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Controlling the Uncontrollable

A qualitative study on how organizational actors enact sustainability control tools to reduce an organization's Scope 3 GHG emissions

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Abstract

This thesis examines how a company in the agriculture industry attempts to effectuate different sustainability control tools along its upstream supply chain to reduce its Scope 3 GHG emissions. It specifically explores the intricacies of controlling farmers in a farmer-owned cooperative. This study draws on nine in-depth interviews with sustainability, owner-communication, agriculture, and farmer-owner representatives from the case company. Using Ligonie's (2021) practice-based framework, the study demonstrates how actors enact three different sustainability tools to perform various sustainability control activities in creating sustainability-farming overlaps. Three different overlaps are identified – establishing, guiding, and enforcing – that, in distinct ways, impacted the farming practice. The thesis suggests that the degree to which an overlap achieves the control and sustainability teleologies depends on the extent to which the sustainability control tool resonates with a practice's teleology. In particular, aligning the shared understandings and teleoaffective structure has shown to be essential. Furthermore, the study emphasizes how intra-practice actors and intra-practice competition elements may be critical in making the sustainability control tools achieve the control and sustainability teleologies.

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Keywords: Management control systems for sustainability, Practice-based perspective, Supply chain, Agriculture, Scope 3

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Table of Contents

1. Introduction ***3***

1.1 Problem Background 3

1.2 Purpose 4

1.3 Contributions 4

1.4 Delimitations 4

2. Domain and Method Theory ***5***

2.1 Literature Review 5

2.1.1 A Functionalist Approach: MCSs for Sustainability as Something Organizations *Have* 5

2.1.2 An Interpretive Approach: MCSs for Sustainability as Something Organizations *Do* 7

2.1.3 Research Gap 10

2.2 Theoretical Framework 10

2.2.1 Organizations as Sites 10

2.2.2 Overlaps Between Practices 11

3. Method ***13***

3.1 Research Design 13

3.2 Data Collection 14

3.2.1 Empirical Context 14

3.2.2 Primary Data 14

3.2.3 Secondary Data 16

3.3 Data Analysis 17

4. Empirical Findings and Analysis ***17***

4.1 Introduction to AgriCo's Practices 17

4.1.1 The Sustainability Practice 18

4.1.2 The Farming Practice 19

4.1.3 The Owner-Communication and Agriculture Practices 20

4.2 Three Different Overlaps 20

4.2.1 The Scope 3 Target: An Example of an *Establishing* Overlap 20

4.2.2 The GHG Questionnaire: An Example of a *Guiding* Overlap 25

4.2.3 The Incentive Model: An Example of an *Enforcing* Overlap 30

5. Discussion ***35***

5.1 A Resonating Approach in the Pursuit of Controlling Suppliers 36

5.2 The Power of Horizontal Control in Controlling Suppliers 38

6. Conclusion ***39***

6.1 Summary 39

6.2 Limitations 40

6.3 Suggestions for Future Research....40
7. References....41
8. Appendix....44
8.1 Appendix 1: Interview Details....44
8.2 Appendix 2: Interview Guide Extract....45
8.3 Appendix 3: The Structural Elements of AgriCo's Practices....46

1. Introduction

1.1 Problem Background

"Climate chaos is a crisis of biblical proportions. The signs are everywhere. Instead of a burning bush, we face a burning planet. [...] The world still needs a giant leap on climate ambition." - António Guterres, UN Secretary-General (Guterres, 2022).

The Paris Climate Agreement is one of the global treaties which aim to combat climate change by limiting the global temperature to 1.5ºC degrees. In attaining this, the agreement binds nations to undertake ambitious actions to reduce greenhouse gas (GHG) emissions. The agriculture industry particularly contributes to the total GHG emissions. In this sense, sustainability within agriculture has become an increasingly non-negotiable business objective. Consequently, agriculture corporations worldwide have been forced to develop highly ambitious sustainability strategies to reduce their climate impact. (UNFCC, 2022) In particular, an increasing number of companies are setting best practice reduction targets for their Scope 1, 2, and 3 GHG emissions in line with the Science Based Targets initiative (SBTi). Despite most of their emissions stemming from Scope 3, companies have mainly focused on reducing their Scope 1 and 2 GHG emissions, as Scope 3 GHG emissions lay outside a company's direct control and ownership (Farsan et al., 2018). However, it becomes increasingly urgent to address Scope 3 GHG emissions, which leaves businesses with no choice but to take on this responsibility. Thus, the question becomes: How do you control the uncontrollable?

The accumulating pressure on businesses to become more environmentally sustainable has prompted a growing body of literature on the role of management control systems (MCSs) for sustainability in interweaving the sustainability paradigm with a company's business-as-usual paradigms and in driving organizational change (Gond et al., 2012; Contrafatto & Burns, 2013; Spence & Rinaldi, 2014; Contrafatto, 2014; Crutzen et al., 2017; Bui & de Villiers, 2017; Laguir et al., 2018; Ligonie, 2021; Beusch et al., 2022). However, relatively few researchers have been examining how MCSs for sustainability are enacted along an organization's supply chain to control for Scope 3 GHG emissions. With the latter becoming an at the top of the agenda issue for corporations, this constitutes a highly intriguing avenue of research.

1.2 Purpose

The purpose of our study is to explore how MCSs for sustainability are enacted by different organizational actors in an upstream supply chain to reduce Scope 3 GHG emissions. Concretely, our research question is the following:

How do organizational actors enact management control systems in their upstream supply chain to reduce Scope 3 GHG emissions?

1.3 Contributions

In essence, our study contributes to the extant literature by demonstrating how organizational actors may enact sustainability control tools to reduce Scope 3 GHG emissions in the upstream supply chain to drive paradigm integration and organizational change. Specifically, by employing Ligonie's (2021) practice-based framework, we examine three specific sustainability control tools, whereby two distinct contributions are produced. Firstly, our empirics reveal that for sustainability control tools to become controlling, they must have the capacity to create overlaps. To do so, organizational actors perform a variety of sustainability control activities to ensure that the control tools resonate with the various dimensions of the practice which they aim to control. In particular, we emphasize the importance of aligning the practices' teleoaffective structures and shared understandings. Secondly, the study shows how intra-practice actors may be better candidates for effectuating the control tools as they share the practice's structural elements. Also, embedding intra-practice competition mechanisms in the sustainability control tools has shown to be effective in boosting their capacity to fulfill the control and sustainability teleologies.

1.4 Delimitations

We have made three main delimitations. Firstly, our study only concerns the environmental aspect of sustainability. Specifically, our research question is limited to only exploring Scope 3 GHG emissions. Secondly, our empirics mainly address the Scope 3 GHG emissions stemming from one actor in the supply chain. This is because the farms' GHG emissions constitute a vast majority of the case company's total Scope 3 GHG emissions. Thirdly, we only include four of the case company's practices. The practices to include became evident at the stage of analyzing our data and are those practices that are most involved in driving the reduction of on-farm GHG emissions.

2. Domain and Method Theory

2.1 Literature Review

As mentioned, the literature on MCSs for sustainability constitutes an extensive yet growing body of literature. According to Simons, *"Management control systems are the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities"* (1995, p. 5). As our research question is inherently concerned with transforming a current organizational praxis, the relevant literature treats organizational change in relation to sustainability. This literature explores the extent to which the sustainability paradigm interweaves with the business-as-usual paradigms of an organization. In essence, the literature on MCSs for sustainability comprises two streams. Using the notion introduced by Ligonie (2021), the first stream views MCS as something organizations *have*, while the second views these as something organizations *do*. In the subsequent sections, we will examine these two research streams in more detail and identify a gap in the extant literature.

2.1.1 A Functionalist Approach: MCSs for Sustainability as Something Organizations *Have*

The first stream of research mainly concerns how an organization's MCSs for sustainability are designed and implemented and how this affects the degree of paradigm integration and organizational change. In doing so, they tend to apply method theories like Simons' four levers of control framework (Gond et al., 2012; Laguir et al., 2018; Beusch et al., 2022) and Malmi and Brown's management control systems as a package framework (Crutzen et al., 2017). In particular, Gond et al. (2012) explore the integration of sustainability into corporate strategy. They consider MCSs and sustainability control systems (SCSs) as separate systems and analyze the integration of these from the perspective of Simons' diagnostic and interactive uses of control systems. Furthermore, the authors examine the degree of systems integration by addressing technical, organizational, and cognitive integration (Gond et al., 2012). Beusch et al. (2022) expand on Gond et al.'s (2012) work by considering the uses of Simons' boundaries and belief systems in integrating MCSs and SCSs. Their empirics show that strategic-level and operation-level managers often have different views on sustainability. The latter implies that the level of technical, organizational, and cognitive integration is highly dependent on whether there are intensive dialogues regarding

sustainability between managers across different organizational functions and levels. Therefore, the authors emphasize the role of Simons' belief and interactive systems in integrating MSCs and SCSs. Nevertheless, they argue that future research must address stakeholders' roles more diligently to fully understand how paradigm integration plays out in practice. (Beusch et al., 2022)

Furthermore, multiple researchers have expanded on these papers by also including different informal controls (Crutzen et al., 2017; Laguir et al., 2018) and how they impact the degree of paradigm integration and organizational change. In particular, Crutzen et al.'s (2017) findings show that most companies primarily rely on cultural controls. They argue that one possible explanation is that a shared meaning of sustainability must be established for formal controls to be effective in practice. Along a similar line, Laguir et al.'s (2018) findings reveal that formal belief systems and informal controls play a central role in strengthening a sustainability culture that supports formal SCSs. Laguir et al. (2018) conclude that companies use various packages of formal and informal SCSs to manage sustainability activities aimed at different stakeholders. However, they do not explain how this plays out in practice.

