance burden and adaptive change</b></p>
<p><b>P02:</b> “The introduction of sustainability has not disrupted our risk management process. On the contrary, in light of the requirements set out in the CSRD, we have realised that ERM could be the process that consistently and effectively supports the requirements of financial materiality.”</p> <p><b>P01:</b> “The push to implement this integration is definitely a further step forward. Gaming regulations force you to do certain things, and sometimes, <b>in these large organisations, obligation is the strongest driving force</b>...Some people, particularly those with limited experience in certain areas, may view this as an additional task.”</p> <p><b>P03:</b> “The process also led to significant <b>changes in terms of mindset</b>. Linking certain issues to figures, to impacts on cash flow, revenues and orders, was a big step forward for us at Primis... but also for all our colleagues in the various business areas...Beyond the materiality aspect, the evident impact &lt;of the CSRD&gt; was in the drafting of the financial statements, and this is what also informs the culture.</p> <p><b>P04:</b> “It prompted us to collect data in a more structured manner, to set up processes and digital structures, and therefore formalisation, disclosure, processes and <b>culture in terms of people's awareness of the issue</b>.”</p>	<p><b>Regulatory-driven cultural shift</b></p>
<p><b>P03:</b> “While previously &lt;materiality&gt; seemed like a somewhat distant process in business, the introduction of the financial &lt;materiality&gt; has certainly made it much more credible, much more solid, and much more understandable to people such as operations managers, people in business, operations, engineering, sales, etc. It has made it much easier to understand what it means... how certain sustainability issues impact the achievement of industrial targets.”</p> <p><b>P05:</b> “We have also identified KPIs that add value, as the taxonomy does not cover us fully. We have therefore sought out KPIs aligned with our strategic sustainability objectives, for which we have developed a medium- to long-term strategy. These KPIs can also be commensurate with the sources of funding.”</p>	<p><b>Legitimacy through performance</b></p>

<p><b>P01:</b> “Alpha has always paid close attention to these issues, so sustainability has always been considered and integrated into the group's business plan and strategies. Financial materiality has been a major driver (on the strategic side).”</p> <p><b>P03:</b> “As far as we are concerned, it has mainly influenced the evolution of materiality, in the sense that there has been much more attention paid to the financial aspect.”</p> <p><b>P05:</b> “We have also tried to provide consistency in the form of a sustainability plan with clear medium- to long-term targets and a medium-term management incentive plan...We have therefore given ourselves a consistent approach to the commitment we have made.”</p> <p><b>P06:</b> “The sustainability plan is aligned with the business plan, and thus with the equity story promoted by investor relations. The evolution from traditional defence to global security, for example, is therefore also central to the sustainability strategy. Global security encompasses protecting critical infrastructure, ensuring access to energy and food, and environmental transition is part of a broader concept of global security. Consequently, the sustainability strategy and plan address these issues and are fully integrated into the group's strategic plan.”</p>	<p><b>Strategic legitimisation and value alignment</b></p>
<p><b>P02:</b> “We have our process &lt;ERM&gt;, but we need to link it to the elements that the CSRD tells us need to be addressed. &lt;We thought that&gt; ERM could be the process that would consistently and effectively support what is required in terms of financial materiality.”</p>	<p><b>Integration of risk and sustainability systems</b></p>
<p><b>P01:</b> “Important work has been done by Alpha’s various reference functions, including sustainability and risk management, but also the CSS unit, which has had to work closely with them.”</p> <p><b>P02:</b> “Important work has been done by various departments at Alpha, including sustainability and risk management, but also the CSS unit, which had to work closely with them. The implementation of the sustainability risk management process was orchestrated with the sustainability unit.”</p> <p><b>P05:</b> “Investor Relations is the main point of contact between the company and the outside world. According to the engagement policy available on the website, any request from outside the company, not strictly from investors, should be sent to us. We then act as a spokesperson internally for any request, including ESG requests. We work closely with the sustainability team.”</p>	<p><b>Cross-functional coordination</b></p>
<p><b>P02:</b> “A lot has been achieved thanks to the tools that have been implemented to facilitate data collection. Even at the beginning, managing this change was somewhat complex, but the idea is to make this type of activity easier and more efficient, so that it is not perceived as anything more than necessary...Over time, in order to support the identification and management of business risks, we have had to equip ourselves with ad hoc/vertical specialist tools that could support the process owner in identifying and assessing risks and opportunities.”</p>	<p><b>Technology as a methodological and procedural enabler</b></p>

<p><b>P01:</b> “We have three credit lines linked to ESG parameters. This means that interest rates are subject to a reward or penalty mechanism depending on whether targets are reached.”</p> <p><b>P02:</b> “Similarly, with regard to sustainability, by consulting with various key managers, we developed a tool that could support the identification of ESG risks.”</p> <p><b>P03:</b> “This year (2025) has already seen a major step forward, but we expect the development and consolidation of a slightly more structured calculation methodology. We have already developed a tool with our risk colleagues that is essentially a situational matrix, which provides examples to colleagues for estimating the possible financial impact of individual issues.”</p>	<p><b>Technology as a lever for strategic integration and ESG-financial assessment</b></p>
<p><b>P02:</b> “We also seek to summarise what we might call the main issues that our stakeholders observe as readers and with regard to topics of double materiality, and this in particular is a step that Sustainability takes care of. We move on to 10/15 materiality issues, which are then mapped within the financial statements.”</p> <p><b>P01:</b> “We also have specific elements, referred to as <b>entity specific</b> in the regulations we disclose. A very characteristic theme is that of technological innovation, without which we could not live...There have been changes since we had to include new flows. We also had to expand this group of key stakeholders in order to respond to all these new obligations.”</p>	<p><b>Strategic adaptation of disclosure</b></p>
<p><b>P01:</b> “We had to create a procedure together with our central DPO (Data Protection Officer) office because they were unable to send certain documents to the auditors. We occasionally encountered some difficulties with data protection, some issues regarding how to share sensitive data, but it is no longer a matter of defence.”</p> <p><b>P05:</b> “We are not involved in any of the four categories of controversial weapons, nor do we wish to be, but this is often unclear, so reassurance is required &lt;by the investors&gt;...“It is &lt;Defence readiness Omnibus&gt; certainly a sign of openness on the part of the regulator. Firstly, it helps us avoid exclusion from the sector. Secondly, the European Community is asking for case-by-case assessments to be carried out, as set out in the notice it has issued. We are seeing this happen, so perhaps investors who were previously less interested in this issue because they excluded it altogether now have a greater interest. I do not know if this change depends on the regulatory context, but we see this as a sign of openness that certainly favours defence companies as a condition for security. Without defence, we cannot even talk about sustainability. I cannot say whether this regulation has been the catalyst.”</p>	<p><b>Selective disclosure management</b></p>
<p><b>P01:</b> “The defence sector is, by definition, certainly a sensitive sector. This is a point of discussion because, in fact, sometimes the CSRD asks you to go into certain details, so it is a point of discussion at European level in the defence sector.”</p> <p><b>P05:</b> “It is part of our business plan to shift from being a company that focuses purely on defence to being a global security company. This involves a completely different approach and a paradigm shift, where</p>	<p><b>Selective disclosure management/Sectoral narrative re-elaboration</b></p>

<p>security once again forms the basis for meeting all other needs of European citizens...This new pillar of the defence-as-global-security concept means that we are shifting towards perceiving ourselves as more of a technology company than a traditional defence company. This is the result of a completely new strategy introduced by the new management.”</p>	
<p><b>P01:</b> “This sector is finally being given the positive connotation that we have always attributed to it, whereas in the past it was viewed negatively by investors and, more generally, by the population. From our point of view, it is positive to see this sector in its positive sense of security and defence, and not only in its negative military sense.”</p> <p><b>P05:</b> “We saw a great deal of interest. This was through direct contacts on specific topics (i.e. decarbonisation, sustainability ratings, human rights, export monitoring and tracking of sensitive countries). The reason for this is probably that the defence sector was outperforming all other indices and markets.”</p>	<p><b>Sectoral narrative redefinition</b></p>
<p><b>P03:</b> “Closely linked to the sustainability strategy is the materiality analysis to identify the group's priorities, both in terms of strategy and disclosure. The first exercise was somewhat distant from the specific requirements of the regulations, but then, with the inclusion of our risk colleagues, we moved closer to what was required. I would say that the impact was not influenced by financial priorities, only by the methodology.”</p>	<p><b>Materiality as strategic driver</b></p>
<p><b>P02:</b> “The method used is effective because it allows for the verification of multiple effects of different kinds based on the type of Alpha objective that may be impacted. The characteristic of Alpha’s ERM risk appetite framework is that we accept different possible risk appetites... all risks and impacts of a compliance nature are associated with a risk-averse attitude... with reference to the cautious risk appetite attitude, Alpha, for example, associates the nature of operational impacts... with the flexible risk appetite type, the nature of strategic impacts, where we have a medium to long-term strategic objective, given that we are a company that must generate profit.”</p>	<p><b>Strategic Risk Governance Methodology</b></p>
<p><b>P02:</b> “There was, therefore, a lively exchange of views and osmosis between what is done in the field of financial materiality and what is implemented in the field of impact materiality.”</p> <p><b>P03:</b> “Some methodological elements of financial materiality have also been adopted for impact materiality, to make it more consistent and structured. Many concepts have also been incorporated into impact materiality, such as the probability of impact and how probability is calculated.”</p>	<p><b>Double materiality methodological harmonization</b></p>

<p><b>P01:</b> “Another difficulty arose from reporting the release of pollutants into water, soil and air in relation to European Regulation 166. We had to systematise hundreds of new metrics for hundreds of sites to arrive at a zero value.”</p> <p><b>P02:</b> “I don't want everything I've told you to be perceived as all sunshine and roses. The work involved in enabling this kind of disclosure is extremely burdensome, and the company has clearly struggled.”</p>	<p><b>Burden and disproportionate effort of Reporting</b></p>
<p><b>P02:</b> “There is also the issue of objective difficulty, where we have an extended supply chain that is not made up of a Tier one, but of a Tier n. Alpha intervention as mitigation for small and medium-sized enterprises... which are involved in information plans, but above all in training and support in some cases, including financial support... While Alpha may be able to manage this regulatory pressure, it can become burdensome for an SME to equip itself with tools to support sustainable reporting, especially when these regulations require a level of management that was not previously necessary... Then there is also the issue of CSDDD, which is also quite a challenge, where the issue of the extended supply chain becomes even more complex.”</p> <p><b>P03:</b> “One aspect that proved difficult to analyse was the assessment of time horizons and the extent of the impact along the value chain... We concluded that we should first identify the main affected time horizon and part of the value chain, and then submit these to the stakeholder for evaluation.”</p>	<p><b>Difficulties in managing extended value chain governance (SMEs)</b></p>
<p><b>P01:</b> “We have decided to subject certain sustainability indicators to reasonable assurance, and we have created an internal model with the involvement of internal audit.” “The internal control model is something that no one was doing &lt;at sector level&gt;. &lt;CSRD has helped&gt; to ensure that everyone publishes data according to certain standards, so that there is consistency in data processing.”</p>	<p><b>Strengthening assurance and data</b></p>
<p><b>P02:</b> “There were certainly some areas in which we were not as mature as we could have been, and still are not. I am referring, for example, to the issue of biodiversity, which has various aspects... Adopting a broader view of biodiversity has certainly raised awareness of the issue, which is much broader and requires a broader perspective, analysis and attention. It has also been given greater importance.”</p>	<p><b>Evolution of the thematic scope</b></p>

**P01:** “After studying the standards (draft simplified ESRS), we believe that this simplification hides some pitfalls that must be addressed properly... They have created guidelines that, in our view, have caused more confusion than before... Let's take a simpler, clearer position: this is what we must do... There are elements that have not been handled in the best way, that are not entirely clear, and in some cases, additional obligations have emerged, and we have asked to go back... In my opinion, it is good to address the concept of fair representation and can also be positive if it is somewhat limited and requested in a clear manner because, otherwise if it becomes something that has almost no boundaries, it is not manageable; it would not be physiologically possible... Perhaps the level of concern among many companies is even higher, in the sense that the debate on these issues has been quite heated because many have wanted to emphasise the critical issues, stating that this is a false simplification, as it will create, from their point of view, additional reporting obligations.”

**P03:** “Obstacles <to the implementation of CSRD>, certainly the lack of clarity of the standards in terms of methodology with regard to everything, with regard to impact, with regard to finance, with regard to integration, in short, deliberately vague in some aspects and therefore difficult to establish a credible methodology... In reality, it (simplification) was initially perceived as a risk in the sense that excessive simplification could also weaken the process internally. We try to curb excessive demands for simplification at working tables because, since the process is in place, we believe it is very useful for certain information to be published in the financial statements.”

**Critical issues with  
ESRS and ambiguity of  
regulatory revisions  
(Omnibus, simplified  
ESRS)**

Source: own elaboration

The final step in the analysis entailed the synthesis of the themes into “aggregate dimensions” that would facilitate comprehension of Alpha S.p.a.'s strategic response to regulatory developments in the domain of sustainability. This aggregation is outlined in Table 26 below.

**Table 26.** Emerging aggregate dimensions

<b>Second order themes</b>	<b>Aggregate dimensions</b>
<ul style="list-style-type: none"> <li>• Regulatory anticipation</li> <li>• Perceived compliance burden and adaptive change</li> <li>• Regulatory-driven cultural shift</li> </ul>	Normative push and cultural shift
<ul style="list-style-type: none"> <li>• Legitimacy through performance</li> <li>• Strategic legitimisation and value alignment</li> </ul>	Business-case legitimisation
<ul style="list-style-type: none"> <li>• Integration of risk and sustainability systems</li> <li>• Cross-functional coordination</li> </ul>	Structural & process integration
<ul style="list-style-type: none"> <li>• Technology as a methodological and procedural enabler</li> <li>• Technology as a lever for strategic integration and ESG-financial assessment</li> </ul>	Innovation beyond compliance
<ul style="list-style-type: none"> <li>• Strategic adaptation of disclosure</li> </ul>	Strategic impact orientation
<ul style="list-style-type: none"> <li>• Selective disclosure management</li> </ul>	Transparency tension
<ul style="list-style-type: none"> <li>• Selective disclosure management/Sectoral narrative re-elaboration</li> <li>• Sectoral narrative redefinition</li> </ul>	Legitimacy & Strategic Narrative Influence
<ul style="list-style-type: none"> <li>• Strategic Risk Governance Methodology</li> <li>• Double materiality methodological harmonization</li> </ul>	Methodological alignment for transformation
<ul style="list-style-type: none"> <li>• Materiality as strategic driver</li> </ul>	Embedding sustainability logic

<ul style="list-style-type: none"> <li>• Burden and disproportionate effort of Reporting</li> </ul>	Compliance pressure & operational burden
<ul style="list-style-type: none"> <li>• Difficulties in managing extended value chain governance (SMEs)</li> </ul>	Embedding sustainability in supply chain
<ul style="list-style-type: none"> <li>• Strengthening assurance &amp; data</li> </ul>	Assurance & data governance improvement
<ul style="list-style-type: none"> <li>• Evolution of the thematic scope</li> </ul>	Materiality evolution & expansion
<ul style="list-style-type: none"> <li>• Critical issues with ESRS and ambiguity of regulatory revisions (Omnibus, simplified ESRS)</li> </ul>	Regulatory pressure & uncertainty management

Source: own elaboration

The following paragraphs will compare these dimensions with the types of strategic responses proposed by Oliver (1991) (acquiescence, compromise, avoidance, defiance, manipulation) and the models of organisational change theorised by Laughlin, in order to interpret the nature of institutional responses and their possible evolutions. Concurrently, each dimension was correlated with the labels employed for the content analysis of the integrated reports. This was done to achieve triangulation between interviews and archival evidence.