Moreover, since our paper examines MCSs for reducing GHG emissions, previous research on carbon management control systems (CMCSs) is of interest. In one paper, Bui and de Villiers (2017) explore the integration of CMCSs at the strategic and operational levels by conducting a field study of 30 organizations. They recognize that organizational levels employ different configurations of CMSCs. Furthermore, they conclude that due to the *"lack of a carbon-focused belief system"*, companies struggle to *"engage management at different organizational levels, as carbon management does not always align with, or contribute to, operational or strategic objectives (e.g. increased revenue or decreased expenses)"* (Bui & de Villiers, 2017, p. 1292). In addition, the authors emphasize the importance of communicating the controls in a highly informative and effective manner for the CMCSs to drive organizational change.

According to Ligonie (2021), the former stream of literature mainly approaches the research phenomena from a functionalist point of view by considering MCSs for sustainability as something organizations *have*. This leads us to the second stream of literature, which views MCSs for sustainability as something organizations *do*, implying the enactment of organizational actors.

2.1.2 An Interpretive Approach: MCSs for Sustainability as Something Organizations *Do*

This stream of literature emphasizes the role of a company's various actors in making MCSs for sustainability *controlling* (Contrafatto & Burns, 2013; Spence & Rinaldi, 2014; Ligonie, 2021). In a paper, Contrafatto and Burns (2013) explore how the interrelationship between social and environmental accounting and reporting (SEAR) practices and organizational change unfold over time. They argue that there is *"a dearth of understanding as to what today's organisations are really doing (and why and how) in respect to their SEAR practices"* (Contrafatto & Burns, 2013, p. 351). To explore this gap, the authors conduct a longitudinal study of a multinational company and combine two different frameworks to analyze the empirics. Moreover, they argue that these frameworks are complementary yet similar to each other, as they *"view organisational [...] change as socially constructed, and constituting socially embedded processes over time"* (Contrafatto & Burns, 2013, p. 352). Thus, the theoretical lens employed is particularly well-suited to explore the complexities of organizational change and paradigm integration, which supports the study's interpretive approach. In particular, the authors produce three insights that are especially relevant to our study. Firstly, they identify that most of the case company's SEAR tools and techniques only elicited evolutionary changes, i.e., they did not provoke change in the organization's fundamental assumptions. Accordingly, in contrast to revolutionary changes, evolutionary changes tend to evoke less contemporary conflicts in a company. Secondly, they emphasize that any organizational change prompted by new SEAR practices requires high involvement from key organizational actors, e.g., CEOs, and high-quality communication processes. Thirdly, the authors conclude that the *"dominant economic-rooted assumptions concerning profit-seeking remained stronger than anything else"* (Contrafatto & Burns, 2013, p. 363). This resulted in sustainability not becoming institutionalized in the organization. Consequently, the *"sustainability-related developments needed to be carried out within an assumed profit-oriented model"* (Contrafatto & Burns, 2013, p. 365).

Along a similar line, Contrafatto (2014) conducts a longitudinal study of a company to explore *how* and *why* social and environmental reporting (SER) practices can become institutionalized in a company, that is, *"an established and taken for granted [...] actuality"* (p. 421). The empirical findings show that the institutionalization of SER practices played out through a three-step process in the case company: *"(i) the construction of a common meaning system around the concept of*

social and environmental responsibility; (ii) practicalisation involving the emergence of rules and routines; and (iii) reinforcement through the implementation of intra-organizational managerial procedures and structures" (Contrafatto, 2014, p. 414). In contrast to previous papers that have mainly stressed the importance of key actors in institutionalizing SER practices, Contrafatto (2014) highlights that lower-level employees may play an equally crucial role. Specifically, these employees are effective in *"making the social and environmental issues understandable, intelligible and, therefore, more acceptable and adoptable"* in a company (Contrafatto, 2014, p. 428). Furthermore, for SER practices to become institutionalized, they must resonate with other organizational practices and actors' cultural-cognitive frameworks. Conclusively, Contrafatto (2014) emphasizes that additional research is needed to understand *"the effects of the institutionalization of SER and the role that process may (or not) play in promoting significant changes in organizations towards more socially and environmentally responsible practices"* (p. 430).

As our research question is particularly concerned with the role of a company's suppliers, the contributions of Spence and Rinaldi's work (2014) are relevant. In their paper, they examine the conditions under which *"sustainability as a regime of practice is enacted, maintained and transformed not just within one organization, but across the organizational boundaries of the supply chain"* (Spence & Rinaldi, 2014, p. 449). By applying the concept of governmentality and four analytics of governments – *fields of visibility, techne, episteme,* and *identity formation* – they analyze a company's employment of a particular sustainability accounting framework. Accordingly, Spence and Rinaldi (2014) explore the *"activities, technologies, authorities and regimes of control which seek to create a change in practice within a given setting"* and the *"practices [...] relat[ing] to activities intended to promote sustainability within that supply chain"* (p. 436). In doing so, they portray the firm as the governor and the suppliers as being governed. The contributions of their study extend and vary from other papers within the literature on MCSs for sustainability. First, the fields of visibility analytic shows that the firm views itself as a sustainability leader. It also reveals that the firm makes a business case out of sustainability activities by framing it as an economic issue. This is to ensure that sustainability becomes prioritized among the suppliers. The techne analytic demonstrates how the firm transformed various control tools to instill this view of sustainability in the suppliers' minds. Moreover, the identity formation analytic illustrates how the firm creates identities for its suppliers, which they use to prioritize and rank the different supplier groups. In addition, the identity analytic displays

that the firm is an agent of consumer desires, which contradicts the company's self-identification as a sustainability leader. Apart from the preceding contributions, Spence and Rinaldi (2014) signify the importance of trust as a facilitator for making MCSs for sustainability controlling. The findings also reveal that intra-practice competition is effective in controlling the suppliers. Conclusively, Spence and Rinaldi (2014) point out that employing the concept of governmentality and four analytics of government in future research could *"offer further useful insights into how accounting is utilized, and can better be formulated, communicated and applied, as a means to influence regimes of practices"* (p. 449).

Furthermore, Ligonie (2021) explores how MCSs for sustainability can *"change organizational practices dominated by the business-as-usual paradigm"* (p. 1). In doing this, Ligonie (2021) conducts an ethnographic study on a European state-owned gambling company. The author builds on Schatzki's practice approach, which, from a theoretical standpoint, shares several commonalities with institutional theories and the concept of governmentality and four analytics of government. In the paper, Ligonie (2021) views sustainability as a practice within an organization that may or may not overlap with other practices. The author argues that control activities *"are particularly prone to creating linkages among practices"* (Ligonie, 2021, p. 15). Accordingly, Ligonie (2021) finds that actors enact sustainability control tools to perform sustainability control activities in various ways. This forms different overlaps – *reassembling*, *expanding*, and *rippling* – between the company's sustainability practice and other organizational practices. In turn, these overlaps have different implications for the extent to which these control tools fulfill the control teleology and for the outcomes, i.e., the degree of paradigm integration and organizational change. The framework developed by Ligonie (2021) constitutes the method theory for our study, which we explain in more detail in section *2.2 Theoretical Framework*. The study by Ligonie (2021) contributes to the literature on MCSs for sustainability in several ways, mainly by showing how the creation of overlaps across practices yields change not only on a practice level but also on an organizational level. On the practice level, Ligonie explains the changes as a consequence of that *"actors co-constructed shared activities, ways of doings, understandings and goals as they attempted to align sustainability control with their own activities, all the while fulfilling their practices' teleologies"* (2021, p. 14). On the organizational level, the overlaps *"helped move the sustainability practice from the periphery to the centre of the practice network"* (Ligonie, 2021, p. 14). Another interesting finding by Ligonie (2021) is that overlaps may not always entirely fulfill the control teleology. However, simply attempting to do so can legitimize sustainability as a

practice in an organization. In conclusion, Ligonie's (2021) findings argue that exploring the interrelations among different organizational practices is critical to understanding *how* and *why* MCSs for sustainability can promote paradigm integration and organizational change.

2.1.3 Research Gap

The above underlines three gaps in the extant literature on MCSs for sustainability, to which our paper seeks to contribute. Firstly, the literature review points out that the second stream is a relatively unexplored territory compared to the first. Secondly, to the best of our knowledge, there are few studies on how a company's suppliers impact the effectiveness of MCSs for sustainability in driving paradigm integration. Thirdly, relatively few researchers have applied practice theory to study how actors enact MCSs for sustainability to steer organizational change. Therefore, we intend to contribute to the extant literature by exploring the role of actors in a company's upstream supply chain in making the MCSs for sustainability *controlling* and in driving paradigm integration and organizational change. In doing so, we attempt to use the explanatory power of Ligonie's (2021) framework.

2.2 Theoretical Framework

Ligonie (2021) argues that prior research *"tends to black-box the notion of control: it under-examines how socially embedded actors make sustainability control tools controlling"* (p. 12). In contrast, by applying a practice-based perspective, Ligonie's (2021) findings *"contribute to unpacking sustainability control by highlighting that sustainability tools can only become control tools when they are supported by arrays of activities tying practices together, and that these interrelations can happen in different ways"* (p. 1). In line with the latter, we consider that Ligonie's (2021) practice-based framework provides a profound understanding and an intricate analysis of our empirical material.

2.2.1 Organizations as Sites

In line with Schatzki's ontology, organizations are viewed as *sites* comprising a bundle of *material arrangements* and *practices*. Material arrangements refer to artifacts, e.g., buildings, offices, and computers. However, we will disregard material arrangements in our study, as they hardly have any presence in the framework developed by Ligonie (2021). Furthermore, an organizational practice, such as the sustainability practice, constitutes a chain of actions that form a nexus of

activities. The sustainability practice's activities include, for instance, *"defining the sustainability strategy, implementing projects [...] and controlling impacts"* (Ligonie, 2021, p. 2). In particular, *sustainability control activities* constitute a central activity in the framework, e.g., *"defining indicators and targets of sustainability performance, measuring social and environmental impacts [...] and reporting on the results"* (Ligonie, 2021, p. 2).

Moreover, the activities forming a certain practice are coordinated by three structural elements – *teleoaffective structure, shared understandings,* and *rules* – which distinguishes one practice from another, see Table 1. Ligonie (2021) describes each practice's structural elements, as well as its activities and actors. We will present our case company's practices in a similar manner, as this creates a detailed understanding of what each stipulates.

Structural element	**Ligonie's (2021) definition**
Teleoaffective structure	*"The teleoaffective structure sets the boundaries of practices by defining its purpose(s), the normative attitudes regarding the way it is accomplished and the emotions that come with its accomplishment."* (Ligonie, 2021, p. 3)
Shared understandings	*"Shared understandings include tacit know-how and collective beliefs which help participants select and competently accomplish appropriate actions in a given situation. Shared understandings are usually tied to the site in which the practice is performed and can be common across several practices of this setting - e.g. the search for efficiency and profitability is an understanding common to most organizational practices."* (Ligonie, 2021, p. 3)
Rules	*"Rules guide participants in carrying out their actions. They range in formality from statute laws to rules of thumb."* (Ligonie, 2021, p. 3)

Table 1: Ligonie's (2021) definitions of the three structural elements coordinating a practice's activities

2.2.2 Overlaps Between Practices

According to Ligonie (2021), the various organizational practices can interlock in a bundle, either by *connecting* or by *overlapping* with each other. The first refers to situations in which practices

exist simultaneously in an organization but have no or only a few elements in common. In contrast, the second prescribes a high degree of commonality between practices, by which *"particular actions are part of two or more practices or when practices share [structural] elements"* (Schatzki, 2005, p. 474, as cited in Ligonie, 2021, p. 3). Ligonie (2021) states that *sustainability control tools* play a critical role in creating shared elements between the sustainability practice and other organizational practices. However, this requires actors to perform a variety of sustainability control activities. From this point forward, sustainability control tools will replace the notions of sustainability control systems (Gond et al., 2012; Crutzen et al., 2017; Beusch et al., 2022), social management control systems (Laguir et al., 2018) and carbon management control systems (Bui & de Villiers, 2017).

As mentioned, Ligonie's (2021) findings show that three sustainability control tools were enacted in distinct ways. This created three types of overlaps – *reassembling*, *expanding,* and *rippling* – that, to varying extents, fulfilled the control teleology. Ligonie (2021) defined the overlaps based on how the sustainability practice enacted the sustainability control tools, see Table 2.

Overlap	**Way of enacting sustainability control tools**
Reassembling	*"Capturing an existing tool from other practices and tying it to the sustainability practice."* (Ligonie, 2021, p. 1)
Expanding	*"Adding a new hybrid tool to an existing practice."* (Ligonie, 2021, p. 1)
Rippling	*"Capturing an existing tool that is already shared between several practices."* (Ligonie, 2021, p. 1)

Table 2: Ligonie's (2021) definition of overlaps

However, we have decided to define the overlaps in a different manner. We do this as all of the examined sustainability control tools have been enacted by the sustainability practice in a similar way. In particular, the sustainability actors have introduced the tools to the farming practice in all cases. Thus, we find it more appropriate to define the overlaps based on *how* the sustainability control tool contributes to the fulfillment of the control teleology, see Table 3. We believe that this way of defining the overlaps highlights the specific intricacies of our empirical context.

Overlap	How the sustainability control tools contribute to the fulfillment of the control teleology
Establishing	The sustainability control tool contributes to fulfilling the control teleology by establishing a certain sustainability direction.
Guiding	The sustainability control tool contributes to fulfilling the control teleology by guiding a practice's activities.
Enforcing	The sustainability control tool contributes to fulfilling the control teleology by enforcing a certain way of operating.

Table 3: Our definition of overlaps

3. Method

3.1 Research Design

Our study treats the field of MCSs related to sustainability, which is a field that is dominated by studies based on qualitative research methods (Contrafatto & Burns, 2013; Contrafatto, 2014; Spence & Rinaldi, 2014; Crutzen et al., 2017; Bui & de Villiers, 2017; Laguir et al., 2018; Ligonie, 2021; Beusch et al., 2022). This thesis contributes to the important and called-for qualitative research in the accounting field (Lee & Humphrey, 2006; Power & Gendron, 2015) and conducts an in-depth case study, primarily through semi-structured interviews and secondarily through data collection from documents. This is a common and effective method combination in accounting research when collecting qualitative data (Lee & Humphrey, 2006). Another paper emphasizes that *"an important value of qualitative research is description and understanding of the actual human interactions, meanings, and processes that constitute real-life organizational settings*" (Gephart, 2004, p. 455, as cited in Power & Gendron, 2015, p. 152). Thus, the objective of our study is not to generalize a phenomenon but for the study to be *"generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like [an] experiment, does not represent a ''sample'' and the investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization)"* (Yin, 1989, p. 21, as cited in Power & Gendron, 2015, p. 158). To clarify, the purpose of the study is not to deduce the

study's conclusions to a general organizational setting but to make projections about the possible transferability of the study to a specific organizational context. Furthermore, Dubois and Gadde (2022) argue that *"case studies provide unique means of developing theory by utilizing in-depth insights of empirical phenomena and their contexts"* and that *"learning from a particular case (conditioned by the environmental context) should be considered a strength rather than a weakness"* (p. 55). Thus, we aim to explore our research question through an in-depth case study.

We have addressed our research phenomena through an abductive approach. This is in line with the concept of *matching* as described by Dubois and Gadde (2002): *"Matching is, thus, about going back and forth between framework, data sources, and analysis"* (p. 556). In this way, we found Ligonie's (2021) framework to be guiding the analysis as opposed to conforming our empirical findings to the framework's boundaries. In addition, Dubois and Gadde (2002) highlight that going back and forth is an effective way for researchers to expand their understanding of both the theory and the empirical phenomena. The latter provided for a reflexive process when approaching the empirical material in relation to our method theory by continuously comparing and contrasting our empirical findings.

3.2 Data Collection

3.2.1 Empirical Context

The agriculture industry caught our attention as the industry is one of the greatest contributors to GHG emissions and in the center of the environmental crisis debate. Consequently, the industry is currently undergoing a major transformation to meet the global and national climate agendas. This has forced companies to control for and align with these targets. (UNFCC, 2022) Thus, we have chosen to investigate an agriculture cooperative that actively aims to reduce its Scope 3 GHG emissions. Henceforth, the case company will be referred to as AgriCo.

3.2.2 Primary Data

3.2.2.1 Semi-Structured Interviews

The primary data collection stems from semi-structured interviews which have been held with representatives and stakeholders from AgriCo. As for the initial contact, during a pilot interview,

AgriCo recommended different managers and farmer-owners within AgriCo. They were selected based on their position and expertise in reducing AgriCo's on-farm GHG emissions. Furthermore, the respondents have been working with the organization for varying lengths of time and view the topics discussed from different organizational angles. These include farmers, owner-communications managers, agricultural managers, and sustainability managers of varying kinds. Some farmers interviewed were contacted outside the recommendations of the AgriCo management to provide a more nuanced perspective. There could be unwanted bias effects of chain-referral sampling, i.e., employees recommending people with similar opinions to them to provide the organization's specific sustainability agenda (Emerson, 2015). However, we consider this bias to be somewhat eliminated, considering that the study includes multi-faced perspectives on the research area, which has been important to assess to research question holistically.

In the interviews, we utilized interview guides. They were designed in an open-ended manner to allow for elaborate answers from the respondents while simultaneously employing a thematic approach to ensure that the scope of the interviews is relevant to this study (Qu and Dumay, 2011). The empirical results from the interviews serve as the basis for analysis and insight in the following sections. Semi-structured interviews are, as mentioned, a commonly used method in collecting qualitative data and are the most effective interviewing style for obtaining detailed information about organizations (Lee & Humphrey, 2015). Furthermore, a semi-structured interview guide allows for some degree of comparability of the interviews at hand. At the same time, it allows for follow-up questions, which provide perspectives that may not initially have been considered (Leavy, 2020). Moreover, the comparability aspect of semi-structured interviews is useful for qualitative studies (Leavy, 2020) and has provided guidance to understand and analyze our empirical material.