### ***3.5.2.3 Connecting case study interviews with the theoretical framework***

The qualitative analysis conducted using Gioia's methodological framework has therefore revealed a series of aggregate dimensions that reflect different strategic responses by Alpha S.p.a. to institutional pressures arising from European regulatory developments on sustainability reporting. These dimensions do not only represent operational adaptations, but also outline evolutionary trajectories ranging from regulatory compliance (compliance-driven) to more proactive forms of strategic integration (strategy-driven). These evolutionary trajectories are consistent with the dynamics described by Oliver (1991) and Laughlin (1991).

Specifically, the aggregate dimension “*Normative push & cultural shift*” underscores an initial response of acquiescence, wherein regulatory pressure serves as a catalyst for transformation in organisational culture. Furthermore, a form of pragmatic acquiescence is evidenced by the dimension entitled “*Assurance & data governance improvement*”. This demonstrates the pragmatic use of existing control systems to absorb new rigorous reporting requirements without structural disruption.

In turn, “*Compliance pressure & operational burden*”, “*Structural & process integration*”, “*Methodological alignment for transformation*”, “*Embedding sustainability in supply chain*” alludes to elements of compromise, where adaptation occurs not without internal tensions, thereby revealing a delicate balance between compliance and organisational resistance. The dimension “*Transparency tension*”, associated with the selective management of disclosure, should be interpreted as a strategy of Avoidance. Dimensions such as “*Business-case legitimisation*”, “*Strategic impact orientation*”, “*Legitimacy & Strategic Narrative Influence*”, “*Regulatory pressure & uncertainty management*” and “*Materiality evolution & expansion*” are indicative of a shift towards approaches that are more oriented towards manipulation of institutional logic, in which sustainability is reinterpreted as a lever for competitiveness, value creation and controlled disclosure management strategies. In this regard, it is important to distinguish two analytically different forms of manipulation that emerge from the case study interviews. The first form pertains to the external institutional influence exerted by the organisation in its endeavour to shape the meanings and expectations of the institutional environment. Evidence for this can be found in two key factors. Firstly, a redefinition of the sectoral narrative has occurred, with the defence industry being repositioned in terms of security and technological resilience rather than its traditional military connotations. This is evidenced by the company's decision to adopt a narrative of global security as part of its business plan. Secondly, the company has been actively involved in regulatory debates concerning the ambiguities and unintended consequences of the ESRS. The observed dynamics suggest endeavours to influence regulatory interpretation and sectoral narratives, thereby exerting a form of influence over the institutional context.

A secondary, more inward-oriented form of manipulation pertains to the strategic reinterpretation of sustainability logics within the organisational framework. The introduction of financial materiality functions as a lever to render sustainability “credible” and actionable for operational and business functions. This is not merely rhetorical alignment, but rather purposeful institutional work aimed at expanding the strategic relevance of sustainability.

Taken together, these two forms of manipulation illustrate a proactive and deliberate attempt to influence both the external regulatory environment and the internal cognitive frames through which organisational actors make sense of sustainability. This dual perspective facilitates a more precise interpretation of manipulation as a strategic reframing activity, rather than symbolic “green talk”, coherently positioned within the spectrum of advanced institutional responses described by Oliver.

Concurrently, the dimensions of “*Structural & process integration*” and “*Methodological alignment for transformation*” indicate a transition from predominantly bureaucratic changes to phenomena potentially associated with reorientation (Laughlin), whereby business systems and processes initiate the structural integration of sustainability logic. The aforementioned shift is corroborated by the following dimensions: “*Innovation beyond compliance*”, “*Embedding sustainability logic*” and “*Business-case legitimisation*”. In conclusion, the dimensions entitled “*Materiality evolution & expansion*” and “*Embedding sustainability in supply chains*” serve to confirm the progressive extension of the thematic and operational boundaries of reporting. In addition, the dimension “*Regulatory pressure & uncertainty management*” demonstrates

how regulatory ambiguity is driving critical reflection and potentially influencing standard-setting processes.

The introduction of the CSRD did not represent a radical change for Alpha, but rather the acceleration and further structuring of an already sufficiently mature sustainability path, acting as an institutional driver (“regulatory push”). The decision to develop an integrated report was taken in 2020, with a view to anticipating the regulatory requirements that made it mandatory by 2024. This demonstrates how the organisation initially exhibited an attitude of early acquiescence in response to institutional pressure. Gradually, regulatory pressure has become a genuine cultural catalyst, promoting the integration of existing information and operational systems. This transition from a focus on simple compliance to a more comprehensive approach involving organisational change signifies a shift towards a form of institutional compromise. In this paradigm, sustainability is no longer regarded as a regulatory constraint, but rather as a strategic asset for managing organisational risk and enhancing reputation. Indeed, despite the company's prior strategic integration of sustainability and its comparatively less revolutionary organisational change in comparison to other corporations, the new regulation was regarded as a significant catalyst for the strategic legitimisation of sustainability. This was achieved through the dissemination of a novel mindset across various levels of the organisation.

The factor with the greatest impact and internal cultural change was the introduction of the principle of double materiality and, in particular, financial materiality. This was adopted as an enabling tool for the full legitimisation of sustainability in operational functions. This lens, which connects sustainability considerations to the economic and financial dimensions of the company, has altered the company's perception of sustainability. It has reinforced the role of sustainability as a pillar of the company's strategy, particularly in the context of its shared commitment to the dissemination of sustainability values. The anchoring of these values in the impacts generated by sustainability issues on the company's ability to create value has significantly enhanced their comprehensibility, thereby contributing to a more robust and effective sustainability strategy. This strategy of institutional manipulation, when executed effectively, can have a positive impact on the company's ability to reinterpret the regulatory framework and transform it into a strategic opportunity. It is important to note, however, that the introduction of financial materiality did not necessitate the creation of a new risk management process. Instead, it required a reorganisation of the ERM process. This was considered to be sufficiently mature and flexible to consistently and effectively support the requirements of financial materiality. Therefore, this can be regarded as a form of pragmatic acquiescence, characterised by the strategic use of existing processes to absorb new requirements without disrupting the corporate structure. In this integration process, the company has equipped itself with ad hoc/vertical specialist tools, such as ESG-related risk and opportunity drivers, to support the identification of risks and opportunities in line with ESRS topics. Moreover, the implementation of this materiality was enabled by a reinforcement of cross-functional collaboration and, from a theoretical perspective, by a shift from a logic of mere compliance to an evolutionary approach of strategic compromise. Consequently, the impact materiality assessment activity itself underwent a partial modification in its structure, with the adoption of certain methodological elements from ERM to ensure greater consistency throughout the double materiality assessment

process. The final structure of the double materiality process was the result of a cross-functional working group involving Sustainability, Risk Management and Consolidated sustainability statement.

The introduction of the CSRD has resulted in a substantial increase in reporting and control standards. This greater stringency is consistent with the company's decision, commencing in 2021, to subject specific sustainability performance indicators to reasonable assurance, with the objective of enhancing the robustness and reliability of sustainability data.

Another salient point pertains to the company's resolution to present entity-specific disclosures, including technological innovations deemed indispensable to its operations, in accordance with the ESRS. In instances where material issues arise at the individual entity level that do not fall within the purview of the ESRS, companies are obligated to report through entity-specific disclosures. To elaborate further, it should be noted that the ESRS obligation to disclose entity-specific information, in the case of materiality, reduces the area of discretion for companies, as it is no longer possible to systematically omit sensitive issues when they emerge as material. This phenomenon gives rise to a number of empirically significant effects, including a decline in the likelihood of systematic avoidance, which in turn compels companies in the A&D sector to articulate their rationales and assessments of materiality. This is evident in the interviewees' assertion of an augmented need for justification in disclosure decisions and an escalated demand for information and assurance systems. Consequently, the entity-specific obligation must be regarded as more than a mere regulatory encumbrance; it has the potential to serve as an institutional instrument that can propel companies along the continuum towards interpretative colonisation (Laughlin,1991), provided that organisational and digital capabilities are cultivated.

Emerging concepts relating to methodological homogenisation between financial and impact materiality, strategic risk governance and the extension of the thematic scope indicates the initiation of a transformative change, in which double materiality becomes a criterion for defining strategic priorities. The interviews demonstrate an evolutionary progression in the use of technology, initially as methodological support (enabling data collection, structuring processes and assessments) and subsequently as a strategic lever for integrating sustainability into risk assessment and the definition of ESG financial impact. Initially, the process of adapting to ESRS requirements was perceived to involve excessive effort and additional compliance, generating internal resistance, especially in functions with limited experience of sustainability. However, the implementation of digital tools and structured processes is gradually reducing this operational burden, facilitating change management and transforming disclosure from a perceived obligation to a more efficient and integrated practice.

Despite the Group's maturity, adapting to CSRD also presented certain difficulties. The primary challenge lay in the necessity to engage a greater number of company figures in order to collect the data necessary to support the new reporting requirements, as well as to facilitate the process of analysing the materiality of issues that, prior to the introduction of CSRD, had not been taken into consideration or were reported differently. This also resulted in moments of frustration regarding the implementation of highly complex processes to ascertain the relevance of metrics that, upon analysis, proved to be of little material significance. Moreover, in view of the company's extensive value chain, a

concerted effort was made to support the collection of information that was as reliable as possible without being overly onerous.

In contemplating the future, the Sustainability unit identifies areas for enhancement, particularly with regard to the development and consolidation of more systematic calculation methodologies. This objective can be pursued, in part, by establishing specialised verticals based on formalised procedures rather than on staff assessments.

It is important to emphasise that CSRD acted as a cultural catalyst for Alpha, leveraging financial materiality to consolidate the integration of sustainability and risk management and to improve the quality of reporting. Metaphorically speaking, CSRD can be likened to the installation of an advanced satellite navigation system on an aircraft that already flew well. The aircraft had already demonstrated robust characteristics (mature ERM), however the integration of novel technological systems (financial materiality) compelled the crew (representing diverse corporate functions) to employ standardised maps (ESRS) and to coordinate in a more formal and precise manner. This ensured the verifiability and reliability of all data collected during the flight. In summary, Alpha's strategic path can be interpreted as a conceptual progression of institutional responses, as outlined in Table 27 below.

**Table 27.** Alpha's evolving strategic response

Strategic response (Oliver, 1991)	Empirical analysis (Aggregate Dimensions)	Interpretation
Anticipatory acquiescence	Normative push and cultural shift	Proactive attitude, the company anticipates regulatory requirements
Pragmatic Acquiescence	Normative push and cultural shift; Structural & process integration; Assurance & data governance improvement	Reactive, the company handles operational workloads
Compromise	Normative push & cultural shift; Business-case legitimisation; Compliance pressure & operational burden; Structural & process integration; Methodological alignment for transformation; Embedding sustainability in supply chain	Cultural and procedural balance, internal integration among different units
Avoidance	Transparency tension	Selective use of disclosure in sensitive contexts
Defiance	(no dimensions emerged)	No evidence of open resistance
Manipulation	Business-case legitimisation; Strategic impact orientation; Innovation beyond compliance; Embedding sustainability logic; Legitimacy & strategic narrative Influence; Regulatory pressure & uncertainty management; Materiality evolution & expansion	Deliberate use of sustainability to influence the external institutional context and reinforce internal understanding, making sustainability principles credible and actionable for business operations

Source: Own elaboration

This strategic path reflects a shift from a reactive to an active approach to sustainability management, with direct implications for the structure of processes and the strategic direction of corporate sustainability. The analysis demonstrates a consistent and gradual

evolutionary path, which can be interpreted as a progression from anticipatory compliance to proactive and strategic management of regulations. Along this trajectory, the organisation moves from adaptive forms of acquiescence to more purposive responses such as compromise and manipulation, using regulatory pressure as an opportunity to reinforce existing frameworks and strengthen its strategic positioning. Starting from the description of this strategic path of the organisation and looking at it from a medium- to long-term evolutionary perspective, it should be noted that it falls within the model of organisational change defined by Laughlin (1991) as Reorientation (First Order/Morphostatic Change). This is consistent with the internal perception that the company was already mature and that the CSRD requirements did not cause a significant revolution, given the primary strategic focus on sustainability issues. In more specific terms, the concept of reorientation denotes a modification of organisational structures and operational processes (design archetype and sub-systems) with a view to the absorption of external pressure, whilst maintaining the integrity of core interpretative schemes (fundamental ethos). However, it is imperative to emphasise the instrumental role attributed to the introduction of financial materiality in terms of driver of cultural change and mindset at multiple organisational levels. In place of modifying the underlying value system, these mechanisms have served to reinforce the pre-existing interpretive scheme, rendering sustainability more intelligible, credible and actionable for business and operational functions. The financial perspective has thus functioned as a catalyst for operationalising an already consolidated cultural orientation towards sustainability, rather than as a mechanism for cultural substitution. This observation lends further credence to the hypothesis of Reorientation, which posits that external pressures have prompted adjustments within the design archetype and sub-systems, while the core interpretive scheme remains stable and is, in fact, reinforced. Concurrently, the evidence of strategic responses that correspond to compromise and manipulation, and the integration between risk, sustainability and finance, the strategic use of financial materiality to render sustainability issues comprehensible to business functions, and the organisation's active engagement in shaping sectoral narratives and regulatory debates, all constitute deliberate and negotiated responses to institutional pressure. As outlined in Table 28 below, these responses further corroborate the interpretation of a change path rooted in Reorientation, that is to say, adaptive, negotiated and strategically shaped, rather than in any form of imposed, second-order cultural transformation. This phenomenon is consistent with the characteristics of an organisation that possesses a “strong ideology” (Brunsson, 1985; Laughlin, 1991), where high commitment and a mature interpretive scheme, reinforced by the strategic use of financial materiality, permit the internal absorption of institutional pressure as adaptation, rather than fundamental cultural revolution.

**Table 28.** Strategic and organisational evolution of Alpha S.p.a.

<b>Strategic response (Oliver, 1991)</b>	<b>Organisational change model (Laughlin, 1991)</b>	<b>Empirical analysis (Aggregate Dimensions)</b>	<b>Interpretation</b>
Anticipatory acquiescence	Reorientation	Normative push and cultural shift	Proactive compliance, the company anticipates regulatory requirements without altering the corporate ethos
Pragmatic acquiescence	Reorientation	Normative push and cultural shift; Business-case legitimisation; Structural & process integration; Assurance & data governance improvement	Reactive operational adjustments, without altering the company ethos
Compromise	Reorientation	Normative push & cultural shift; Structural & process integration; Methodological alignment for transformation; Business-case legitimisation; Compliance pressure & operational burden; Embedding sustainability in supply chain	Cross-functional and cultural integration, balancing institutional pressures and internal processes
Avoidance	(no significant change)	Transparency tension	Selective disclosure in sensitive contexts; limited and controlled response
Defiance	(no significant change)	(no dimensions emerged)	No evidence of ongoing resistance
Manipulation	Reorientation	Business-case legitimisation; Strategic impact orientation; Innovation beyond compliance; Embedding sustainability logic; Legitimacy & strategic narrative Influence; Regulatory pressure & uncertainty management Materiality evolution & expansion	Deliberate strategic use of sustainability to influence external institutional context and reinforce internal cognitive frames, enhancement of strategic relevance without radical cultural disruption

Source: own elaboration

### *3.5.3 Connecting case study interviews with content analysis*

The analysis of organisational change at Alpha S.p.a. is based on a triangulation between content analysis and the interpretation of the process by the key units primarily involved in the change (case study interviews). These are interpreted through the lens of Oliver's strategic responses (1991) and Laughlin's organisational change Models (1991). The contextual interviews enabled the confirmation of the view of CSRD as an environmental disturbance, with the stated ambition to trigger a second-order transformation (Morphogenesis). This is aimed at activating a profound process of integrating sustainability into corporate value systems. However, the experts interviewed reported a risk of “institutional fatigue” due to regulatory complexity. Furthermore, the A&D sector was identified as characterised by information restrictions and entrenched interpretative frameworks, which structurally predispose the organisation towards defiance and manipulation, with a likely evolution towards Reorientation or even Rebuttal (Morphostasis) solutions, in which the regulatory kick is deflected to protect the core corporate ethos. This theoretical framework provided the critical lens for interpreting Alpha's response: a mature organisation that anticipates regulation not to bring about a revolution in its values, but rather to reinforce its legitimacy in an uncertain geopolitical context.