We held nine in-depth interviews, which each was approximately 50 minutes. For further detailed insight regarding the interviews, see Appendix 1. We chose not to conduct any more interviews as we had obtained an abundance of material at this point. Moreover, the acquired material became saturated because the new respondents' inputs were somewhat repetitive. Nevertheless, a more extensive study could benefit from even more interviews and document analysis to get a more comprehensive picture of the organization at hand. However, this would be outside the scope and timeframe of this particular study.

3.2.1.2 Interview Context and Technique

The respondents chose an online setting for all interviews due to geographical distance. Eight interviews were conducted via Microsoft Teams, that is, through a video format, and one interview was via Phone. Six interviews were held in English despite that not being the respondent's first language. We deemed this to be suitable to eliminate wrongly paraphrasing the interviewees and having to translate colloquial native statements. However, upon the respondents' request, three interviews were held in the respondents' native language to avoid negatively impacting the quality of the dialogue and the interview results. In line with GDPR, all participants signed a consent form that informed them about their confidentiality and handling of their personal data. We believe that the confidentiality aspect is an important aspect in obtaining a transparent perspective from the respondents. The outline of the interviews was based on an interview guide with the same fundamental questions. However, they were slightly altered depending on the interviewee's expertise and position, see Appendix 2. Moreover, the interview guide was not sent out to the participants in advance. This was not only because the interviewees did not request it but also because we anticipated getting a more honest picture if no prepared answers from the interviewees were done. Field notes were taken throughout the interviews to identify emphasized themes to base the interview summaries upon. Furthermore, the intention behind the order of the interviews was to build upon the knowledge acquired from the previous interviews and clarify earlier statements from varying perspectives.

3.2.3 Secondary Data

The secondary data that we have used in our study are AgriCo's internal documents and the publicly available ESG and CSR reports. We primarily used these sources of secondary data to obtain a broad understanding of AgriCo's historical and future sustainability strategies and of which actors are involved in AgriCo's activities aimed at reducing its Scope 3 GHG emissions. Specifically, we used the external documents prior to the interviews to not focus on areas that were already explicitly stated in the publicly available documents. We utilized the internal documents to deepen our understanding of the sustainability control tools and how far they have come with these. However, we want to emphasize that the secondary data have primarily been used to complement the empirics stemming from the semi-structured interviews. Neither the external nor the internal documents will be disclosed in the references for the sake of confidentiality.

3.3 Data Analysis

The data analysis was performed continuously throughout the research period and between interviews to identify areas to explore further in upcoming interviews. However, before the formal analysis, Researcher A transcribed the interview recordings. Thereafter, Researcher B listened to the recordings and reviewed the transcriptions carefully to identify any inaccuracies or missed information. The field notes written during the interviews were examined and used to complement the transcriptions. Moreover, in the final step before the formal data analysis, we translated the three non-English interviews.

We adopted a thematic approach when analyzing the data collected from the interviews. According to Mattimoe et al. (2021), this approach is endorsed by Braun and Clarke (2006). In particular, the authors argue that: *"Thematic analysis is a method for identifying, analyzing and reporting patterns (themes) within data, where a theme is "something important about the data in relation to the research question and represents some level of patterned response or meaning from the data set"."* (Braun & Clarke, 2006, p. 80, as cited in Mattimoe et al., 2021, p. 11). The transcription phase for Researcher A and the auditing phase of Researcher B were essential in familiarizing data and identifying themes and ideas to explore in the formal analysis. To alleviate the data analysis, we used color-coding in the transcriptions and field notes according to themes. In particular, the data was sorted based on AgriCo's three sustainability control tools, which allowed us to employ our theoretical framework effectively in the formal analysis.

4. Empirical Findings and Analysis

In the following section, we will briefly introduce the four organizational practices in AgriCo that are relevant to this study. Thereafter, we will employ Ligonie's (2021) framework to analyze three of AgriCo's major sustainability control tools. In doing so, we will examine how AgriCo's sustainability actors enact these by performing various sustainability control activities to create overlaps between the sustainability and farming practices.

4.1 Introduction to AgriCo's Practices

The practices of interest for our study are the sustainability, farming, owner-communication, and agriculture practices. These are distinguished by the five structural elements – teleoaffective

structure, rules, shared understandings, activities, and actors – as described in Appendix 3. Given our research question, the sustainability practice and farming practice are particularly interesting as their interaction will constitute the focal point of this study.

4.1.1 The Sustainability Practice

Several interviewees portray AgriCo as a sustainability leader within the agriculture industry: "*I would say we are in the lead. We are in the top, if not at the top"* (Manager B, 2022).
Furthermore, multiple interviewees emphasize that AgriCo has been working with the various aspects of sustainability for several years:

"We have a culture where no one's really questioning why we work with sustainability. Organizational members generally believe that AgriCo must work with sustainability, in some way or another, even though they may not like every single activity." (Manager A, 2022)
"We have always had sustainability at the heart of the company. It's embedded in our DNA." (Manager B, 2022)

However, the sustainability endeavors have been accelerated in the last couple of years, as AgriCo's executive management and Board of Directors (BoD) have become strategically closer: *"If you compare where we were three years ago, the management and the board was like very very far from each other, and then, nothing happens. So, when you get the management and [BoD] to work together and set the direction and say 'This is where we want to go' and find a solution, you bring the farmers on board. But before you reach that step, you don't come anywhere."* (Farmer 3, 2022)

In recent years, AgriCo has predominantly focused on reducing its GHG emissions. Specifically, they have focused substantially on Scope 3 GHG emissions: *"I think, as a company, we're focusing a lot on Scope 3 at the moment"* (Manager E, 2022). Manager A adds: *"I would say that we work a lot more with Scope 3 because most emissions come from there"* (2022).

Another reason why AgriCo emphasizes the reduction of its Scope 3 GHG emissions is the increasing number of international, national, and industry-specific legislations, standards, and targets, as well as the increasing pressure from customers and consumers. Thus, extra-

organizational factors are central: *"But to be frank, I don't think any company is doing this if there's not a business reason as well"* (Manager E, 2022). Furthermore, many AgriCo actors view a strong focus on reducing Scope 3 GHG emissions as an opportunity to reap a competitive advantage and make money: *"That is really important if you want to be competitive. If you are number three introducing something, there will be no competitive advantage"* (Manager A, 2022). Manager A continues: *"Over the past years, we have discovered that we really can commercialize and make money out of sustainability"* (2022).

Multiple interviewees have mentioned that the most important aspect is not to make every single farmer more sustainable but to move the whole farmer-owner collective. Accordingly, AgriCo's sustainability actors have enacted a variety of sustainability control tools to fulfill the *sustainability teleology*, i.e., to reduce Scope 3 GHG emissions. Another important aspect of the sustainability control tools is to achieve the *control teleology*, i.e., to alter practices' business-as-usual ways of operating. In particular, this paper will explore the *Scope 3 Target*, the *GHG Questionnaire*, and the *Incentive Model*.

4.1.2 The Farming Practice

As AgriCo is a cooperative, the farmers are not only the suppliers but also the owners of the company, which implies that: *"[It] is not a regular buyer-supplier relationship"* (Manager A, 2022). However, each farmer still runs their own company, which has two important implications. First, like any other business owner, they are continuously aiming at increasing revenues and reducing costs. Second, the farms' GHG emissions belong to AgriCo's Scope 3 GHG emissions. Although the farmers have slightly different contracts with AgriCo, the fundament is the same, i.e., the farmers are obliged to deliver high-quality produce to AgriCo, and AgriCo is obliged to buy the produce from the farmers. Farmer 2 emphasizes the most important aspect of the relationship: *"All farmer-owners must be treated equally. AgriCo must pay the same for the same quality"* (2022).

Furthermore, AgriCo has a Board of Directors (BoD) and a Board of Representatives (BoR) that mainly consist of farmers. The representatives are elected by the farmer-owners who have equal voting rights. This means that AgriCo works like a democracy: *"Like everywhere else, some may think that the BoR has too much power. [...] But I would say the democracy, at large, works. That*

is what democracy is. It works on average" (Manager B, 2022). Thus, the cooperative structure with elected and non-elected farmers implies that some farmers have a higher degree of influence on AgriCo's strategy, i.e., being strategic farmers, while others are ordinary farmers simply supplying AgriCo with produce, i.e., being non-strategic farmers.

Overall, the agriculture industry has faced an array of challenges throughout the years. The various dimensions of the farming practice, e.g., climate impact, food safety, and animal welfare, have been faced with increasing legislation, laws, and directives. At the same time, multiple interviewees emphasize the financial pressure that farmers have endured in the past decade. There is also a continued consolidation of smaller farms, resulting in fewer but larger farms. In addition, there is a societal decline in interest in the farming profession. Many interviewees stress that the latter explains why AgriCo has been facing a decline in members in recent years.

Moreover, AgriCo's farmer-owners are highly concerned with the welfare of the animals. Thus, the farming teleology is multi-faced. First, the farmer-owners continuously strive for the highest financial return on their high-quality produce. Second, they are highly concerned with the well-being of their animals. Third, they are financially oriented business owners.

4.1.3 The Owner-Communication and Agriculture Practices

In the context of reducing Scope 3 GHG emissions, the purpose of the owner-communication and agriculture practices is to act as an intermediary between the farming practice and the sustainability practice. In particular, they are supporting the sustainability-farming overlaps in various ways. We explain the practices' structural elements more carefully in Appendix 3.

4.2 Three Different Overlaps

In the following sections, we will apply Ligonie's (2021) framework to examine how the enactment of three of AgriCo's major sustainability control tools produced three distinct sustainability-farming overlaps.

4.2.1 The Scope 3 Target: An Example of an *Establishing* Overlap

A couple of years ago, AgriCo's BoD agreed to set an ambitious intensity target of X% for reducing their Scope 3 GHG emissions. Recently, SBTi approved the target to align with the 1.5ºC goal of

the Paris Climate Agreement. Manager F claims that: *"AgriCo wanted to be the first company in the agricultural industry to set a target in line with the 1.5ºC goal"* (2022).

In an attempt to put the Scope 3 Target into effect, multiple actors within AgriCo have been involved in performing three interrelated sustainability control activities that produced the *establishing* overlap: 1) Formalizing the Scope 3 Target in the corporate strategy, 2) Assessing the farmers' attitudes towards the Scope 3 Target, and 3) Addressing the diversity among farmers through various communication channels and methods.

4.2.1.1 Formalizing the Scope 3 Target in the Corporate Strategy

As previously mentioned, AgriCo argues that they have been working on reducing Scope 3 GHG emissions for several years. However, multiple interviewees say that this activity became even more central when AgriCo's BoD agreed on the reduction targets for the three different scopes to constitute one of the pillars in the new corporate strategy:

"It's very much an integrated part, I mean, we got a new strategy in [year], and our Scope 1, 2, and 3 goals are part of our five-year strategy's targets. This means it's one of the pillars we build our strategy on, it's one of the pillars we will look at in [year] to evaluate whether we're on track or not." (Manager E, 2022)

As the corporate strategy is overarching for all practices, the Scope 3 Target would constitute a shared element between all organizational practices. However, several interviewees affirm that AgriCo has faced various challenges with the Scope 3 Target not echoing the farming teleology, which reduced the degree to which the formalization of the target achieved the control teleology at that point.

4.2.1.2 Assessing the Farmers' Attitudes Towards the Scope 3 Target

As a vast majority of AgriCo's Scope 3 GHG emissions stem from the farms, the Scope 3 Target has evoked significant discussions among the farmer-owners. The interviewees repeatedly point out that there is a great diversity among the farmers concerning various dimensions: *"Each farmer is like no other farmer"* (Farmer 2, 2022). Accordingly, Manager E argues that the farmers vary along a broad spectrum, from climate activists to climate deniers, which has been one of AgriCo's most significant challenges.

Firstly, farmers have varying attitudes as to why AgriCo has to be a state-of-the-art company in the agriculture industry. In particular, the pace at which AgriCo embarks on new sustainability-oriented initiatives seems to be a source of conflict among the farmers: *"There are farmers saying that we are moving way too fast, but there are also farmers saying that we are not moving fast enough"* (Manager E, 2022). Furthermore, multiple interviewees mean that a farmer's sustainability approach depends on the extent to which the farmer is future-minded, not only regarding whether they are business-oriented but also whether the next generation will take over the farm. Some farmers also believe that the economic pressure they face makes many emission-cutting activities challenging to pursue at this point: *"What should be questioned is what pace would be appropriate for the farmers to get along financially"* (Farmer 1, 2022).

Secondly, there appear to be contradictions regarding which sustainability aspects to focus on. Manager E emphasizes: *"I mean, it's not a conflict in the company. Sometimes, there's a conflict with the farmers"* (2022). As noted earlier, the farming practice is highly concerned with animal welfare. Farmer 1 argues that AgriCo's substantial focus on emission-reducing activities prevents them from focusing on animal welfare to the extent they like: *"We farmers would be better off if we could choose what sustainability activities to pursue as long as our practices are within the legislations"* (2022). Furthermore, Manager E states: *"There are conflicts even within the environmental sustainability goals"* (Manager E, 2022). Specifically, some farmers are bothered by the fact that AgriCo does not seem to view biodiversity on farms as equally important as reducing the farms' GHG footprint. As indicated by Manager B: *"Some farmers would say we do not get the balance right, some farmers will say that we have the balance right"* (2022). However, many interviewees clarify that this is because biodiversity is difficult to measure at this point, which all farmers do not understand: *"I think there is perhaps a discussion on whether we focus too much on [GHG emissions], but I think that is a short-term discussion, because long-term, we are strategically aligned that biodiversity is equally important"* (Manager B, 2022). Similarly, many farmers question why AgriCo does not measure carbon sequestration. Farmer 2 argues:

"The farmers are asking why we're only measuring the negative aspects of the farming practice. Why are we not measuring the positive aspects? We've tried to explain that there's no scientifically accepted method yet, but they refrain from listening to that, and argue that AgriCo should do it anyway, which we definitely shouldn't." (2022)

This shows how the Scope 3 Target, to varying extents, was unsuccessful in interweaving the teleoaffective structure and shared understandings of the two practices. While some farmers fully comprehend AgriCo's substantial focus on reducing the on-farm GHG emissions, others do not grasp this, which has created two different groups of farmers – the 'sustainable' and the 'non-sustainable'. Nevertheless, multiple interviewees claim that these continuous discussions require considerable time and resources, which has impeded the Scope 3 Target's fulfillment of the sustainability and control teleologies.

4.2.1.3 Addressing the Diversity Among the Farmers Through Various Communication Channels and Methods

Manager D argues that communicating Scope 3 GHG emissions is far more complex than communicating Scope 1 and 2 GHG emissions: *"It's more about the whys and the hows"* (2022). The interviews have clarified that the farmers are too different for a one-size-fits-all communication approach: *"The challenge, then, is to address this diversity"* (Manager E, 2022). Consequently, actors within the owner-communication practice have performed various endeavors to address the diversity among the farmers. These activities differ along two particular dimensions.

Firstly, the communication channels employed by the owner-communication activities differ. In particular, AgriCo's farmers have access to an intranet available for actors within the farming, owner-communication, and agriculture practices. In addition, AgriCo arranges various programs, webinars, and meetings that all are voluntary for farmers to attend. Although these communication channels have the potential to encourage dialogues between different practices, multiple interviewees consider inter-practice communication a challenge:

"I think AgriCo is very good at one-way communication. We're not particularly good at dialogues. Um, I think we're really bad at it." "There's no structured way of handling feedback." (Farmer 3, 2022)
"What we can do in terms of communication is to highlight the dialogue more." (Manager D, 2022)
"We should talk to every farmer. [...] I think we're missing out on that a lot." (Manager A, 2022)

As the owner-communication practice serves the purpose of an intermediary between the farming practice and the sustainability practice, the owner-communication practice is deemed to constitute

the locus of a sustainability-farming overlap. However, the above shows that the communication channels do not fully allow for this to ensue. Yet, many interviewees stress that the farmer-owners are also responsible for acquiring this information. Farmer 2 states: *"There are many farmers who don't use any of the communication channels but are still complaining that they haven't received the information. As a farmer-owner, you have the ultimate responsibility for the company. Then, you are also responsible for taking part in the information"* (2022). Therefore, one can conclude that AgriCo is struggling with its communication channels not promoting dialogues, but that this is not only due to the owner-communication practice's choice of communication channels.

Secondly, the owner-communication activities differ concerning the usage of communication methods. AgriCo has realized that farmers are generally more responsive to external pressure from customers and consumers:

"*We generally approach it from more of a business point of view than saying 'This is for the greater good and for reaching the Paris Agreement'. Approaching it from a business point of view, you address all the farmers. It doesn't matter whether you believe in climate change or not, this is what the customers and consumers are demanding. That's how we tackle it."* (Manager E, 2022)

The above displays how AgriCo takes advantage of customer and consumer demands to communicate the importance of reducing its GHG emissions to the farmer-owners. Manager A exemplifies how one of their largest customers has committed to reduction targets themselves and how this argument has been utilized by AgriCo to convey the importance of reducing on-farm GHG emissions to the farmer-owners. In doing so, AgriCo attempted to elicit acceptance of the Scope 3 Target among the farmer-owners by resonating with one element of the farming practice's teleoaffective structure, i.e., to adhere to the customer and consumer demands.