The integration of case study interviews' findings and content analysis demonstrates that institutional pressures activate a cumulative transformation process, whereby compliance evolves into strategic alignment once the required internal capabilities are developed. More precisely, the analysis helped to illustrate how external pressures interacted with internal capabilities (digital transformation, leadership commitment) to shape strategic responses, confirming that organisational maturity and strategic use of technology positively influence the ability to move beyond compliance. The evolution of Alpha's approach serves to substantiate the hybrid and dynamic nature of strategic responses, wherein acquiescence coexists with manipulation, and structural change precedes cultural transformation.

At the documentary level, content analysis facilitated the tracing of the historical progression of strategic responses, thereby identifying an evolutionary trajectory that evolves from an initial reorientation (2016) to a potential initial form of colonisation (2023), which ultimately culminates in a hybrid change characterised by a strong structural embedding of sustainability (2024). The analysis emphasised the strategic utilisation of manipulation through the reinterpretation of sectoral narratives (e.g., AI innovation and cybersecurity as compatible with the SDGs). As outlined in Table 29 below, the data triangulation process facilitated the identification of a substantial degree of consistency between the content analysis labels, which describe the public, structural and procedural manifestations of change (the “what has been done”), and the aggregate dimensions that emerged from the interviews. These dimensions exposed the internal mechanisms, tactics and cultural and strategic motivations (the “how” and “why”) that guided and enabled the implementation of these changes. To elaborate further, the content analysis labels represent the objective and documentary evidence of organisational changes (e.g. the introduction of double materiality), while the aggregate dimensions emerging from the case study interviews provided an interpretative key to understanding

how the organisation negotiated, legitimised and instrumentalised (Compromise and Manipulation tactics) these changes internally.

**Table 29.** Representing emerged coherence between content analysis labels and case study interviews aggregate dimensions

<b>Content analysis labels (external manifestation)</b>	<b>Aggregate dimensions emerged from Case study interviews (internal mechanisms/motivations)</b>	<b>Interpretation</b>
Integration of sustainability in the strategy	Normative push and cultural shift and Embedding sustainability logic	The need for legitimacy and regulatory pressure (CSRD) have driven the transformation of sustainability into an intrinsic part of corporate identity by pushing it to the core of strategy. This constitutes a strategic response of anticipatory acquiescence.
Changes in the business model	Innovation beyond compliance and Legitimacy & Strategic Narrative Influence	Technological innovation is viewed as an enabler of methodological and procedural integration of sustainability and finance. Furthermore, the evolution of the model is supported by the redefinition of the sector narrative, shifting the focus from negative military to positive security, which is an active tactic of manipulation.
Management system	Structural & process integration	Financial materiality did not require a new process, but rather a reorganisation of the existing ERM and cross-functional coordination between functions. The management system is consistent because it is made feasible by the integration of processes and functions. This integration, which is typical of a structural compromise response, is also demonstrated by the alignment of the same ESG KPIs for both management remuneration and financing instruments (SLFs),

Materiality assessment and Double materiality assessment	Materiality as strategic driver, Materiality evolution & expansion, Business-case legitimisation and Methodological alignment for transformation	Double materiality is also seen as a criterion for defining an organisation's strategic priorities. The expansion of the thematic scope identified in the interviews validates the procedural evolution documented. Financial materiality, in particular, has been used as a tool to make sustainability more understandable to operational and business functions. Procedural adoption is essentially the vehicle for cultural change.
Assurance and Reconfiguration of assurance through new technologies	Assurance & data governance improvement and Innovation beyond compliance	Creating a specific internal control model for sustainability reporting with the involvement of the Internal Audit department strengthens the reliability of the data. Furthermore, using technology as a methodological and procedural enabler provides the infrastructure and capacity needed to implement reconfigurations of assurance in future, with a view to greater rigour and data accuracy.
Restatement of sustainability report Content	Regulatory pressure & uncertainty management and Transparency tension	The company is burdened by complexity and a lack of clarity in standards (ESRS), making restatements an inevitable part of transparent reporting and adaptation, particularly in sensitive sectors.

Source: own elaboration

The consistency identified between labels and aggregate dimensions also emerges in terms of comparative analysis between the strategic responses (Oliver, 1991) that emerged from the content analysis of company documents and those identified in the case study interviews, albeit with a crucial discrepancy in the interpretation of the Change Model (Laughlin, 1991). To elaborate further, the strategic responses identified in public documents are reflected and explained operationally in the dimensions that emerge from the interviews.

The initial response identified was acquiescence. In more detail, content analysis revealed a high level of acquiescence (2016, with the first Sustainability Report in accordance with the NFRD), which then evolved into a form of anticipatory acquiescence (2023, CSRD/ESRS preparation). The interviews confirmed the presence of an acquiescence response, thus allowing for the identification of a distinction between anticipatory acquiescence and pragmatic acquiescence, characterised by the transformation of regulatory pressure into a catalyst for cultural change.

Moreover, content analysis revealed a strategic response of compromise in 2020 and 2024, as evidenced by the correlation between management remuneration and ESG objectives, and the incorporation of sustainability objectives into the business plan and supplier evaluation. Conversely, the case study interviews yielded evidence of the operational mechanisms that enabled this compromise to occur, which can be summarised in aggregate dimensions such as “*Structural and process integration*” and “*Methodological alignment for transformation*”. This balance was achieved through cross-functional coordination between the Sustainability, Risk Management and CSS units and methodological harmonisation in the double materiality assessment, demonstrating an adaptive and negotiated response to institutional pressures.

Among the company's strategic responses, content analysis allowed the emergence of a form of manipulation to be identified in 2023, formalised in 2024, through attempts to influence the legitimacy of the defence sector according to EU rules and through the use of governance innovations. The interviews then revealed the dual nature of this manipulation. Firstly, it was defined as external and sectoral, with the aim of redefining the narrative of the A&D sector in terms of security and technological resilience. Secondly, it was identified as internal, in which the introduction of financial materiality has been used strategically as a lever to make sustainability more understandable to operational functions. This is a deliberate tactic to reinforce internal framing.

The content analysis also noted the persistence of an avoidance strategy, which, according to the interviews, corresponds to the selective disclosure of sensitive information relating to the sector, as required by the latter.

As part of the content analysis, a form of defiance was also identified in 2024, which did not emerge from the interviews. The identification of defiance in the 2024 period as “selectively resisting narratives” stems from the presence of a form of challenge (challenging rules and requirements) to the criteria of the European Taxonomy. These criteria state that the “significant contribution” requirements were defined for commercial goods and do not take into account the “peculiarities of the defence sector”. In addition to this, there is a need to define its own sectoral narrative in order to position its activities (global security, cyber, space) as essential in terms of sustainable resilience. This active effort to publicly challenge the external sustainability narrative is interpreted as resistance to institutional values that diverge from internal interests. However, the interviews, which sought to capture the internal motive and meaning attributed to the behaviour by the key roles interviewed, allowed us to understand how this corporate attitude is closer to manipulation than defiance. To elaborate further, it is evident that the organisation's objective is not one of defiance, but rather of influence. The interviews demonstrate that the organisation's goal is not to ignore or attack the CSRD, but rather to influence the external institutional context and strengthen its own strategic position. The absence of any indication of defiance during the interviews is indicative of the organisation's strategic decision to adopt a path of negotiated adaptation, characterised by compromise and reorientation, as opposed to direct confrontation with institutional pressures.

The most significant discrepancy identified between the results of the content analysis and those emerging from the case study interviews lies in the fact that the former concludes that the organisation is in a form of initial transition towards colonisation (2023) or, more specifically, hybrid change (2024), while the latter concludes that the emerging change model is more aligned with that of reorientation.

This discrepancy can be attributed to the finding that content analysis, which is predominantly concerned with the examination of the structures and processes documented in the records, has revealed a substantial degree of structural integration, marked by significant and substantial changes that point to the possible onset of colonisation. Indeed, the reports document the integration of sustainability themes into the 2024-2028 Business Plan, the alignment of management remuneration with ESG objectives, the institutionalisation of the Sustainability Operational Model and the early adoption of double materiality. However, the interviews yielded direct evidence of the interpretive core (Interpretive Schemes), whose potential alteration constitutes the fundamental criterion that distinguishes reorientation from colonisation. To elaborate further, assuming that the process of colonisation implies the alteration or radical replacement of core values, the interviews demonstrated that Alpha's core ethos has not been replaced; on the contrary, it has been strengthened and made more credible by exploiting the logic of sustainability. The factor of greatest cultural change, namely financial materiality, has been used as a tool to legitimize sustainability in the eyes of operational functions, translating sustainability concepts into economic language. This process of translation and reinforcement is characteristic of reorientation, wherein systems undergo changes to accommodate pressure and safeguard core values, thereby averting any form of revolution. Furthermore, it is important to acknowledge that the identification of a form of "hybrid change" through content analysis acknowledges the presence of "partial interpretive resistance". This partial resistance can be interpreted as evidence that the process of colonisation has not been achieved. This is due to the resistance of the core corporate ethos and an adaptive and negotiated absorption of sustainability values.

In summary, content analysis allowed for an examination of the extent of structural change (which suggests traces of colonisation), while interviews facilitated an investigation into the stability of interpretative patterns, focusing attention on the nature of cultural and value change (which denies colonisation and confirms reorientation). The content analysis captured the ambition of structural change aimed at colonisation, in line with the morphogenetic ambition identified as the primary goal of CSRD. Through interviews, it was ascertained that the actual result was an advanced reorientation in which manipulation and pragmatic acquiescence allowed the organisation to maintain its stable interpretative core, despite the adaptations of the design archetypes.

In conclusion, as demonstrated in Table 30 below, content analysis enabled the identification of the onset of colonisation by observing significant structural symptoms. However, the results of the case study interview analysis refuted this diagnosis, identifying strategic responses that enabled the organisation to maintain the integrity and strength of its interpretative frameworks. This confirms the existence of a dynamic balance between external legitimisation and identity preservation, which can be attributed in part to the unique characteristics of sensitive sectors such as A&D.

**Table 30.** Comparison of the results of content analysis and case study interviews

<b>STRATEGIC RESPONSES</b>	
<b>Content analysis</b>	<b>Case study interviews</b>
<b>Acquiescence</b> (2016, 2020, 2023, 2024)	<b>Acquiescence</b> (Anticipatory and pragmatic)
<b>Compromise</b> (2016, 2020, 2023, 2024)	<b>Compromise</b>
<b>Manipulation</b> (2023, 2024)	<b>Manipulation</b> (Internal and external/sectoral)
<b>Defiance</b> (2024)	<b>No Defiance evidence</b>

↔

<b>CHANGE MODELS</b>	
<b>Content analysis</b>	<b>Case study interviews</b>
<b>First trace of reorientation</b> (2016)	
<b>Consolidated reorientation</b> (2020)	
<b>Potential start of transition toward colonization</b> (2023)	<b>Reorientation</b>
<b>Hybrid change</b> (2024, sustainability structural embedding and partial interpretive scheme resistance)	
<b>Final interpretation of the data:</b> The stability of the interpretative schemes was demonstrated thanks to the case study interviews, and the Reorientation change model emerged as result.	

Source: own elaboration

### 3.6 Discussion

The starting point of this chapter was the regulatory wave triggered by heightened societal concern about sustainability and, in the European context, the CSRD/ESRS as the centrepiece of the EU Sustainable Finance Strategy aimed at improving the quality, comparability, and decision-usefulness of sustainability information (European

Commission, 2020<sup>71</sup>; KPMG, 2024<sup>72</sup>). As highlighted in the Introduction, this orientation resonates with a long-standing view of regulation as a lever to enhance disclosure and accountability (Deegan, 2002). Yet our results reinforce the caution advanced by the normativity literature: formal legislation, by itself, does not automatically create a norm of practice or deeper institutional change (Bebbington et al., 2012; Luque-Vílchez et al., 2024). What ultimately matters is how organisations interpret, operationalise, and routinise the new requirements—whether they become embedded as taken-for-granted practices or remain a procedural compliance exercise. Our findings show that the CSRD is indeed experienced as an “environmental disturbance” (Laughlin, 1991), but the organisational consequences of that disturbance are contingent on sectoral conditions, organisational maturity, and the strategic repertoire activated by firms under uncertainty.

This study responds to Garcia-Torea and Luque-Vílchez’s (2025) call for a more profound examination of the CSRD’s transformative potential by focusing on aerospace and defence, a sector where the Directive’s ambitions are tested under particularly stringent conditions: ethical tensions around “defence and sustainability,” information restrictions, and a dominant stakeholder—government—raising the salience of compliance risk. Importantly, the context is further characterised by heightened uncertainty, not only because the regulatory regime is still being implemented, but also because anticipated simplification through the Omnibus amendment package creates an unstable institutional horizon. Consistent with the Introduction’s argument that early phases are empirically challenging because long-term dynamics are not yet traceable, we therefore concentrated on short-term strategic responses as actionable signals of medium- to long-term trajectories.

By integrating Oliver’s (1991) typology of strategic responses with Laughlin’s (1991) models of change, we were able to connect the “near-term” and the “longer-term” analytically—exactly the bridge proposed in the Introduction. The case evidence suggests that strategic responses are not static and do not unfold in a linear sequence. Rather, they are hybrid, layered, and dynamic, and they can evolve as organisations learn, as implementation burdens become clearer, and as stakeholder pressures shift. The high levels of complexity and organisational maturity are compatible with a form of cumulative transformation. In this transformation, acquiescence can evolve towards more sophisticated forms of compromise and manipulation and, at the same time, can coexist with forms of manipulation. In our case, the regulatory “kick” initially triggered anticipatory acquiescence—a legitimacy-seeking response activated before full enforcement—and then pragmatic acquiescence, through which Alpha S.p.a. reorganised existing infrastructures (notably ERM and adjacent control routines) to absorb the new CSRD/ESRS requirements. This matters because it qualifies a simplistic interpretation of acquiescence as passive compliance: here, acquiescence was strategic and capacity-based, using existing systems to meet the four major CSRD shifts outlined in the Introduction (expanded perimeter, ESRS, assurance, digital tagging) without

---

<sup>71</sup> [https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth\\_en](https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth_en)

<sup>72</sup> <https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2024/11/the-move-to-mandatory-reporting-report.pdf?utm>

destabilising core operating logics. In other words, the “reporting reform” began to work as a governance and systems reform—but in a manner shaped by pre-existing organisational arrangements.

A key theoretical advancement concerns our refinement of manipulation. In the Introduction, we emphasised that regulation may catalyse change but does not guarantee it; our findings clarify one mechanism through which transformative potential is pursued under high uncertainty. Manipulation emerged as both (i) external institutional work, expressed through active engagement with ESRS-related debates and participation in the (re)construction of sector narratives, and (ii) internal strategic reconceptualisation, whereby financial materiality became a language and tool to increase the credibility of sustainability within operational and business functions. This internal dimension is crucial for normativity: it shows how sustainability can be made decision-relevant inside the organisation—not only by producing disclosure for external audiences, but by reframing sustainability as strategically material in internal arenas where legitimacy is earned through performance, risk, and investment rationales. The case thus supports the Introduction’s premise that the CSRD’s architecture can operate as a catalyst for internal change, but it also shows that the “catalysis” is mediated through strategic reframing rather than through straightforward value replacement.