In addition, numerous interviewees argue that AgriCo early discovered that actors outside the farming practice are not optimal candidates for communicating AgriCo's on-farm sustainability endeavors. Hence, AgriCo is working actively with employing farmers that support AgriCo's ambitious Scope 3 Target, i.e., farmer advocates, to persuade and engage other farmers:

"This is usually more effective as farmers are more receptive to other farmers than they are to AgriCo management." (Manager F, 2022)

"The best to convince farmers are other farmers. To get clear spokespersons among the farmers is the only way to get this happening." (Manager B, 2022)
"We have seen that the greatest motivation is farmer-to-farmer." (Manager E, 2022)

This shows how the owner-communication practice takes advantage of certain farmers to justify the Scope 3 Target. On the one hand, this strengthens the categorization of farmers that has been touched on earlier with the 'sustainable' and 'non-sustainable' farmers. On the other hand, this has proven to be a favorable communication method to convey AgriCo's substantial focus on reducing on-farm GHG emissions. The reason is that all farmers, regardless of their sustainability approach, share several elements through the farming practice's structural elements. Consequently, there is a higher degree of trust between farmers, making them more prone to listen to farmer advocates. This shows how intra-practice actors are more effective in fulfilling the Scope 3 Target's control teleology. Nevertheless, communication still constitutes a challenge for AgriCo moving forward.

4.2.1.4 Partial Conclusion

The above demonstrates that the Scope 3 Target has not fully achieved the control teleology yet. The formalization of the Scope 3 Target into the overarching corporate strategy established a shared element among the organizational practices. However, it only exerted a limited extent of control over the farming practice. Furthermore, by assessing and gaining knowledge about the farming practice's teleoaffective structure and shared understandings, the misalignment of the practices became evident through the apparent conflict of the practices' teleologies. Consequently, the sustainability actors, through the help of the owner-communication practice, found certain communication methods that resonated with the farming practice, intensifying the degree to which the Scope 3 Target achieved the control teleology.

4.2.2 The GHG Questionnaire: An Example of a *Guiding* Overlap

A couple of years ago, AgriCo introduced the GHG Questionnaire. The agriculture practice developed a voluntary questionnaire using an internationally acknowledged methodology for calculating a farm's GHG emissions. The GHG Questionnaire's original purpose was to *"triple the speed of [GHG] reductions on farms by helping farmers identify emissions on farms and providing a clear picture of the actions they can take to reduce emissions further"* (AgriCo, Internal Document, 2022).

In an attempt to effectuate the GHG Questionnaire, various actors have been involved in executing three interdependent sustainability control activities to produce the *guiding* overlap: 1) Embedding operational and economic value for farmers in the GHG Questionnaire, 2) Identifying and selecting the Key Five based on the data received from the farmers, and 3) Framing the Key Five as low-investment efficiency-improving measures.

4.2.2.1 Embedding Operational and Economic Value for Farmers in the GHG Questionnaire

AgriCo's farmers are obliged to fill out the questionnaire annually if they choose to participate. In doing so, the farmers must answer questions regarding various on-farm activities that impact a farm's GHG footprint. Farmer 1 describes this process as a burden: *"To fill out the questionnaire takes a lot of time for us farmers"* (2022). When the farmer has completed the questionnaire, an external advisor visits the farm to validate the quality of the data provided by the farmer and computes the farm's GHG footprint. The farmer can also compare itself to AgriCo's other farmer-owners:

"I mean, even though we have pretty good numbers, I can see that in [X] efficiency, we still have a lot of work to do. That's where the benchmarking comes in because, even though I have a good number overall, you can still do something." (Farmer 3, 2022)

Farmer 3 argues that the benchmarking element motivates farmers to reduce their farm GHG emissions continuously. Manager B confirms the rationale behind embedding a benchmarking element in the GHG Questionnaire: *"The reason is that it's the best way of motivating farmers to change the farming practices"* (2022).

Another aspect of the GHG Questionnaire is that the farmer receives farm-specific suggestions from the external advisor on how to proceed with reducing its GHG emissions: *"The only way to become climate-efficient as a farmer is to utilize the resources you have on your farm. That requires an approach that's not one-size-fits-all"* (Manager E, 2022). This shows how the agricultural practice tries to manage one element of the farming practice's shared understandings, i.e., that each farm is different. It also demonstrates how AgriCo tries to counteract the administrative hurdle by providing operational value for the individual farmers. However, Farmer 3 emphasizes: *"It's not that sophisticated that we can actually use it on farms. [...] I think the quality of the advisors… Um… It's difficult to get good advisors on this. There are not that many"* (2022). Farmer 3 claims

that this is one challenge for AgriCo moving forward: *"To get advisors that can actually see what I can do on my farm, not just overall advice"* (2022). Therefore, the current operational value that the farmers receive from the GHG Questionnaire is limited.

In addition, the GHG Questionnaire is accompanied by a relative financial incentive of X currency units per measurement unit of produce. As filling out the questionnaire is demanding for the farmers, this is important: *"The financial incentive has been crucial in getting my farmer colleagues and me to continue doing it"* (Farmer 1, 2022). The interviews display that this is generally the case for AgriCo's farmers:

"It's effective in the way that it got the farmers to do the [GHG Questionnaire]. If there's money, they will do it." (Manager E, 2022)
"At the end of the day, farmers care about what they're paid." (Farmer 2, 2022)
"I mean, all financial incentives help." (Manager B, 2022)
"Money always talks. For most of the farmers." (Farmer 3, 2022)

By embedding economic value, the GHG Questionnaire addresses the farmers' financial situation, which permeates the teleoaffective structure and shared understandings of the farming practice. However, even though a vast majority of AgriCo's farmer-owners completed the GHG Questionnaire in 2021, they still did not have full participation: *"I called 250 farmers and asked why they don't participate in the [GHG Questionnaire]. Most of them said it's because their [produce] volumes are too low"* (Manager F, 2022). Thus, a relative incentive has impaired the GHG Questionnaire from fully achieving the control teleology.

There is another, yet critical, dimension to the GHG Questionnaire. The high participation rate supplies AgriCo with a large set of data: *"I think getting to a point where we have a database to approach and identify what to do has been the purpose"* (Manager C, 2022). Farmer 3 also underlines this: *"Well, it's more about providing [AgriCo] with data"* (2022). Hence, the GHG Questionnaire seems to have created the most value in its data collection, as opposed to its attempt to embed operational and financial value to the farmers. Nevertheless, through the GHG Questionnaire, the agriculture practice has established a shared activity between the farming, agriculture, and sustainability practices.

4.2.2.2 Identifying and Selecting the Key Five Based on the Data Received from the Farmers

Based on the data acquired from the GHG Questionnaire, the agriculture practice identified five areas that explain more than three-quarters of the variation in climate impact between farms: *"If we compare a farm with a low carbon footprint and a farm with a high carbon footprint, they differ within these areas"* (Manager A, 2022). Manager A continues: *"Even though each farmer has the responsibility for their own farms, management has the responsibility to ensure that the activities that are either suggested or forced are realistic"* (2022). Based on this, the sustainability practice developed the Key Five – one element of the sustainability practice's shared understandings – which has been actively used by AgriCo's sustainability actors to convey the five most climate-effective actions that farmers can undertake. The fact that these have been derived from data seems to have helped the sustainability actors to establish the Key Five among the farmers: *"You need to believe in the statistics"* (Farmer 3, 2022). Furthermore, Manager E points out:

"The problem with these five areas, it's not like 'Oh, these areas we've never heard about before'. Rather, these are things that farmers always try to improve. It's like EBIT or whatever, they're not new. But still, even though they're not new, they're not as good as they could be." (2022)

In this way, the Key Five aligns with the teleoaffective structure and activities of the farming practice. Nevertheless, the above also demonstrates that AgriCo still struggled with getting farmers actually to pursue the suggested activities. Manager E continues:

"I think the conflict is around that the farmers are usually good at maybe one or two of them. Then, they target that one and say, 'Why the hell do we need to focus on [X] efficiency? I am very [X] efficient'. So, these are the kind of discussions we've had. We say like 'If you're good at all of these, you don't have to do anything' but overall, there's a potential for almost all farmers to improve in more than one of these areas. Also, the difficulty has been to 'So what, we know these areas are important, but it has not happened [yet], so why is it going to happen now? What is the difference now?'. Those discussions we've had as well." (2022)

4.2.2.3 Framing the Key Five as Low-Investment Efficiency-Improving Measures

In an attempt to convince the farmers to undertake the activities, the sustainability practice translated the Key Five into low-investment efficiency-improving measures: "*You can talk*

management language, and you can talk farmer language. To keep it simple and understandable is the only way to get the farmers on board" (Farmer 3, 2022).

First, AgriCo quickly discovered that improvements within these areas are connected to a lower GHG footprint and a higher profitability figure. Manager B states: *"The good thing is that reducing [GHG emissions] goes hand in hand with improving efficiency. So, the good thing is that those are linked, and of course, this also helps us to convince the farmers, because they improve their profitability if they implement some of these levers, but they will also affect the [GHG emissions]."* (2022)

As business owners, farmers are highly concerned with getting the highest financial return on their production. Therefore, as efficiency-improving measures generally imply a future reduction of costs, this way of phrasing the Key Five conforms to one element of farming practice's teleoaffective structure, i.e., efficient production. This shows how the sustainability practice, with support from the owner-communication and agriculture practices, managed to frame The Key Five in a way that facilitates a sustainability-farming overlap.

Second, numerous interviewees argue that AgriCo chose these areas because they do not generally require farmers to make major investments. Instead, these require incremental yet climate-effective changes in various day-to-day farming activities. This aligns with the farming practice's shared understandings as farmers, in general, have been under economic pressure for several years. Farmer 3 adds:

"You are actually touching on something I haven't thought of. I've been one of them saying that it doesn't require large investments. If you're a farmer who wants to progress your business, you do the investments anyway as part of developing your business. However, if you are not a farmer like that, it requires investments. But, um, I haven't thought of it in that way." (2022)

The above displays how the Key Five may not require additional significant investments for future-minded and business-oriented farmers because they would have done the investments anyway. However, they may incur additional costs for the non-progressive farmers. Thus, this way of framing the Key Five did only echo the farming teleology of a few farmers, which hampered the sustainability-farming overlap.

4.2.2.4 Partial Conclusion

The above shows that the GHG Questionnaire did neither fully achieve the control teleology nor the sustainability teleology. Through the attempt to embed economic and operational value, AgriCo tried to resonate with the farming practice's teleoaffective structure. Although the economic value contributed to the control teleology by getting a vast majority of the farmers to complete the GHG Questionnaire, the intended operational value embodied in the benchmarking and advisory functions was not realized. However, through the identification and framing of the Key Five, AgriCo managed to resonate with the farming practice's teleoaffective structure and shared understandings to a higher extent. Conclusively, the GHG Questionnaire alone did not make farmers actively pursue activities. However, the result of the GHG Questionnaire, i.e., the Key Five, created a sustainability-farming overlap for future sustainability control tools to take advantage of.

4.2.3 The Incentive Model: An Example of an *Enforcing* Overlap

"To reach our 2030 target, we need to accelerate because from [AgriCo's baseline year] to now, we have reduced by [less than a third of the goal]. It's not going to be enough to engage in general. We need some kind of hard-core incentive to do this." (Manager A, 2022)
"However, we did not see a huge effect on the climate impact with the [GHG Questionnaire]. That's where we want to be heading. It's no longer only about seeing your climate impact. Now, the farmers also have to do it." (Manager E, 2022)

To accelerate the reduction of farms' GHG emissions, AgriCo recently launched the Incentive Model, which is a point-based system developed in collaboration between AgriCo's farmers and management, to reward past and future on-farm sustainability actions. In an internal document, AgriCo contends: *"The principle is simple: The more climate activities [AgriCo] farmers do, the more they will be paid for their [produce]"* (AgriCo, Internal Document, 2022). Furthermore, as AgriCo launched the Incentive Model close in time to this study, the future practical implications of the model will continue beyond our study.

In an attempt to put the Incentive Model into action, multiple actors within AgriCo have performed three interrelated sustainability control activities to produce the *enforcing* overlap: 1) Developing

the Incentive Model together with the farmer-owners, 2) Altering the fundamental compensation model, and 3) Tying the Incentive Model to the GHG Questionnaire.

4.2.3.1 Developing the Incentive Model Together with the Farmer-Owners

Although AgriCo launched the Incentive Model recently, discussions regarding the model began among the BoD representatives a couple of years ago: *"We started to discuss what is happening now with the new Incentive Model four years ago"* (Farmer 2, 2022). Thus, AgriCo has spent years developing and improving the model. Several interviewees emphasize that this has been an iterative process involving the farmers to a great extent: *"This model was developed together with the farmers, with the farmers being very involved and engaged"* (Manager V, 2022). Similarly, AgriCo communicates the Incentive Model as *"developed by farmers for farmers"* (Internal Document, 2022). However, the interviewees have different views on the degree to which this is true.

A prototype of the Incentive Model was designed by a few farmers of the BoD, which, subsequently, was presented to the BoR. After that, the BoR examined the model, gathered thoughts from non-elected farmers, and delivered feedback to the BoD. This implies that farmers have indeed been involved in developing the model, but to varying extents:

"[Developed by farmers for farmers] is a culture, a DNA thing, but also a governance thing, in terms of how we govern the company, and who makes the decisions." (Manager C, 2022)
"We have had a lot of inputs the last months which we have taken into account and changed the system, but that was more smaller things, I would say. The big frames were already decided." (Farmer 3, 2022)
"There haven't really been any discussions in my local meetings, only a webinar where you were able to put forward some opinions, but there wasn't any follow-up regarding the impact of our opinions. They haven't been great in communicating what lies behind the decisions or actively involving the farmers in the decision-making." (Farmer 1, 2022)

The involvement of at least several farmers elicited two significant changes to the first version of the model. Firstly, AgriCo's farmers would initially be compensated based on their individual GHG footprint. However, as a vast majority of the farmers were against this, AgriCo altered the model: *"At first, we had a completely different view on the [Incentive Model], with the lower the [GHG footprint], the higher the financial compensation. However, we realized this was not the way to go,*

as this would create a divide between the farmer-owners and result in endless discussions" (Farmer 2, 2020). Consequently, as of today, the Incentive Model is instead a point-based system by which a farmer receives points for pursuing a variety of emission-reducing actions:

"The principle for allocating points has been to correlate the points to climate impact. Therefore, the points are allocated in terms of how important they are to reduce the climate impact. This is only true for the points that have climate impact because there are points considering, for example, knowledge-building and biodiversity that are not climate-focused." (Manager E, 2022)

Secondly, selecting which on-farm actions to allocate points to was initially based on data obtained through the GHG Questionnaire and member surveys. Accordingly, most points are connected to actions that reduce a farm's GHG footprint, whereas the Key Five, in particular, accounts for more than 60% of the total number of points. However, as mentioned by Manager E above, the Incentive Model also rewards a few actions that do not directly correlate to a lower GHG footprint, but this was not initially the case. Manager E continues:

"But when we introduced the first version, we didn't have anything about biodiversity in it. Then, the farmers were really like 'This is not going to work, the balance is going to be completely wrong'. Then, the model changed a bit, so now we have introduced more areas that are reflecting other areas than climate." (2022)

As previously discussed, all farms are very different from each other, which is an important element of the farming practice's shared understandings. Consequently, including areas beyond those covered in the Key Five, e.g., biodiversity, constitutes an essential development: *"It's been developed in a way where it provides a lot of flexibility for the farmers to pick and choose what fits their farm. So, it's actually a way of manage the farmers to go in different directions"* (Manager C, 2022). However, several interviewees argue that this remains a point of conflict in AgriCo as many farmers still believe that AgriCo undermines biodiversity-related actions.

Furthermore, the flexibility of the Incentive Model makes some points inherently contradict each other: *"You will not be able to score [X/X] because some points are contradictory. [...] So, as a farmer, you will have to choose which one is more important and which to prioritize"* (Manager A, 2022). Manager A continues: *"A lot of education on this model will be required. To educate*

farmers about developing a strategy aimed at reaching as many points as possible on their particular farm, which will be difficult, as this will be different from farm to farm" (2022). As displayed earlier, AgriCo has struggled with farmers' willingness to acquire knowledge regarding on-farm sustainability, which is why AgriCo decided to assign points for knowledge-building activities.

Although not all of AgriCo's farmers have been involved in the development of the Incentive Model, they are still optimistic about it: *"The [Incentive Model] is a really good initiative"* (Farmer 1, 2022). Furthermore, Manager C emphasizes how the cooperative structure of AgriCo has contributed to this being the case:

"By having this [cooperative] structure, we have built a more robust system than we would have had. When we talked about it 3 years ago, we were just talking about putting money at [GHG emissions] per [measurement units of produce]. Now, we have built a much broader system, and I don't think we would have done that without the structure we have, so in the end, we have built a much better product. [...] If we would have launched the [Incentive Model] 1.5 years ago, we would not have had the [Key Five], the biodiversity [...]. I think we have built a much broader program that will actually help the farmers to reduce their [GHG emissions]." (2022)

This shows how the continuous reviewal of the Incentive Model, which has emerged through the iterative process, has helped the model to fulfill the sustainability teleology while, at the same time, echoing the farming practice's teleoaffective structure and shared understandings. In this way, AgriCo has developed a model that, at large, is accepted by the farmers, which has assembled a sustainability-farming overlap.

4.2.3.2 Altering the Fundamental Compensation Model

For decades, AgriCo has compensated farmers based on the quality of their produce. However, the Incentive Model implies that the price farmers receive will not only depend on the quality of their produce, but also on the amount of sustainability-related activities they pursue. In practice, this implies a redistribution of money among the farmers, as explained by Manager C:

"So, it's a redistribution of funds. It works in the way, we take out [a certain amount of money] from the average [produce] price. Then, we say 'You can get points. The more points you get, the

more funds you get back on your [produce] price.' [...] We take something from everyone and give more back to the better-performing ones." (2022)

This implies that the Incentive Model alters the fundamental compensation model of AgriCo, which has remained unchanged for a very long time. This has been important because farmers, as business owners, are motivated by money: *"The farmers want to do good but they also want to get paid"* (Manager A, 2022). Receiving the highest financial return on high-quality produce is a central element of the farming practice's teleoaffective structure. Hence, by changing the prerequisites on which farmers' are paid for their produce, the Incentive Model allows the farmers to run their individual businesses within the sustainability teleology's periphery. From a control teleology point of view, this linkage is effective. This is because if a farmer wants to get the highest possible price for their produce, the farmer must pursue a highly ambitious on-farm sustainability strategy.

4.2.3.3 Tying the Incentive Model to the GHG Questionnaire

All farmers that want to receive the economic benefits of the Incentive Model must fill out the GHG Questionnaire annually. One reason why is that the collection of farm-specific data is essential in ensuring that AgriCo compensates the farmer-owners on equal terms:

"Because, without data from farms, we can't document who has taken what action and if you can't document truly if someone has better [X] efficiency on farm than someone else, then, how do you manage the whole payment system?" (Manager C, 2022).