The findings also illuminate why the CSRD’s most distinctive architectural feature—double materiality—is central to the Directive’s morphogenetic ambition, yet may operate in a more nuanced way in practice. Interview evidence positioned double materiality as the cornerstone of transformation; however, the process did not displace the company’s interpretive core. Instead, double materiality functioned as an integrative, recursive mechanism that structured internal deliberation and consolidated sustainability’s legitimacy across functions, activating an institutional work aimed at expanding the strategic relevance of sustainability. This aligns with Kapplmüller et al. (2025) in treating double materiality not as a technical exercise, but as a negotiated, iterative process embedded in organisational cultural and political dynamics. In the Alpha case, double materiality strengthened an advanced reorientation: it accelerated and structured a pre-existing path, anchoring sustainability more firmly in operational routines without requiring a cultural rupture, which is particularly pertinent in contexts characterised by strong interpretive schemes. This is precisely the sort of “internal dynamics” that the Introduction identified as critical for whether a reporting mandate becomes routinised into emerging norms.

At the same time, triangulation between the content analysis and interviews clarifies an important boundary condition to the transformative promise implied in the Introduction. While the content analysis and the theoretical hypotheses (see theoretical framework par. 3.2.3) could suggest that manipulation might develop into colonisation, the interview evidence indicates that organisations with a “strong ideology” and high maturity (Brunsson, 1985; Laughlin, 1991) may accept significant structural adaptation while resisting deep interpretive transformation. In this context, manipulation did not result in revolutionary change; rather, it was internalised and managed in ways that preserved the interpretive core. This finding helps to explain the discrepancy observed between the Directive’s second-order aspirations (morphogenesis/colonisation) and the empirical

outcome (advanced reorientation), providing the procedural detail that Laughlin considered necessary for expanding upon the “skeletal” theoretical models.

The CSRD indeed triggered substantial changes in structures and processes—consistent with the Introduction’s claim that the new regime pushes revisions in governance, systems, controls, and coordination—but those changes remained compatible with the organisation’s entrenched interpretive schemes.

Finally, our results are consistent with and extend prior evidence on the strategic nature of responses to reporting mandates. Esteban-Arrea and Garcia-Torea (2022) show that Spanish firms under Law 11/2018 did not respond mechanically; rather, they adopted strategies shaped by the configuration and power of stakeholder demands, often leading to selective coverage and compromise. The findings confirm that strategic negotiation remains central under CSRD/ESRS, but the analysis was extended to a more ambitious regulatory architecture and to a sectoral setting where stakeholder dominance, disclosure constraints, and interpretive strength are extreme. In doing so, we move beyond identifying responses to clarifying how responses translate into organisational mechanisms (e.g., ERM integration, data governance, and financial materiality framing) and how those mechanisms shape the plausibility of longer-term change trajectories. The broader implication is that the CSRD’s goal of creating decision-useful, comparable sustainability information is inseparable from the organisational work required to build the underlying systems—and that this work can simultaneously enable transformation and protect core identity.

### **3.7 Concluding remarks**

This study sets out to examine the CSRD’s transformative potential in its early phase, when long-term dynamics are not yet fully observable. Focusing on the A&D sector and drawing on a multi-method design combining content analysis and interviews with Alpha S.p.a., we show that the CSRD operates as an environmental disturbance that compels organisational response, but that its morphogenetic ambition is not realised automatically. The observed outcome is best characterised as advanced reorientation: substantial structural and process adaptations—often enabled by the strategic mobilisation of existing systems—combined with resilience of core interpretive schemes.

The chapter offers three main contributions. First, it integrates Oliver’s (1991) strategic response typology with Laughlin’s (1991) change models, providing a lens to interpret how near-term responses may connect to medium- to long-term trajectories under regulatory uncertainty. Second, it enriches theory through empirical substantiation: it refines the concept of manipulation by showing its dual external and internal forms, and it highlights double materiality as a dynamic mechanism that can legitimise and routinise sustainability within operational and business functions, frequently through the instrumental logic of financial materiality. Third, in response to calls to examine organisational change under the CSRD (García-Torea & Luque-Vílchez, 2025) and to the broader lack of in-depth, rigorous evidence on the effects of mandatory reporting (e.g., Christensen et al., 2021; Hummel & Jobst, 2024), this study provides practical insights for public officials, regulators, companies, and civil society. Specifically, it helps clarify

when—and through which organisational mechanisms—a reporting mandate can trigger deeper organisational transformations beyond mere compliance.

The study is limited by its reliance on a single revealing case in a sensitive sector and by its dependence on interview narratives to infer cultural change. Future research could extend these insights through comparative, multi-actor designs across sectors and through longer-term longitudinal observation to assess whether structural redesign eventually reshapes interpretive schemes as CSRD requirements mature (including assurance and digital tagging). Practically, the findings suggest that policymakers should approach simplification cautiously, as reducing complexity may ease institutional fatigue but could also weaken mechanisms that support routinisation and substantive integration. More broadly, the evidence indicates that the CSRD can seed organisational transformation beyond compliance—especially via double materiality—yet the depth of that transformation will depend on contextual mediators such as sectoral constraints, organisational maturity, interpretive strength, and the evolving institutional environment in which the Directive is implemented.

## CONCLUSIONS AND FINAL REMARKS

This thesis sets out to examine the efficacy of regulatory instruments in steering business organisations—whose impacts are salient for sustainable development—towards the implementation of sustainability principles and practices. In parallel, it aimed to assess whether regulation can facilitate a framework for modelling business systems, namely the internal processes, controls, decision arenas and routines through which sustainability is identified, managed and made decision-relevant. A core premise running throughout the dissertation is that regulation is not transformative “by default”: its capacity to generate substantive change depends on contextual and structural conditions that enable regulatory demands to be translated into organisational attention, internal processes and decision-making routines.

The thesis is anchored in the European institutional setting, where sustainability reporting and corporate conduct obligations are being reshaped through the CSRD, the ESRS and the CSDDD. This regulatory architecture is explicitly intended to do more than increase disclosure: by imposing structured requirements (notably double materiality), strengthening reporting standards, and introducing due diligence duties with enforcement mechanisms, it seeks to configure organisational behaviour and to embed sustainability into corporate governance and decision-making.

The dissertation develops a single narrative about the opportunities and challenges of the European regulatory shift by approaching the same overarching question—regulation’s capacity to drive sustainability-oriented change—from three complementary angles.

### ***Chapter 1 (Modern slavery and human rights):***

The first study establishes the normative and societal “why” of the thesis by focusing on modern slavery risk as a paradigmatic, high-stakes sustainability issue. It shows that both GRI standards and ESRS can raise awareness and provide reporting scaffolding for human rights-related disclosures, but that the ESRS—given the absence of a modern-slavery-specific standard and the possibility to omit topical disclosures deemed non-material—may not, on its own, be sufficient to guide effective change. The chapter therefore emphasises that the regulatory promise of social reporting depends critically on (i) the robustness of due diligence processes and (ii) the presence of enforcement capacity. Building on this diagnosis, it argues that the CSDDD can complement ESRS by shifting the emphasis from reporting to an enforceable due diligence logic across the chain of activities, while also warning that excessive obligations may produce unintended “formalistic” implementation. In response, the chapter proposes that co-enforcement and collaborative governance models—mobilising public authorities, NGOs, industry associations and other stakeholders—are essential for addressing “grey areas” and for translating reporting into systemic, preventive change rather than symbolic compliance.

### ***Chapter 2 (SEC ESG risk disclosure in A&D):***

The second study concentrates on the disclosure mechanism itself by examining mandatory ESG risk disclosure in U.S. 10-K reporting under SEC requirements, using a

sector-specific lens on aerospace and defence. The findings show that ESG risk disclosures tend to reproduce limitations already noted in risk-factor reporting: they are frequently generic and, in some instances, boilerplate, and they display a mimetic pattern in which firms converge towards competitors' disclosure profiles. With respect to mitigation, the analysis finds limited evidence of proactivity: mitigation is often framed as reactive or remains unspecified when risks are uncertain or outside managerial control—patterns interpreted as consistent with disclosure liability and litigation concerns. In the thesis narrative, Chapter 2 functions as a “lesson to be learned” for the European context: it clarifies what regulation can realistically deliver at the level of reporting outputs and demonstrates how mandatory disclosure may stabilise into defensive, minimally committal communication rather than into decision-useful specificity.

### ***Chapter 3 (CSRD, organisational responses and change trajectories in A&D):***

The third study moves from reporting outputs to organisational responses and change pathways under CSRD/ESRS, using Alpha S.p.a. as a relevant case in the Italian A&D sector. The analysis conceptualises CSRD as an environmental disturbance requiring organisational response, but it finds that the Directive's morphogenetic ambition does not translate automatically into deep interpretive transformation. The observed outcome is best characterised as advanced reorientation: substantial adaptations in structures and processes (design archetypes and sub-systems) combined with partial resistance of interpretive schemes, which remain anchored in sectoral and organisational “strong ideology” dynamics. Importantly, the case shows that strategic responses are hybrid, layered and dynamic (e.g., anticipatory and pragmatic acquiescence combined with compromise and manipulation), and that these strategies are central to understanding how regulatory pressure is absorbed, redirected or stabilised within organisational routines.

A key mechanism identified in Chapter 3 is the instrumental role of double materiality. Interview evidence presents double materiality as the cornerstone of CSRD's transformative ambition, but the empirical analysis shows that—particularly through the internal mobilisation of financial materiality—it tends to operate less as a device for replacing core values and more as an integrative, recursive process that consolidates sustainability's legitimacy across functions. This supports the interpretation of double materiality as a dynamic process of organisational change that cannot be reduced to a static technical compliance exercise.

Chapter 3 also foregrounds the fragility of the institutional environment as a boundary condition for transformation. Empirical evidence documents risk of institutional fatigue associated with regulatory complexity and ambiguity, as well as sectoral resistance linked to information restrictions and entrenched interpretive frameworks. Moreover, it highlights how simplification through the Omnibus package is perceived as generating uncertainty that legitimises avoidance and delays costly investments (e.g., double materiality analysis), thereby potentially diverting organisational learning processes.

Synthesising the three investigations, the thesis advances three overarching conclusions about the efficacy—and limits—of sustainability regulation as an instrument of organisational change.

First, regulation can reframe sustainability as an organisational object, but to regulate is not equivalent to change. Chapter 1 shows that ESRS can increase awareness and standardise the representation of human rights issues such as modern slavery through relevant social disclosure requirements. Yet it also demonstrates that the effectiveness of such visibility depends on due diligence rigor, guidance and enforcement, and may require complementary legal mechanisms such as the CSDDD and co-enforcement arrangements. This implies that, for severe social harms, disclosure-centred regulation risks routinising symbolic accountability unless it is coupled with enforceable obligations and collaborative capacity.

Second, mandatory disclosure can stabilise into compliance routines that are formally adequate but substantively thin. Chapter 2 documents how a mandatory disclosure regime can produce generic, mimetic and liability-shaped reporting, with limited articulation of proactive mitigation. This conclusion is analytically important for the EU project: it cautions that standardisation and mandatoriness do not, on their own, guarantee decision-useful information or a shift in organisational practice.

Third, the most plausible transformative mechanism of sustainability reporting regulation lies in its capacity to configure internal systems—yet this configuration may remain morphostatic in strong-ideology contexts. Chapter 3 demonstrates how CSRD/ESRS requirements can generate substantial structural and procedural reconfiguration (governance, integration with risk management, data governance, assurance-related internal credibility work), consistent with the thesis' second aim of regulation as a framework for modelling business systems. However, the case evidence also clarifies that structural embedding does not necessarily entail interpretive scheme transformation: in a mature organisation operating in a sensitive sector, change may consolidate as advanced reorientation rather than colonisation. In this sense, the thesis supports and specifies a broader insight presented in the concluding notes of the dissertation: non-financial/sustainability reporting can reshape design archetypes while leaving interpretive schemes comparatively stable, at the same time demonstrating the importance of internal decision-use and routinisation as means for deeper transformation.

### ***Implications for theory and method***

Across the thesis, the central theoretical implication is that sustainability regulation should be analysed not only as a “disclosure trigger” but as a configuring infrastructure whose effects depend on organisational translation processes and institutional conditions. Methodologically, the dissertation illustrates the value of combining (i) critical analysis of regulatory texts and standards, (ii) structured content analysis of disclosure outputs, and (iii) qualitative investigation of organisational processes and actors' interpretations, in order to connect regulatory intent, reporting practice and internal change dynamics.

### ***Implications for policy and practice***

For policymakers, the thesis suggests that the effectiveness of the European regulatory project depends on maintaining the credibility and stability of its institutional environment, including careful consideration of how simplification initiatives may inadvertently weaken the very mechanisms (e.g., double materiality processes, assurance-related credibility, data system building) that support routinisation and substantive integration. For organisations, the findings indicate that the operationalisation of sustainability regulation is inseparable from investments in internal cross-functional coordination, data infrastructures and control routines; however, such investments are sensitive to uncertainty and may be postponed when regulatory horizons become unstable.

### ***Limitations and future research directions***

The thesis acknowledges limitations that simultaneously delineate a future research agenda. First, the third investigation relies on a relevant case in a sensitive sector and infers cultural dynamics partially through interview narratives, which constrains generalisability and long-term verification of interpretive change. Institutional uncertainty, particularly in relation to anticipated reforms (Simplified ESRS and Omnibus package), creates a shifting target for empirical observation. This is in terms of the necessity to understand how companies will face regulatory uncertainty and how policymakers will be able to overcome it, ensuring operational clarity and long-term stability. These limitations provide a foundation for three prospective research directions that have been foreshadowed in the preceding chapters: (i) comparative, multi-actor and cross-sector designs to test how different institutional contexts shape routinisation and change trajectories; (ii) longitudinal tracking of organisations as CSRD assurance and digitalisation requirements mature; and (iii) research on how CSDDD enforcement interacts with ESRS reporting in practice, including cost–benefit dynamics and unintended consequences of compliance burden.

## References

- Abbott, W. F., & Monsen, R. J. (1979). On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of Management Journal*, 22(3), 501-515.
- Adams, C. A., & McNicholas, P. (2007). Making a difference: Sustainability reporting, accountability and organisational change. *Accounting, Auditing & Accountability Journal*, 20(3), 382–402.
- Aerospace & Defence. (2023). Sustainability Accounting Standard. INDUSTRY STANDARD VERSION 2023-06.
- Ahmad, N., Haque, S., & Islam, M. A. (2023). Modern slavery disclosure regulations in the global supply chain: A world-systems perspective. *Critical Perspectives on Accounting*, 99, 102677.
- Ahmad, R.W., Hasan, H., Yaqoob, I., Salah, K., Jayaraman, R., & Omar, M. (2021). Blockchain for aerospace and defense: Opportunities and open research challenges. *Computers & Industrial Engineering*, 151, 106982.
- Albelda-Pérez, E., Correa Ruiz, C., & Carrasco Fenech, F. (2007). Environmental management systems as an embedding mechanism: A research note. *Accounting, Auditing & Accountability Journal*, 20(3), 403–422.
- Alvesson, M. (2010). *Interpreting interviews*. Sage Publications, London.
- Amel-Zadeh, A., & Serafeim, G. (2018). Why and how investors use ESG information: Evidence from a global survey. *Financial Analysts Journal*, 74(3), 87–103.
- Amengual, M., & Fine, J. (2017). Co-enforcing labor standards: The unique contributions of state and worker organizations in Argentina and the United States. *Regulation & Governance*, 11(2), 129–142.
- Andrades, J., Martinez-Martinez, D., & Larrán, M. (2025). Sustainability reporting, institutional pressures and universities: evidence from the Spanish setting. *Sustainability Accounting, Management and Policy Journal*, 16(4), 1045-1071.
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543–571.
- Antoncic, M. (2019). Why sustainability? Because risk evolves and risk management should too. *Journal of Risk Management in Financial Institutions*, 12(3), 206–216.

- Antonini, C., & Gomez-Conde, J. (2024). Environmental management control systems and environmental innovation: Unintended consequences of the EU non-financial reporting directive. *Management Accounting Research*, 65, 100903.
- Arif, M., Sajjad, A., Farooq, S., Abrar, M., & Joyo, A.S. (2021). The impact of audit committee attributes on the quality and quantity of environmental, social and governance (ESG) disclosures. *Corporate Governance: The International Journal of Business in Society*, 21(3), 497–514.
- Arjaliès, D. L., & Mundy, J. (2013). The use of management control systems to manage CSR strategy: A levers of control perspective. *Management Accounting Research*, 24(4), 284–300.
- Arvidsson, S., & Dumay, J. (2022). Corporate ESG reporting quantity, quality and performance: Where to now for environmental policy and practice?. *Business Strategy and the Environment*, 31(3), 1091–1110.
- Bales, K. (2005). *Understanding global slavery: A reader*. University of California Press.
- Bales, K. (2012). *Disposable people: New slavery in the global economy, updated with a new preface*. University of California Press.
- Bales, K. (2017). Slavery in its contemporary manifestations, in *Critical readings on global slavery* (pp. 1660–1686). Brill.
- Ball, A., & Craig, R. (2010). Using neo-institutionalism to advance social and environmental accounting. *Critical Perspectives on Accounting*, 21(4), 283–293.
- Barney, J.B., & Clark, D.N. (2007). *Resource-based theory: Creating and sustaining competitive advantage*. OUP Oxford.
- Bebbington, J., & Larrinaga, C. (2014). Accounting and sustainable development: An exploration. *Accounting, Organizations and Society*, 39(6), 395-413.
- Bebbington, J., Kirk, E. A., & Larrinaga, C. (2012). The production of normativity: A comparison of reporting regimes in Spain and the UK. *Accounting, Organizations and Society*, 37(2), 78-94.
- Bebbington, J., Österblom, H., Crona, B., Jouffray, J. B., Larrinaga, C., Russell, S., & Scholtens, B. (2020). Accounting and accountability in the Anthropocene. *Accounting, Auditing & Accountability Journal*, 33(1), 152-177.
- Bebbington, J., Russell, S., & Thomson, I. (2017). Accounting and sustainable development: Reflections and propositions. *Critical Perspectives on Accounting*, 48, 21-34.

- Beck, A. C., Campbell, D., & Shrides, P. J. (2010). Content analysis in environmental reporting research: Enrichment and rehearsal of the method in a British–German context. *The British Accounting Review*, 42(3), 207–222.
- Benstead, A. V., Hendry, L. C., & Stevenson, M. (2021). Detecting and remediating modern slavery in supply chains: A targeted audit approach. *Production Planning & Control*, 32(13), 1136–1157.
- Beretta, S., & Bozzolan, S. (2004). A framework for the analysis of firm risk communication. *The International Journal of Accounting*, 39(3), 265–288.
- Beretta, S., & Bozzolan, S. (2008). Quality versus quantity: The case of forward-looking disclosure. *Journal of Accounting, Auditing & Finance*, 23(3), 333–376.
- Berg, B. and Lune, H. (2012). *Qualitative research methods for the social sciences*, 8th International Edition, Pearson, New Jersey.
- Bertram, A. (2025). Deregulating to No Avail: How the Omnibus Package Falls Short in Simplifying Key EU Green Deal Instruments. *Intereconomics*, 3, 170.
- Boersma, M., & Bedford, D. S. (2023). The role of market devices in addressing labour exploitation: An analysis of the Australian cleaning industry. *The British Accounting Review*, 55(3), 101129.
- Bouten, L. and Hoozée, S. (2013). On the interplay between environmental reporting and management accounting change. *Management Accounting Research*, Vol. 24 No. 4, pp. 333–348.
- Broadbent, J., & Laughlin, R. (2005). Organisational and accounting change: theoretical and empirical reflections and thoughts on a future research agenda. *Journal of Accounting & Organizational Change*, 1(1), 7–25.
- Brown, S.V., Tian, X., & Wu Tucker, J. (2018). The spillover effect of SEC comment letters on qualitative corporate disclosure: Evidence from the risk factor disclosure. *Contemporary Accounting Research*, 35(2), 622–656.
- Brunsson, N. (1985). *The irrational organization*. John Wiley & Sons.
- Burchell, S., Clubb, C., Hopwood, A., Hughes, J., & Nahapiet, J. (1980). The roles of accounting in organizations and society. *Accounting, Organizations and Society*, 5(1), 5–27.
- Burritt, R. L., & Christ, K. L. (2023). Modern slavery and the global reporting initiative—a bridge too far?. *Business Strategy & Development*, 6(3), 296–309.

- Campbell, J.L., Chen, H., Dhaliwal, D.S., Lu, H.M., & Steele, L.B. (2014). The information content of mandatory risk factor disclosures in corporate filings. *Review of Accounting Studies*, 19, 396–455.
- Cerbone, D., & Maroun, W. (2020). Materiality in an integrated setting: Insights using an institutional logics framework. *The British Accounting Review*, 52(3), Article 100876.
- Christ, K. L., & Burritt, R. L. (2023). Exploring effectiveness of entity actions to eliminate modern slavery risk—early Australian evidence. *The British Accounting Review*, 55(1), 101065.
- Christ, K. L., Rao, K. K., & Burritt, R. L. (2019). Accounting for modern slavery: An analysis of Australian listed company disclosures. *Accounting, Auditing & Accountability Journal*, 32(3), 836–865.
- Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies*, 26(3), 1176–1248.
- Cohen, G. (2023). ESG risks and corporate survival. *Environment Systems and Decisions*, 43(1), 16–21.
- Cole, R., Stevenson, M., & Aitken, J. (2019). Blockchain technology: Implications for operations and supply chain management. *Supply Chain Management: An International Journal*, 24(4), 469–483.
- Contrafatto, M. and Burns, J. (2013). Social and environmental accounting, organisational change and management accounting: a processual view. *Management Accounting Research*, 24 (4), 349-365.
- Contrafatto, M., Moggi, S., Gervasio, D., & Montani, D. (2025). Audit society, organisational response and (de-) coupling: an Italian story. *Accounting, Auditing & Accountability Journal*, 38(2), 537-564.
- Cooper, D. J., Hinings, B., Greenwood, R., Brown, J. L., Cooper, D. J., Hinings, B., ... & Brown, J. L. (1996). Sedimentation and transformation in organizational change: The case of Canadian law firms. *Organization studies*, 17(4), 623-647.
- Cordazzo, M., Papa, M., & Rossi, P. (2017). The interaction between mandatory and voluntary risk disclosure: A comparative study. *Managerial Auditing Journal*, 32(7), 682–714.
- Davies, J. (2016). *The birth of the Anthropocene*. Univ of California Press.

Deegan, C. 2002. Introduction: The Legitimizing Effect of Social and Environmental Disclosures – A Theoretical Foundation. *Accounting, Auditing & Accountability Journal*, 15 (3), 282–311.

Demartini, P. (Ed.). (2004). *Informazione, imprese e mercati finanziari efficienti: spunti di riflessione in una prospettiva multidisciplinare* (Vol. 358). FrancoAngeli.

Demartini, P., & Pagliei, C. (2023). Can we trust ESG ratings. *Management Control, Special*, (2).

Dienes, D., Sassen, R., & Fischer, J. (2016). What are the drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management and Policy Journal*, 7(2), 154–189.

Dodd, T., Guthrie, J., & Dumay, J. (2023). Management controls and modern slavery risks in the building and construction industry: Lessons from an Australian social housing provider. *The British Accounting Review*, 55(3), 101098.

Dubois, A. and Gadde, L.E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research*, Vol. 55 No. 7, pp. 553-560.

Eisenhardt, K.M., & Martin, J.A. (2000). Dynamic capabilities: What are they?. *Strategic Management Journal*, 21(10–11), 1105–1121.

Elshandidy, T., Shrives, P.J., Bamber, M., & Abraham, S. (2018). Risk reporting: A review of the literature and implications for future research. *Journal of Accounting Literature*, 40(1), 54–82.

Esteban-Arrea, R., & Garcia-Torea, N. (2022). Strategic responses to sustainability reporting regulation and multiple stakeholder demands: an analysis of the Spanish EU non-financial reporting directive transposition. *Sustainability Accounting, Management and Policy Journal*, 13(3), 600-625.

Esteban-Arrea, R., & Garcia-Torea, N. (2022). Strategic responses to sustainability reporting regulation and multiple stakeholder demands: an analysis of the Spanish EU non-financial reporting directive transposition. *Sustainability Accounting, Management and Policy Journal*, 13(3), 600-625.

Fernández Chulián, M., Garcia-Torea, N., Larrinaga, C., & Bebbington, J. (2025). Boundary objects: sustainability reporting and the production of organizational stability. *Accounting, Auditing & Accountability Journal*, 38(2), 509-536.

Fernández-Pérez, R., & Luque-Vílchez, M. (2024). Public administration accountability on the social pillar of sustainable procurement: a documentary analysis. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 53(1), 1-25.

- Fine, J. (2017). Enforcing labor standards in partnership with civil society: Can co-enforcement succeed where the state alone has failed?. *Politics and Society*, 45(3), 359–388.
- Fiondella, C., Macchioni, R., Maffei, M., & Spanò, R. (2016). Successful changes in management accounting systems: A healthcare case study. *Accounting Forum*, 40 (3), 186-204.
- Flynn, A. (2020). Determinants of corporate compliance with modern slavery reporting. *Supply Chain Management: An International Journal*, 25(1), 1–16.
- Flynn, A., & Walker, H. (2021). Corporate responses to modern slavery risks: An institutional theory perspective. *European Business Review*, 33(2), 295–315.
- Fraser, M. (2012). “Fleshing out” an engagement with a social accounting technology. *Accounting, Auditing & Accountability Journal*, 25(3), 508–534.
- Gangi, F., Mustilli, M., Daniele, L.M., & Coscia, M. (2022). The sustainable development of the aerospace industry: Drivers and impact of corporate environmental responsibility. *Business Strategy and the Environment*, 31(1), 218–235.
- Garcia-Torea, N., & Luque-Vílchez, M. (2025). The EU Sustainability Reporting Mandate in Spain: Challenges and Opportunities for Practice and Academia. *Social and Environmental Accountability Journal*, 1-14.
- Garcia-Torea, N., Larrinaga, C., & Luque-Vílchez, M. (2023). Bridging the understanding of sustainability accounting and organizational change. *Organization & Environment*, 36(1), 17-38.
- Garcia-Torea, N., Luque-Vílchez, M., & Rodríguez-Gutiérrez, P. (2024). The EU Taxonomy, sustainability reporting and financial institutions: understanding the elements driving regulatory uncertainty. *Accounting Forum*, 1–28.
- Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2018). Finding theory–method fit: A comparison of three qualitative approaches to theory building. *Journal of Management Inquiry*, 27(3), 284-300.
- Georgakopoulos, G., & Thomson, I. (2008). Social reporting, engagements, controversies and conflict in an arena context. *Accounting, Auditing & Accountability Journal*, 21(8), 1116–1143.
- Ghadge, A., Dani, S., & Kalawsky, R. (2010). A framework for managing risks in the aerospace supply chain using systems thinking. In 2010 5th international conference on system of systems engineering (pp. 1–6). IEEE.

- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15-31.
- Glazerman, G., & Cohen, J. (2020). “Non-financial” is a misnomer but doesn't have to be a missed opportunity. *Journal of Applied Corporate Finance*, 32(2), 108–116.
- Gold, S., Trautrim, A., & Trodd, Z. (2015). Modern slavery challenges to supply chain management. *Supply Chain Management: An International Journal*, 20(5), 485–494.
- González, C. L., Gilet, A. L., & Julià, M. P. (2006). El papel de la información medioambiental en el cambio organizativo: el caso del sector turístico balear. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 35(130), 501-522.
- Gray, R. (2002). The social accounting project and Accounting Organizations and Society Privileging engagement, imaginings, new accountings and pragmatism over critique?. *Accounting, Organizations and Society*, 27(7), 687-708.
- Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability... and how would we know? An exploration of narratives of organisations and the planet. *Accounting, Organizations and Society*, 35(1), 47-62.
- Gray, R., Walters, D., Bebbington, J., & Thompson, I. (1995). The greening of enterprise: an exploration of the (non) role of environmental accounting and environmental accountants in organizational change. *Critical Perspectives on Accounting*, 6(3), 211-239.
- Greenwood, R. and Hinings, C.R. (1988). Organizational design types, tracks and the dynamics of strategic change. *Organization Studies*, 9(3), 293-316.
- Greenwood, R., & Hinings, C. R. (1993). Understanding strategic change: The contribution of archetypes. *Academy of Management Journal*, 36(5), 1052-1081.
- Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. R., & Lounsbury, M. (2011). Institutional complexity and organizational responses. *Academy of Management Annals*, 5(1), 317-371.
- Guerrero-Baena, M. D., Castilla-Polo, F., & Rodríguez-Gutiérrez, P. (2024). Motivations for social and environmental reporting in Spanish SMEs: An inductive content analysis. *Business Strategy and the Environment*, 33(5), 4130-4144
- Gunarathne, N., & Lee, K.-H. (2015). Environmental Management Accounting (EMA) for environmental management and organizational change: An eco-control approach. *Journal of Accounting & Organizational Change*, 11(3), 362–383.

- Gurd, B. (2008). Structuration and middle-range theory—A case study of accounting during organizational change from different theoretical perspectives. *Critical Perspectives on Accounting*, 19(4), 523-543.
- Guthrie, J., & Abeysekera, I. (2006). Content analysis of social, environmental reporting: What is new?. *Journal of Human Resource Costing & Accounting*, 10(2), 114–126.
- Guthrie, J., Dumay, J., Michelson, G., & Dodd, T. (2022). Australian modern-day slavery: A social systems perspective. *Journal of Behavioural Economics and Social Systems*, 4(2), 7746.
- Hammersley, M. and Atkinson, P. (2007). *Ethnography: Principles in practice*. Routledge, London and New York.
- Hampton, D. B. (2019). Modern slavery in global supply chains: Can national action plans on business and human rights close the governance gap?. *Business and Human Rights Journal*, 4(2), 239–263.
- Harasheh, M., & Provasi, R. (2023). A need for assurance: Do internal control systems integrate environmental, social, and governance factors?. *Corporate Social Responsibility and Environmental Management*, 30(1), 384–401.
- Harper Ho, V. (2020). Non-financial reporting & corporate governance: Explaining American divergence & its implications for disclosure reform. *Accounting, Economics, and Law: A Convivium*, 10(2), 20180043.
- Hassan, M. K., & Mouakket, S. (2016). ERP and organizational change: A case study examining the implementation of accounting modules. *International Journal of Organizational Analysis*, 24(3), 487-515.
- Hess, D. (2019). The transparency trap: Non-financial disclosure and the responsibility of business to respect human rights. *American Business Law Journal*, 56(1), 5–53.
- Higgins, C., Stubbs, W., Tweedie, D., & McCallum, G. (2019). Journey or toolbox? Integrated reporting and processes of organisational change. *Accounting, Auditing & Accountability Journal*, 32(6), 1662–1689.
- Ho, V.H. (2020). Disclosure overload? Lessons for risk disclosure & ESG reporting reform from the regulation SK concept release. *Villanova Law Review*, 65, 67.
- Hoffmann, V. H., Trautmann, T., & Schneider, M. (2008). A taxonomy for regulatory uncertainty—application to the European Emission Trading Scheme. *Environmental Science & Policy*, 11(8), 712-722.
- Hopwood, A. G. (2009). Accounting and the environment. *Accounting, Organizations and Society*, 34(3-4), 433-439.

Hopwood, A. G., & Miller, P. (Eds.). (1994). *Accounting as social and institutional practice* (Vol. 24). Cambridge University Press.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Hummel, K., & Jobst, D. (2024). An Overview of Corporate Sustainability Reporting Legislation in the European Union. *Accounting in Europe*, 21(3), 320–355.

Ibrahim, A.E.A., & Hussainey, K. (2019). Developing the narrative risk disclosure measurement. *International Review of Financial Analysis*, 64, 126–144.

Jia, J., Munro, L., & Buckby, S. (2016). A finer-grained approach to assessing the “quality” (“quantity” and “richness”) of risk management disclosures. *Managerial Auditing Journal*, 31(8/9), 770–803.

Jones, R.C. (2023). Sustainability reporting and Practitioners’ responsibilities. *The CPA Journal*, 93(7/8), 42–47.

Kapplmüller, S. B., Lehner, O. M., & Greiling, D. (2025). Double materiality at work: pathways to organizational change. *Accounting, Auditing & Accountability Journal*, 38(9), 460-490.

Khan, L. (2023). A framework of critical success factors for implementation of industry 4.0 in aerospace and defense industries. (Doctoral dissertation University of Central Florida Orlando, Florida).

Kortelainen, S. (2022). *Impacts of the corporate sustainability due diligence directive (CSDDD)—a supply chain and competition perspective*. UTUPub.

Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Sage Publications.

Larrinaga, C., & Bebbington, J. (2021). The pre-history of sustainability reporting: a constructivist reading. *Accounting, Auditing & Accountability Journal*, 34(9), 162-181.

Larrinaga, C., Carrasco, F., Caro-González, F.J., Correa, C. and Páez-Sandubete, M.J. (2001). The role of environmental accounting in organizational change—an exploration of Spanish companies. *Accounting, Auditing and Accountability Journal*, 14 (2), 213-239.

Larrinaga, C., Carrasco, F., Correa, C., Llena, F., & Moneva, J. (2002). Accountability and accounting regulation: the case of the Spanish environmental disclosure standard. *European Accounting Review*, 11(4), 723-740.

Laughlin, R. C. (1991). Environmental disturbances and organizational transitions and transformations: Some alternative models. *Organization Studies*, 12(2), 209-232.

- LeBaron, G. (2018). *The global business of forced labour: Report of findings*. SPERI & University of Sheffield: Sheffield, UK.
- Le Roux, C., & Pretorius, M. (2019). Exploring the nexus between integrated reporting and sustainability embeddedness. *Sustainability Accounting, Management and Policy Journal*, 10(5), 822–843.
- Leong, S. and Hazelton, J. (2019). Under what conditions is mandatory disclosure most likely to cause organisational change?. *Accounting, Auditing and Accountability Journal*, 32(3), 811-835.
- Levy, A. (1986). Second-order planned change: Definition and conceptualization. *Organizational Dynamics*, 15(1), 5-23.
- Luque-Vilchez, M., & Larrinaga, C. (2016). Reporting models do not translate well: Failing to regulate CSR reporting in Spain. *Social and Environmental Accountability Journal*, 36(1), 56-75.
- Luque-Vilchez, M., Husillos, J., & Larrinaga, C. (2024). The construction of the normative persuasion of social and environmental reporting regulation. *Sustainability Accounting, Management and Policy Journal*, 15(7), 34-62.
- Madhani, P. M. (2010). Resource based view (RBV) of competitive advantage. *Journal of Human Resource*, 6(1), 7-18.
- Mai, N., Vourvachis, P., & Grubnic, S. (2023). The impact of the UK's modern slavery act (2015) on the disclosure of FTSE 100 companies. *The British Accounting Review*, 55(3), 101115.
- Martínez-Ferrero, J., & García-Sánchez, I.M. (2017). Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review*, 26(1), 102–118.
- Masquefa, B., Gallhofer, S., & Haslam, J. (2017). Developing appreciation of micro-organizational processes of accounting change and indicating pathways to more 'Enabling Accounting' in a micro-organizational domain of research and development. *Critical Perspectives on Accounting*, 44, 59-82.
- McNally, M. A., & Maroun, W. (2018). It is not always bad news: Illustrating the potential of integrated reporting using a case study in the eco-tourism industry. *Accounting, Auditing & Accountability Journal*, 31(5), 1319–1348.
- Michelon, G., Cooper, S., Torea, N. G., Chen, X., & Guo, Z. (2024). Materiality assessments in corporate sustainability and financial reporting: Connectivity, practices, processes, and challenges. available at: [Link to a pdf of the cited article](#).

Miller, D., Friesen, P., 1982. *Organizations: A Quantum View*. Prentice Hall, Englewood Cliffs, NJ.

Miller, W. L. and Crabtree. B. F. (1999). *Overview of Qualitative Research Methods*, in *Doing Qualitative Research*, edited by B. F. Crabtree and W. L. Miller, Vol. 3 (pp. 3-33). Thousand Oaks, CA: Sage Publications, London.

Mishra, B.K., Rolland, E., Satpathy, A., & Moore, M. (2019). A framework for enterprise risk identification and management: The resource-based view. *Managerial Auditing Journal*, 34(2), 162–188.

Mitchell, C., Curtis, A., & Davidson, P. (2012). Can triple bottom line reporting become a cycle for “double loop” learning and radical change?. *Accounting, Auditing & Accountability Journal*, 25(6), 1048–1068.

Muller, E., & Doloreux, D. (2009). What we should know about knowledge-intensive business services. *Technology in Society*, 31(1), 64–72.

Narayanan, V., & Adams, C. A. (2017). Transformative change towards sustainability: The interaction between organisational discourses and organisational practices. *Accounting and Business Research*, 47(3), 344–368.

Narayanan, V., & Boyce, G. (2019). Exploring the transformative potential of management control systems in organisational change towards sustainability. *Accounting, Auditing & Accountability Journal*, 32(5), 1210–1239.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16(1), 145-179.

Palea, V., & Drogo, F. (2020). Carbon emissions and the cost of debt in the eurozone: The role of public policies, climate-related disclosure and corporate governance. *Business Strategy and the Environment*, 29(8), 2953–2972.

Passetti, E., Cinquini, L., & Tenucci, A. (2018). Implementing internal environmental management and voluntary environmental disclosure: Does organisational change happen. *Accounting, Auditing & Accountability Journal*, 31(4), 1145–1173.

Power, M. (2004). The risk management of everything. *The Journal of Risk Finance*, 5(3), 58–65.

Principale, S. (2023). The Current Scenario on Sustainable Corporate Governance: Theoretical and Practical Evidence. In *Fostering Sustainability in Corporate Governance: Analysis of the EU Sustainable Corporate Governance and Due Diligence Directives* (pp. 43-62). Cham: Springer Nature Switzerland.

Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management*, 8(3), 238-264.

Redondo Alamillos, R., & deMariz, F.(2022). How can European regulation on ESG impact business globally?. *Journal of Risk and Financial Management*,15(7), 291.

Reppmann, M., Maibaum, F., Edinger-Schons, L. M., & Foege, J. N. (2025). Talk, but don't talk too much: How corporate sustainability communication evokes stepwise organizational change. *Journal of Business Research*, 189, 115188.

Robb, F. F. (1988). Morphostasis and morphogenesis: contexts of participative design inquiry in the design of systems of learning and human development'. Unpublished discussion paper, University of Edinburgh.

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F. S., Lambin, E., ... & Foley, J. (2009). Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society*, 14(2).

Rodríguez-Gutiérrez, P., Correa, C., & Larrinaga, C. (2019). Is integrated reporting transformative? An exploratory study of non-financial reporting archetypes. *Sustainability Accounting, Management and Policy Journal*, 10(3), 617-644.

Rose, A.M. (2020). *A response to calls for SEC-mandated ESG disclosure*. Washington University Law Review, 98, 1821.

Schaper, S., & Pollach, I. (2021). Modern slavery statements: From regulation to substantive supply chain reporting. *Journal of Cleaner Production*, 313, 127872.

Semenova, N. (2021). Management control systems in response to social and environmental risk in large Nordic companies. *International Journal of Corporate Social Responsibility*, 6, 1–11.

Singh, A., Patel, R., & Singh, H. (2022). Recalibration of priorities: Investor preference and Russia-Ukraine conflict. *Finance Research Letters*, 50, 103294.

Smith, K.K. (1982). *Philosophical problems in thinking about organizational change' in Change in organizations*. Paul S. Goodman et al. (eds.), 316-374. San Francisco: Jossey-Bass.

Soriano S., Luque-Vílchez M., Griffiths P., Perera L. (2026). Artificial Intelligence and the Transformation of Sustainability Accounting and Assurance: Enablers, Barriers, and Conceptual Drivers in Olsen, C. (Ed.). *Artificial intelligence in sustainability accounting and assurance*. Routledge, Taylor and Francis Group.

Spence, C. (2009). Social accounting's emancipatory potential: A Gramscian critique. *Critical Perspectives on Accounting*, 20(2), 205-227.

- Steffen, W., Persson, Å., Deutsch, L., Zalasiewicz, J., Williams, M., Richardson, K., ... & Svedin, U. (2011). The Anthropocene: From global change to planetary stewardship. *Ambio*, 40(7), 739-761.
- Tregidga, H., Milne, M., & Kearins, K. (2014). (Re) presenting 'sustainable organizations'. *Accounting, Organizations and Society*, 39(6), 477-494.
- Truant, E., Corazza, L., & Scagnelli, S.D. (2017). Sustainability and risk disclosure: An exploratory study on sustainability reports. *Sustainability*, 9(4), 636.
- Tsang, A., Frost, T., & Cao, H. (2022). Environmental, social, and governance (ESG) disclosure: A literature review. *The British Accounting Review*, 55, 101149.
- Unluer, S. (2012). Being an insider researcher while conducting case study research. *The Qualitative Report*, 17(29), 1–14.
- UNWCED (1987). *Report of the world commission on environment and development: Our common future*. Oxford: Oxford University Press.
- Vinnari, E., & Laine, M. (2013). Just a passing fad? The diffusion and decline of environmental reporting in the Finnish water sector. *Accounting, Auditing & Accountability Journal*, 26(7), 1107–1134.
- Walk Free Foundation. (2023). The global slavery index 2023. Walk Free Foundation.
- Weick, K.E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, 21(1), 1-19
- Wengraf, T. (2001). *Qualitative Research Interviewing: Biographic Narrative and Semi-Structured Methods*. Sage Publications, London.
- Xhindole, C., Tarquinio, L., & Sierra-García, L. (2025). Climate change and Task Force on Climate-related Financial Disclosures (TCFD) reports. A comparison between Italy and Spain. *Journal of Accounting & Organizational Change*, 21(7), 1-28.
- Yosifova, D., & Petrova-Kirova, M. (2022). The new EU corporate sustainability reporting framework in the context of GRI standards. In *Economic and social development: Book of proceedings* (pp. 85–95).
- Zioło, M., Bąk, I., & Spoz, A. (2023). Incorporating ESG risk in companies' business models: State of research and energy sector case studies. *Energies*, 16(4), 1809.
- Zucker, L.G. (1987). Institutional theories of organization. *Annual Review of Sociology*, 13(1), 443–464.

## Webliography

2025/0045(COD): <https://data.consilium.europa.eu/doc/document/ST-10276-2025-INIT/en/pdf>

COM(2025)81: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025PC0081>

Common Position 2008/944/CFSP: <https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:02008E0944-20190917&from=IT>

DefenceNews, 2023: <https://people.defensenews.com/top-100/>

Deloitte, 2023:

<https://www.deloitte.com/global/en/Industries/defense-security-justice/analysis/gx-aerospace-and-defense-industry-outlook.html>

Deloitte, 2025: <https://www.deloitte.com/us/en/insights/industry/aerospace-defense/aerospace-and-defense-industry-outlook/2025.html?utm>

Draghi, M. (2025): [https://commission.europa.eu/topics/competitiveness/draghi-report\\_en](https://commission.europa.eu/topics/competitiveness/draghi-report_en)

EFRAG, 2024:

[/https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFrag%20IG%202%20Value%20Chain\\_final.pdf](https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFrag%20IG%202%20Value%20Chain_final.pdf)

EFRAG, 2024a:

[https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment\\_final.pdf](https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment_final.pdf)

EFRAG, 2025: <https://www.efrag.org/en/projects/esrs-implementation-guidance-documents>.

EFRAG, 2025: <https://www.efrag.org/en/sustainability-reporting/esrs-workstreams/interoperability>

ESRS: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=intcom:C%282023%295303>

EU 2019/2088: <https://eur-lex.europa.eu/eli/reg/2019/2088/oj/eng>

EU 2020/1818: [https://eur-lex.europa.eu/eli/reg\\_del/2020/1818/oj](https://eur-lex.europa.eu/eli/reg_del/2020/1818/oj)

EU 2020/852: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852>

EU 2022/2464: <https://eur-lex.europa.eu/eli/dir/2022/2464/oj/eng>

EU 2024/1760: <https://eur-lex.europa.eu/eli/dir/2024/1760/oj/eng>

EU 2025/794: <https://eur-lex.europa.eu/eli/dir/2025/794/oj>

European Commission, 2020: [https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth\\_en](https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth_en)

European Commission, 2025a: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/story-von-der-leyen-commission/european-green-deal\\_en?prefLang=it](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/story-von-der-leyen-commission/european-green-deal_en?prefLang=it)

European Commission, 2025b: [https://commission.europa.eu/law/law-making-process/better-regulation/simplification-and-implementation/simplification\\_en?utm](https://commission.europa.eu/law/law-making-process/better-regulation/simplification-and-implementation/simplification_en?utm)

European Commission, 2025c:  
[https://commission.europa.eu/topics/competitiveness/competitiveness-compass\\_en](https://commission.europa.eu/topics/competitiveness/competitiveness-compass_en)

European Commission, 2025d:  
[https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_25\\_615](https://ec.europa.eu/commission/presscorner/detail/en/qanda_25_615)

European Commission, 2025e: [https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/enforcement-and-infringements-banking-and-finance-law/monitoring-banking-and-finance-directives/corporate-sustainability-reporting-directive\\_en](https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/enforcement-and-infringements-banking-and-finance-law/monitoring-banking-and-finance-directives/corporate-sustainability-reporting-directive_en)

European Commission, 2025f: [https://defence-industry-space.ec.europa.eu/document/download/b2bcc9a0-5259-4543-9e1c-3af1dde8fbec\\_en?filename=Defence-Simplification-Omnibus.pdf&utm](https://defence-industry-space.ec.europa.eu/document/download/b2bcc9a0-5259-4543-9e1c-3af1dde8fbec_en?filename=Defence-Simplification-Omnibus.pdf&utm)

European Commission, 2025g: [https://defence-industry-space.ec.europa.eu/document/download/ac79ebc7-d2f1-4e7a-a79c-71a06a5fdbf8\\_en?filename=notice-application-sustainable-finance-framework-and-corporate-sustainability.pdf](https://defence-industry-space.ec.europa.eu/document/download/ac79ebc7-d2f1-4e7a-a79c-71a06a5fdbf8_en?filename=notice-application-sustainable-finance-framework-and-corporate-sustainability.pdf)

European Consilium, 2025: <https://www.consilium.europa.eu/it/policies/european-green-deal/#what>

European Council, 2025: <https://www.consilium.europa.eu/en/policies/defence-funding/?utm>

Governance and accountability institute, 2025: <https://www.ga-institute.com/nc/storage/press-releases/article/ga-institutes-new-research-shows-2024-sustainability-reporting-rose-to-record-levels-as-sp-500r-c/?utm>

GRI, 2022: [https://globalcompact.at/wp-content/uploads/2022/09/gri-linkagesdg\\_gristandards-updatemay2022-final.pdf](https://globalcompact.at/wp-content/uploads/2022/09/gri-linkagesdg_gristandards-updatemay2022-final.pdf)

GRI-ESRS: <https://www.globalreporting.org/media/qzmoeixv/esrs-gri-interopability-index-november-2024.pdf>

GRI-RLI (2019): [https://www.globalreporting.org/media/r1ydr40k/rli-gri\\_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf](https://www.globalreporting.org/media/r1ydr40k/rli-gri_advancing-modern-slavery-reporting-to-meet-stakeholder-expectations.pdf), downloaded 01.01.24.

Information on the Omnibus I Package see:  
[https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_25\\_615](https://ec.europa.eu/commission/presscorner/detail/en/qanda_25_615)

ISSB standards: <https://www.ifrs.org/supporting-implementation/supporting-materials-for-ifrs-sustainability-disclosure-standards/>

Issue paper n.5: [https://defence-industry-space.ec.europa.eu/document/download/bebd3d2f-bd0a-46f5-ae2-6ae586dba3ad\\_en?filename=EDIS%20Issue%20Paper%205.pdf](https://defence-industry-space.ec.europa.eu/document/download/bebd3d2f-bd0a-46f5-ae2-6ae586dba3ad_en?filename=EDIS%20Issue%20Paper%205.pdf)

KPMG, 2024: <https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2024/11/the-move-to-mandatory-reporting-report.pdf?utm>

Meyer, N. (2024): <https://corporatejustice.org/news/reaction-csddd-endorsement-brings-us-0-05-closer-to-corporate-justice/>

Morning Star, 2025: <https://global.morningstar.com/it/investimenti-sostenibili/come-i-fondi-esg-hanno-imparato-ad-amare-le-armi>

SASB, 2023: <https://sasb.org/standards/materiality-finder/>

SDG 8: [https://sdgs.un.org/goals/goal8#targets\\_and\\_indicators](https://sdgs.un.org/goals/goal8#targets_and_indicators)

Sustainalytics, 2025: <https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/eu-esg-funds--exposure-to-defense-continues-to-increase?utm>

United Nations Agenda for Sustainable Development:  
<http://www.un.org/sustainabledevelopment/>

UN SDGs: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Yahoo finance, 2023: <https://finance.yahoo.com/news/12-best-aerospace-defense-stocks155436380.html>

## **APPENDIX 1: Contextual interviews guides**

### **INTERVIEW GUIDE – E01**

#### **INTRODUCTION**

- Could you explain your professional background considering your experience in sustainability-related accounting regulation, and especially could you describe your role within the Project Task Force on ESRS of EFRAG and your involvement in the ESRS development process?
- Do you observe differences between economic sectors regarding their readiness for or attitude towards the Directive?

#### **MAIN BODY OF THE INTERVIEW**

##### **Regulatory Design and Intentions**

- From your perspective, what are the primary ambitions behind the CSRD and ESRS? (Battle of power between different standard setters)
- How do you assess the regulatory evolution from NFRD to CSRD in terms of regulatory ambition and scope?
- In what ways do you believe the CSRD has been shaped by political, institutional, and stakeholder pressures during its development? And the Omnibus proposal? (stakeholders group considered during the standard setting activity)
- In relation to the latter, what do you think is its real intention: simplification, alignment with IFRS S1/S2 or dilution of the initial ambition?
- What risks would Omnibus' implementation imply, particularly in relation to the double materiality pillar and the quality of disclosures?

##### **Knowledge of the CSRD**

- To what extent do you see the CSRD as a potentially transformative regulation for companies' sustainability accounting practices? (structural and cultural change)
- What elements of the CSRD do you see as particularly promising for generating positive organisational impact?
- Which internal actors tend to lead or resist these types of transformations within organisations?
- To what extent do you believe that CSRD can truly integrate sustainability into a business strategy, beyond the area of compliance?
- Which are the areas of the current standards or reporting architecture that you believe require future reform or refinement or better support throughout the definition of implementation guidance?

##### **Change dynamics and sustainability**

- Do you believe that compliance with CSRD requirements brings benefits to organisations that go beyond mere compliance?
- Do you observe any limitations on companies' ability to comply with the CSRD requirements?

- What are the main risks and opportunities in this initial implementation phase of the CSRD and ESRS?

### **Social and environmental accounting and its integration**

- Do you think the CSRD promotes the connectivity between sustainability and financial reporting?

### **Materiality**

- Do you see the double materiality approach as contributing to deeper change in organisations? Why? (dynamic materiality)
- Do you think that the introduction of a double materiality approach will help companies to prioritise substance over form in their sustainability accounting processes?
- What are the main challenges in operationalising the double materiality approach?
- Can the double materiality approach come into tension with financial or shareholder interests? If so, how would you manage this tension?

### **INTEROPERABILITY**

- How do you see the interoperability between the different standards (GRI, ESRS, IFRS)? (GRI interoperability index) More precisely what is your assessment of the balance between international interoperability and European regulatory autonomy in this context?

### **CLOSING**

- What is the first step you would suggest companies take to implement the new regulatory requirements?
- What challenges do you foresee for companies—especially SMEs—in operationalizing the ESRS? What capabilities should they develop to meet CSRD requirements in a useful and strategic way?
- Are there particular risks of unintended consequences with the CSRD? (i.e. value chain and SMEs)
- Do you believe that the CSRD can become a catalyst for accounting innovation, or do you fear that it will remain a bureaucratic compliance exercise? What would be your advice to future standard-setters on ensuring sustainability reporting remains meaningful and not overly bureaucratic?
- What organisational effects do you think will be evident in the next 3-5 years because of this regulation?
- What future research questions do you see as particularly relevant to the field of accounting and sustainability in this new regulatory context?

## **INTERVIEW GUIDE – E02**

### **INTRODUCTION**

- Could you please explain what you have been working on in recent years, based on your professional profile and experience in accounting regulations related to sustainability?

- Considering that, could you explain your opinion regarding the CSRD's potential to generate organisational change in companies?

## **MAIN BODY OF THE INTERVIEW**

### **Theoretical Framework**

- In light of Laughlin's (1991) framework of organisational change, how would you categorise the CSRD: as a disturbance or a design archetype?
- Are you familiar with Oliver's (1991) framework? If so, how could it be applied to the current situation?
- Taking into account the company size factor, how do you think the strategic responses might differ?
- Could you explain which internal stakeholders tend to resist or facilitate certain types of organisational change? Who are the key figures involved in distinguishing between resistance and other types of strategic response?
- Could you describe the strategies adopted by different stakeholders in relation to regulatory compliance or non-compliance? (Our main interest lies in firms' responses, which may be influenced by the actions and expectations of other actors. Even when examining institutional background factors—such as regulatory context and control mechanisms—we focus on how companies react, while recognising that actors such as policymakers and auditors play a central role in shaping these conditions and thus act as key predictive factors).

### **Regulatory Impact**

- How do you perceive the institutional context of EU countries? (uncertainty)
- Do you think that organisations benefit from complying with the CSRD beyond mere compliance?
- Do you foresee any limitations or difficulties for companies in complying with the Directive?
- In your opinion, what are the main risks and opportunities in this initial implementation phase of the CSRD and ESRS?
- Do you think the CSRD will promote connectivity between sustainability and financial reporting? Do you think it will achieve what integrated reporting failed to do?

### **A&D Sector**

- What is your view on the matter of connectivity between financial and sustainability information at the sector level, particularly in the A&D sector?
- Given the characteristics of the A&D sector, do you see the possibility of different types of strategic response?
- What are the main limitations and difficulties that companies in the A&D sector might face when trying to comply with the Directive's requirements?
- In your opinion, what are the main risks and opportunities for the initial implementation of the CSRD and the ESRS in the A&D sector?
- Do you think double materiality in the A&D sector could lead to significant organisational change?

- In relation to the Omnibus proposal, what impact do you think it could have on this sector?

### **Interoperability**

- How do you see interoperability between different standards, and what role do you think it plays in shaping organisational change?

### **CLOSING**

- Do you perceive the Directive (CSRD) as an additional bureaucratic requirement, or as an accounting innovation?
- When do you think, we will start to see the first effects of this Directive on companies?

## **INTERVIEW GUIDE – E03**

### **INTRODUCTION**

- Could you explain your role in the company, how long you have held it, and your professional background?
- When was your company founded and when did it begin to address sustainability issues?
- Does your company currently have a sustainability or environmental team? If so, does this team report to the CFO?
- Is there a sustainability committee within the board of directors?
- Does your company publish sustainability reports? Since when? What type of report (e.g., GRI, Integrated Reporting)?
- Was your company affected by the Spanish Law 11/2018 transposing Directive 2014/91/EU (NFRD) and by CSRD?
- How has the European Green Deal influenced your approach to sustainability? Did the company consider some new aspects of sustainability accounting thanks to the European regulations? As a follow-up, we would like to explore:
  1. To what extent do you see the CSRD not only as a reporting directive but also as a management directive—in other words, has it triggered internal changes in processes, systems, or strategic thinking?
  2. How has the EU Taxonomy influenced the way your company assesses, categorizes, or reports its sustainable activities?
  3. As a strategic provider to xxx (competitor of Alpha S.p.a.), have you noticed any indirect effects—for example, increased expectations or cascading requirements throughout the value chain—linked to sustainability reporting and compliance?

### **MAIN BODY OF THE INTERVIEW**

#### **Organisational culture and context**

- What would you say is your company's most distinctive characteristic?
- How would you define the current mission and vision of your company?

- What are the main strategic challenges your company is currently facing? And those of the aerospace and defense sector more broadly, considering the logic of IROs?

#### **Change dynamics and sustainability**

- How was social and environmental accounting introduced in your company? Was it driven by regulation, market pressures, or internal leadership?
- What have been the main advantages and barriers in its implementation?
- Could you share specific examples of challenges (time, resources, indicators, training)?
- What new aspects have emerged following the implementation of the CSRD?
- Has your company had to make adjustments in management systems or organisational structure?

#### **Social and environmental accounting and its integration**

- What role has your management area played in the development of social and environmental accounting?
- Do you believe your company's mission or culture has changed due to this focus?
- How does sustainability accounting influence strategic decision-making?
- What have been the key factors enabling the introduction of this accounting approach in your organisation?

#### **Materiality**

- How does your company define what is material?
- Does your company use a materiality matrix? Since when? If so, how is the matrix related to the preparation of the reporting?
- What adjustments would be/were necessary to implement the double materiality approach?
- What were the main challenges in adopting this approach?
- How do you perceive the interoperability between different standards (GRI, ESRS, IFRS)?
- Do you believe the CSRD fosters connectivity between sustainability and financial reporting?

#### **CLOSING**

- What next steps do you foresee your company taking regarding social and environmental accounting?
- Do you see this approach as a real transformation or more of a passing trend?
- Is there anything you would like to add that we haven't covered but you think is relevant?
- Could you recommend other key individuals at your company or in the sector who you believe would be valuable to interview?
- In your view, how does the uncertainty surrounding the CSRD, its implementation, or the broader sustainability agenda ("the omnibus") influence your organisation's ability to plan or commit to long-term sustainability strategies?

---

## **INTERVIEW GUIDE– E04**

### **INTRODUCTION**

- Could you explain your professional background as an experienced auditor and expert involved in GRI working groups?
- Have you ever worked with a company in the aerospace and defence sector? If so, what do you consider to be the main strategic challenges currently facing this sector, considering the integration of material impacts, risks, and opportunities (IROs) as outlined by the CSRD?

### **MAIN BODY OF THE INTERVIEW**

#### **Knowledge of the CSRD**

- Are you aware of the new requirements introduced by the CSRD?
- Which aspects of the CSRD do you think are most relevant to sustainability accounting?
- Do you think that the reform proposed by the CSRD is important and necessary?
- Do you think that auditors' views have been taken into account in the design of these new requirements?
- Do you think that CSRD can trigger a process of organisational change within companies?
- Do you consider the CSRD as a potential driver of structural or cultural change within companies?
- In your view, how does the uncertainty surrounding the CSRD, its implementation, or the broader sustainability agenda (as sometimes referred to in discussions as “the omnibus”) influence an organisation’s ability to plan or commit to long-term sustainability strategies?

#### **Assurance**

- Has the CSRD encouraged (or will it encourage) changes in the way auditors work?
- How could auditors either support or hinder the transformation the CSRD aims to bring about?
- What do you think about the CSRD's call for a phased move from limited to reasonable assurance in sustainability reporting and the likely removal of this requirement under the Omnibus? More precisely, does the timeline seem feasible and what internal changes would be required to meet the new requirements?

- Do you think there is a need for a business model change in the assurance of sustainability reporting/assurance in general? If so, what do you see as the main changes needed and the main challenges?

#### **Change dynamics and sustainability**

- Do you believe that compliance with CSRD requirements brings benefits to organisations that go beyond mere compliance?
- Do you observe any limitations on companies' ability to comply with the CSRD requirements?

#### **Social and environmental accounting and its integration**

- Do you think the CSRD promotes the connectivity between sustainability and financial reporting?
- Do you think that the CSRD could facilitate the introduction of The Fourth Financial Statement?

#### **Materiality**

- What are your views on the introduction of a double materiality approach, which is one of the main pillars of CSRD?
- Do you think that the introduction of a double materiality approach will help companies to prioritise substance over form in their sustainability accounting processes?
- What adjustments would be necessary for the companies to implement the double materiality approach?
- What are the main challenges in implementing the double materiality approach?
- Do you think that the CSRD has successfully developed the quantitative aspect of materiality? (Quantitative requirements)

#### **Interoperability**

- How do you see the interoperability between the different standards (GRI, ESRS, IFRS)? (GRI interoperability index) More precisely how does the CSRD align or contrast with existing frameworks like GRI or IFRS S?

#### **CLOSING**

- What is the first step you would suggest companies take to implement the new regulatory requirements?
- What risks could assurance providers face if they do not adapt to the evolving regulatory and technological environment?
- Do you see this approach to sustainability as a real transformation or more of a passing trend?
- Is there anything you would like to add that we haven't covered but you think is relevant?

---

## **INTERVIEW GUIDE– E05**

### **INTRODUCTION**

- In light of your professional experience, what do you think the main objectives of the CSRD are?

## **MAIN BODY OF THE INTERVIEW**

### **Knowledge of the CSRD**

- In terms of ambition, how would you describe the regulatory evolution from the 2014 Directive to the new CSRD?
- During its development, do you think the Directive was influenced by political and institutional pressure from different stakeholders?
- What do you think lies behind the Omnibus proposal, and what do you see as its underlying intention?

### **Regulatory impact**

- How much potential do you think the CSRD Directive has to transform accounting practices and corporate sustainability?
- In terms of generating an organisational impact, which elements of the Directive do you see as particularly promising, if any?

### **A&D sector**

- Which internal company actors are likely to resist or promote transformation in sensitive sectors such as A&D?
- To what extent do you think the Directive will integrate sustainability into the business strategy of the A&D sector?
- Do you think that complying with the requirements of the Directive brings organisations in the A&D sector benefits beyond mere regulatory compliance?
- Have you noticed any limitations in companies' capacity to comply with the Directive's requirements in the A&D sector?
- What are, in your opinion, the main risks and opportunities for the A&D sector during the initial implementation phase of the Standards?
- Do you think the Directive could encourage companies in this sector to integrate sustainability and financial aspects?

### **Double materiality**

- In general, and specifically in the A&D sector, do you think that the double materiality contributes to organisational change within companies?

### **Interoperability**

- What is your view on interoperability between different standards, such as the GRI, European and U.S. standards?

## **CLOSING**

- What unintended risks or consequences might the Directive entail?
- What effect do you think this Directive will have on organisations within three to five years?
- What impact do you think the Omnibus proposal will have on smaller companies? How do you think these companies will adapt their strategies?
- Do you think complying with the Directive could improve access to public procurement?
- In this new regulatory context, what research questions are worth considering?

---

## **INTERVIEW GUIDE– E06**

### **INTRODUCTION**

- Could you briefly describe your professional background and your experience in the A&D sector?

### **CSRD And Organisational Change**

- To what extent does the uncertainty surrounding the application of the CSRD (“Omnibus,” timing, evolving requirements) affect companies’ ability to plan long-term sustainable strategies?

### **MAIN BODY OF THE INTERVIEW**

#### **Assurance**

- In your opinion, will the transition from limited assurance to reasonable assurance envisaged by the CSRD (likely removed by the Omnibus), and already implemented by Alpha S.p.A. for some environmental KPIs, be maintained and/or expanded?
- Do you think that potential social certifications (if any exist) could strengthen the credibility of sustainability reports in A&D companies?

#### **Materiality**

- What is your view on the introduction of double materiality and the challenges of its implementation, particularly in the A&D sector?

#### **Final Considerations**

- What do you consider the most urgent challenge for A&D companies in demonstrating their sustainability credibility beyond mere regulatory compliance?
- In your opinion, what could be the A&D sector’s most important contribution to the sustainability debate and to the future development of European regulations?
- Do you believe that the CSRD and subsequent simplifications could drive these companies towards genuine organisational and cultural change, or more towards formal compliance?
- What role do you think auditors can play in helping A&D companies transform the CSRD from a mere regulatory obligation into an opportunity for real change?

## **APPENDIX 2: Case study interviews guides**

### **INTERVIEW GUIDE– P01**

#### **INTRODUCTION**

- Could you describe your role within the CSS team and your main responsibilities?
- How long have you been involved in this area, and how has the integrated reporting process evolved over time?

#### **MAIN BODY OF THE INTERVIEW**

##### **Evolution of Sustainability and Integrated Reporting**

- How has Alpha's commitment to sustainability developed historically? What have been the main milestones?
- How does the CSS function interact with other business areas (finance, risk management, operations, compliance, communication) in general, and specifically regarding sustainability reporting?
- How many organisational units contribute to the preparation of the Integrated Report with ESG data, and how is the information flow organized among these units? What changes have occurred since the introduction of the CSRD?
- How would you describe the level of coordination/alignment among these functions in preparing sustainability information? What changes have occurred since the introduction of the CSRD?

##### **Governance and Decision-Making Processes**

- How are decisions made regarding the information to be included in the Integrated Report? Who participates in these decisions?
- How do reporting frameworks such as GRI, ESRS, ISSB standards, or the Integrated Reporting Framework influence the selection of content?
- Which internal rules and/or external regulations guide the identification and management of classified or sensitive information? With reference to Integrated Reporting, are there internal procedures for sensitive or defense-related information? Could you provide an example?
- How is the balance between transparency and confidentiality managed in reporting activities related to defense?
- How are external stakeholder expectations (investors, ESG analysts, media) managed when they request information on sensitive topics?

##### **Cross-Functional Collaboration and Cultural Change**

- With which functions does the CSS team collaborate for the collection of ESG data (e.g., risk management, strategy, communication, operations)?
- How do these functions contribute to materiality assessments or topic selection?
- How are different perspectives—industrial/business, financial performance, and socio-environmental (external impacts)—reconciled in the integrated reporting process?

- In your opinion, has the integration of sustainability into reporting led to organisational and/or cultural changes in behavior within the company (across the involved organisational units) since the introduction of the CSRD?

If yes, and within regulatory boundaries, what types of responses have you observed (or if multiple responses, please describe and indicate their prioritization):

1. Orientation towards mere compliance with new legislative requirements.
  2. Orientation towards compromise between business objectives and legislative requirements.
  3. Orientation towards seeking benefits/advantages from implementing the new regulation.
  4. Orientation towards minimizing changes from previous activities, including through active interaction with the regulator (EFRAG working groups, etc.).
- Would you describe the observed changes as incremental/evolutionary (medium- to long-term) or as a deeper reorientation? Are they related to process/structural changes or to corporate values?

### **Sensitive Information and Communication Strategy**

- Is there a formal review/approval process for disclosures of sensitive information? If so, who participates in it?
- Do you think that the CSRD or the ESRS have made it more difficult to balance transparency and confidentiality?
- How does the CSS team collaborate with legal, compliance, or communication functions to manage this balance?

### **Future Perspectives and Regulatory Changes**

- Do you think the increased focus on ESG transparency will change the way the defense industry communicates its impacts?
- How is Alpha S.p.a. experiencing the Omnibus Package and the simplification of the ESRS? Internally, are these changes perceived more as an opportunity for simplification or as an additional source of uncertainty?
- Do you think the ESRS simplification process could change the level of detail or the nature of the information the company intends to disclose?

### **Conclusions**

- Is there anything else you consider essential for understanding the role of integrated reporting in this transformation?

## **INTERVIEW GUIDE– P02**

### **INTRODUCTION**

- Could you briefly describe your current role at Alpha S.p.a. and your main responsibilities related to risk management and sustainability?
- How long have you been involved in these topics, and how has your engagement in risk management processes evolved over time?

- When and in what way did sustainability start to be integrated into decision-making and risk management processes at Alpha S.p.a.?
- In your opinion, what has been the main impact of the introduction of the CSRD and the concept of double materiality on the activities of your team or area?

## **MAIN BODY OF THE INTERVIEW**

### **Evolution of ERM Processes and Introduction of Double Materiality**

- Has Alpha's ERM process been modified to include the principles of impact materiality and financial materiality? How has the identification and assessment of external impacts changed the company's risk management system?
- If yes, could you explain how the process of identifying, assessing, and prioritizing risks has been adapted in relation to double materiality? Who approves the final conclusions of the materiality analysis?
- How do you define financial materiality, and what criteria/thresholds determine it?
- How are ESG topics and their related impacts integrated into the risk management system? Have there been changes in analysis methodologies or materiality criteria used to link sustainability risks to financial and economic performance?
- Which corporate functions have been involved in this ERM revision process (e.g., sustainability, compliance, strategy, finance)?
- How has coordination among these different functions been managed?
- Has the introduction of financial materiality of ESG risks required updates to internal procedures or responsibilities related to risk management?
- Have new tools, indicators, or information flows been implemented to connect sustainability risks to financial impacts?
- With reference to the activities carried out by your team, what approach has been introduced at Alpha for the assurance of double materiality (internal audit, external verification)?

### **Challenges and Enablers of Change**

- What have been the main difficulties in modifying ERM procedures to include double materiality (e.g., lack of data, corporate culture, training, resources)?
- Which factors have facilitated the change (leadership, legislative requirements, external stakeholder expectations, internal expertise)?
- Do you believe that the introduction of double materiality has changed the way Alpha S.p.a. perceives and manages risk, including at a strategic level? If so, which decisions have been influenced by the results of financial materiality (e.g., capital investments, customer and supplier conditions, insurance/financial coverage, provisions)? Could you provide concrete examples?
- In your opinion, how has collaboration between risk functions and sustainability functions changed since the introduction of the CSRD?

### **Reflections and Future Perspectives**

- Looking ahead, what further developments or improvements do you consider necessary to consolidate the integration between ERM and double materiality?

- Have the CSRD and ESRS facilitated a closer connection between reporting and risk management?
- Has the integration of financial materiality of ESG impacts been perceived as an opportunity for managerial improvement? If so, in what way?
- In your view, do the Omnibus package and the simplifications of the CSRD/ESRS represent a useful simplification, or do they introduce uncertainty? What adjustments are you planning in response to these changes?
- Is there anything else you consider important to add in order to better understand the process of introducing financial materiality?

---

## **INTERVIEW GUIDE– P03 and P04**

### **INTRODUCTION**

- Could you describe your role within the Sustainability unit and how long you have been dealing with sustainability topics, reporting, and/or materiality assessment?
- How is the Sustainability unit currently organized at Alpha? Are there specialized units or areas (e.g., reporting, ESG strategy, stakeholder engagement, compliance, investor relations)? How does it interact with other corporate functions? (see organisational chart)
- How does the Sustainability unit fit into the overall corporate governance (reporting lines, participation in committees, particularly the ESG committee, interactions with other functions such as Risk or Finance)?
- Since when has there been a structured materiality process (impact and/or financial), and how has it evolved in light of new European regulations (CSRD and ESRS)?

### **MAIN BODY OF THE INTERVIEW**

#### **Analysis of the Double Materiality Process**

##### **Corporate Sustainability Processes and CSRD Requirements**

- Before the CSRD, how did Alpha approach sustainability? Was it primarily as a reporting requirement or as a lever for change (processes, governance, strategy)?
- How has Alpha interpreted the CSRD requirements: mainly as a reporting obligation or as a lever for change (processes, governance, strategy)? Are there general guidelines? Which functions or bodies initiated the analysis of CSRD requirements? Could you provide examples?
- What initiatives or changes have been undertaken (e.g., redesign of internal controls, integration/modification of performance KPIs also in governance committee reporting, adjustment of incentives, integration into strategic planning)? Were the changes implemented solely for compliance, or did they go beyond?

### **Processes and Tools for Impact Materiality**

- Could you describe how the double materiality assessment process is currently conducted at Alpha? Who are the main stakeholders considered in the impact materiality assessment?
- Following the introduction of double materiality under the CSRD, have you revised the methods for collecting and analyzing environmental and social impact information? Has the Sustainability unit issued guidelines, operational instructions, or internal procedures to standardize these activities?
  - a. If yes, how are they structured (e.g., timing, responsibilities, operational phases)?
  - b. Have they been formally approved (by which bodies?) or directly integrated into corporate management systems?
- Do these internal procedures (if issued by the Sustainability unit) also apply to the assessment and measurement of the financial materiality of ESG topics?
- Have new tools or methodologies been introduced to make the impact materiality assessment more consistent or integrated with the ERM process?
- How are sustainability drivers that feed the materiality matrix and the ERM system identified and updated?

### **Integration between Sustainability and Risk Management**

- Have structured moments of comparison or alignment been established (e.g., cross-functional tables, committees, validation sessions)?
- In your opinion, has the introduction of financial materiality influenced how the Sustainability unit currently conducts impact materiality?
- Have there been adjustments in timing, evaluation criteria, or prioritization scales to make the two processes (impact and financial) coherent and integrable?
- How is the connection between ESG drivers and risk factors managed in the integrated reporting or corporate risk dashboard?
- Do you believe that this integration has changed the internal perception of sustainability (from a compliance issue to a strategic management issue)?
- Has the introduction of double materiality led to changes in assurance requirements and data traceability?

### **Reflections and Future Perspectives**

#### **A&D Sector and Relevant ESG Topics: Information Collection and Reporting**

- In the A&D sector, what factors affect the implementation of double materiality (e.g., confidentiality/security, export controls, relationships with ministries/NATO/EU)?
- Which ESRS areas have required greater effort or change (e.g., ESRS 2/SBM, E1 climate, S1 own personnel, G1 business conduct, value chain)?
- Specifically, regarding the following ESG topics critical for the A&D sector, what has changed in implementing double materiality?
  - a. Supply chain (e.g., traceability, critical suppliers, due diligence expectations)

- b. Talent and digital skills (e.g., resource shortages, training, data analysis, IT/OT; investment priorities and roadmap)

### **Governance, Culture, and Perspectives**

- How has the level of involvement of other corporate functions (e.g., operations, procurement, HR, communication) changed in the impact materiality process after the introduction of the CSRD?
- Which ESG KPIs are you using for internal processes and/or external reporting? Have these indicators, if they exist, been linked to incentives?
- What obstacles (capacity, data, costs, culture, sector-specific regulation) and enabling factors (management sponsorship, resources, alliances) have you identified for implementing double materiality?
- Do you believe that issuing internal sustainability guidelines post-CSR D represents a step towards a more mature institutionalization of sustainability at Alpha?
- How do you manage the uncertainty related to continuous regulatory developments (Omnibus Package, simplified ESRS)?
- Internally, are these ongoing regulatory changes interpreted more as an opportunity for simplification or as an additional source of complexity?
- In summary, what concrete changes in sustainability (processes, governance, strategy, values) have you observed in recent years (2023–2025)?
- Looking ahead, what further developments do you envision for integrating sustainability and risk management? Over the next 2–3 years, which path of change do you consider most feasible under the CSRD in your organisation?
- Is there anything else you would like to add to help better understand Alpha’s journey in managing double materiality?

---

## **INTERVIEW GUIDE– P05 and P06**

### **INTRODUCTION**

- Could you describe your role and how ESG is currently integrated within Alpha’s Investor Relations unit? When was sustainability first introduced in this function, and how has it evolved over time? What pressures influenced this evolution— internal (e.g., strategic decisions, business considerations, etc.) and/or external (e.g., regulatory requirements, investor expectations, etc.)?
- How has investor interest evolved over time (both sustainable investors and other institutional investors) regarding ESG topics in the A&D sector, and specifically in the case of Alpha?
- What are Alpha’s sources of financing specifically linked to sustainability topics (e.g., sustainability-linked financing)? How significant is the European taxonomy in obtaining such financing?
- What are the main sustainability-related information requests from institutional investors, and how are these managed internally (e.g., in relation to the strategic

plan, ESG ratings, sustainability certifications, science-based targets, ESRS reporting, assurance, etc.)?)

- What are the main channels for engaging with sustainable investors today, and how are their requests for transparency or clarification managed?
- How is coordination carried out among Investor Relations, Sustainability, Risk, and the Consolidated Sustainability Statement teams in preparing integrated reports and communicating with the market? Are there other relevant functions within the company with which you coordinate on these topics?
- How does the Investor Relations function interact with top management and the Board, particularly regarding ESG topics?

## **MAIN BODY OF THE INTERVIEW**

### **Double Materiality and ESG Disclosure**

- With the introduction of double materiality, how has the collaboration between Investor Relations, Sustainability, and Risk Management changed?
- Has the introduction of double materiality altered the way Alpha communicates ESG performance to the market and investors?
- What is the role of Investor Relations in identifying material topics under the new double materiality perspective (e.g., identifying potential sustainability drivers arising from financial analysts' or investors' requests)?
- What challenges arise in communicating the impacts resulting from the double materiality assessment process to the financial community, and how are they addressed?

### **Evolution of the Regulatory and Geopolitical Context**

- In recent months, there has been significant discussion about the Defence Readiness Omnibus Package and changes to the European sustainability framework. How is this regulatory evolution perceived by your function? Is it seen as an opportunity to redefine market communication or as a source of uncertainty?
- In your view, is the changed geopolitical context and the progressive integration of the defense sector into European sustainable finance modifying sustainable investors' interest or approach towards Alpha?
- How does Alpha respond to these ongoing changes (see questions 10 and 11) in terms of ESG communication to the market?
- Has the company implemented specific initiatives to clarify its contribution to sustainable security or to differentiate its activities in the "ethical defense" debate? How is coordination managed with Alpha Communication and Media function on these topics?

### **4. Internal Coordination and ESG Communication Governance**

- Are there internal procedures or guidelines that define how and when ESG information is communicated to the market? If so, how have these evolved in recent years?

### **Future Perspectives and Closing**

- Looking ahead, do you believe that the increasing complexity of European regulations (CSRD, simplified ESRS, Defence Omnibus) will lead defense sector companies toward more selective and sector-specific reporting/communication?
- How do you envision Alpha's ESG communication with the financial community evolving over the next few years?