Tying the Incentive Model to the GHG Questionnaire has had several outcomes. Before the Incentive Model was launched, nearly all farmers, besides a few small farms, filled out the GHG Questionnaire annually. Nevertheless, tying the Incentive Model to the GHG Questionnaire has increased this number additionally: *"We have seen a quite large increase in the participation rates for the [GHG Questionnaire] now when it's also connected to the [Incentive Model]"* (Manager E, 2022). The increase stems primarily from smaller farmers who earlier did not consider the monetary incentive to outweigh the required resources. As the future price they receive for their produce will de facto depend on a sustainability dimension, filling out the GHG Questionnaire now becomes valuable for them as well.

As previously mentioned, AgriCo failed to embed operational and economic value for the farmers in the GHG Questionnaire. Nevertheless, by tying the Incentive Model to the GHG Questionnaire, the various aspects of the GHG Questionnaire, e.g., the farm-specific improvement areas, the advisors, and the benchmarking function, become valuable for the farmers from an operational and economic point of view. This shows how building the Incentive Model on the GHG Questionnaire makes them complementary, reinforcing the extent to which the GHG Questionnaire achieves the control teleology.

4.2.3.4 Partial Conclusion

The above illustrates that the Incentive Model points toward achieving the sustainability and control teleologies. The development of the model, together with a large number of farmers, allowed for an iterative process, which resulted in a model that embodies a sustainability-farming overlap. Furthermore, altering the fundamental compensation intensifies this overlap by making the sustainability and farming teleologies reinforce each other. Lastly, tying the Incentive Model to the GHG Questionnaire aims to realize the sustainability-farming overlap that was not achieved by the GHG Questionnaire alone. Due to the Incentive Model being newly introduced, we can not argue for a concrete outcome of the Incentive Model. However, our findings point toward the Incentive Model being the most effective yet in fulfilling the sustainability teleology.

5. Discussion

Through the lens of Ligonie's (2021) practice-based framework, we have identified that AgriCo's actors enacted three specific sustainability control tools – the Scope 3 Target, the GHG Questionnaire, and the Incentive Model – to perform a range of interrelated sustainability control activities aimed at reducing its Scope 3 GHG emissions. This has created sustainability-farming overlaps, which, although to varying degrees, have allowed the sustainability control tools to fulfill the sustainability and control teleologies. The discussion of our findings consists of two parts and aspires to juxtapose our empirics with the extant literature. Firstly, we discuss the importance of a sustainability control tool resonating with AgriCo's farming practice's shared understandings and teleoaffective structure to achieve the control teleology effectively. Secondly, we discuss how horizontal control, by employing intra-practice advocates and embedding intra-practice competition elements, may be more effective in controlling AgriCo's farming practice. In doing

so, we contribute to previous literature on how organizational actors may enact MCSs for sustainability to drive organizational change and paradigm integration.

5.1 A Resonating Approach in the Pursuit of Controlling Suppliers

In line with previous research (Contrafatto, 2014; Ligonie, 2021; Bui and de Villiers, 2017), our findings illustrate that the degree to which the sustainability control tools fulfill the sustainability and control teleologies depends on the extent to which they resonate with another practice's structural elements. In particular, AgriCo has struggled to align the sustainability control tools with the farming practice's shared understandings and teleoaffective structure. This stems from the farming practice's distinct teleology. Thus, to address this inherent diversity in the practices, it has been important for AgriCo's actors to enact the tools in a way that reconciles the practices. Ligonie (2021) emphasizes the importance of creating overlaps between intra-organizational practices. Our findings, however, demonstrate that this is particularly important in controlling actors across organizational boundaries, e.g., suppliers. Hence, we contribute to the findings of Spence and Rinaldi (2014) by illustrating yet another way in which *"sustainability as a regime of practice is enacted, maintained and transformed not just within one organization, but across the organizational boundaries of the supply chain"* (p. 449).

Furthermore, Crutzen et al.'s (2017) findings suggested that companies mainly rely on cultural controls. On the contrary, AgriCo's actors have enacted several formal sustainability control tools in an attempt to institutionalize new ways of 'doings' and 'sayings' among the farmer-owners (Contrafatto, 2014). In this way, our findings also contribute to Laguir et al.'s (2018) study by demonstrating that AgriCo primarily employs formal controls to manage its suppliers. However, prior research (Crutzen et al., 2017; Contrafatto, 2014; Laguir et al., 2018; Bui & de Villiers, 2017) has emphasized cultural and informal controls' role in establishing a collective understanding of sustainability. Without this mutual understanding, resistance and conflicts are likely to arise, hampering the effectiveness of formal controls. The aforementioned is somewhat demonstrated in AgriCo's struggle to resonate with the farming practice's multi-faced teleology.

Despite the latter, our empirics demonstrate how AgriCo's sustainability actors still managed to create sustainability-farming overlaps. This was accomplished by AgriCo's actors committing to perform several interrelated sustainability control activities. This formed iterative processes

involving the farmer-owners, which gradually reconciled the sustainability teleology with the farming practice's structural elements (Contrafatto & Burns, 2013; Contrafatto, 2014; Bui & de Villiers, 2017; Ligonie, 2021; Beusch et al., 2022). In particular, AgriCo continuously framed sustainability as a business case (Contrafatto & Burns, 2013; Spence & Rinaldi, 2014; Beusch et al., 2022). While AgriCo initially explained sustainability to the farmer-owners as a means of reaping a competitive advantage, this way of framing sustainability lacked the mastery to resonate with the farming practice's short-term economic objectives (Bui and de Villiers, 2017; Beusch et al., 2022). Accordingly, in the Key Five, AgriCo's sustainability actors instead communicated sustainability actions as low-investment efficiency-improving measures. In this way, sustainability was framed within the periphery of the farming practice's teleoaffective structure and shared understandings (Contrafatto & Burns, 2013), which increased the relevance of sustainability among the farmer-owners (Spence & Rinaldi, 2014; Ligonie, 2021). Furthermore, the development of the Incentive Model embodies yet another iterative process that, by allocating points to biodiversity and animal welfare, created a resonating sustainability-farming overlap (Contrafatto & Burns, 2013; Beusch et al., 2022). Thus, AgriCo's iterative processes enabled the sustainability control tools to ultimately become controlling because this allowed the farmer-owners to *"interpret and shape sustainability control activities coherently with their practices' teleologies"* (Ligonie, 2021, p. 14). Thus, our study shows that Ligonie's (2021) approach is similar to Contrafatto's (2014) view that *"institutionalization is conceived as a cumulative and dynamic process"* (p. 418).

Moreover, our findings point out that one of AgriCo's greatest challenges in creating resonating overlaps has been a lack of dialogues with the farmer-owners about sustainability-oriented initiatives. Thus, our findings support prior studies' emphasis on the importance of high-quality communication in making MCSs for sustainability controlling (Contrafatto & Burns, 2013; Spence & Rinaldi, 2014; Contrafatto, 2014; Bui & de Villiers, 2017; Ligonie, 2021; Beusch et al., 2022). This aligns with Beusch et al.'s (2022) findings by showing how this has been particularly important for managing the farmer-owners different views on sustainability at AgriCo. As such, our findings contribute to Ligonie (2021) by stressing how high-quality communication and dialogues become even more critical in creating overlaps across practices in which teleologies are distinct from each other, e.g., across practices along a company's supply chain.

5.2 The Power of Horizontal Control in Controlling Suppliers

Prior research has mainly stressed the importance of key organizational actors in driving paradigm integration and organizational change (Contrafatto & Burns, 2013; Bui & de Villiers, 2017, Beusch et al., 2022). In contrast, our findings illustrate that AgriCo's sustainability practice discovered that the most effective way to fulfill the control and sustainability teleologies is to employ a farmer-to-farmer approach (Contrafatto, 2014; Spence & Rinaldi, 2014). Hence, we contribute to Beusch et al. (2022) by emphasizing the role of suppliers in effectuating the sustainability control tools. This horizontal control approach has been embodied in two different ways at AgriCo.

Firstly, our empirics display that one of AgriCo's greatest challenges has been for the farmer-owners to comprehend why the substantial focus has been on reducing on-farm GHG emissions instead of other on-farm sustainability dimensions, e.g., biodiversity, carbon sequestration, and animal welfare. This illustrates a conflict between the farming and sustainability practices' shared understandings and teleoaffective structures which has hampered the fulfillment of the control teleology significantly (Bui & de Villiers, 2017). In an attempt to resolve this discrepancy, AgriCo's sustainability actors have utilized 'sustainable' farmers, i.e., farmer advocates, to get the 'non-sustainable' farmer-owners on board (Spence & Rinaldi, 2014; Contrafatto, 2014). This has been effective not only because of the higher degree of trust existing in the farmer-to-farmer relationship (Spence & Rinaldi, 2014) but also because of the farmer advocates' ability to resonate with the various dimensions of the farming practice in a more effective way (Contrafatto, 2014). Therefore, our findings contribute to the literature by emphasizing how intra-practice actors may be better candidates for effectuating the sustainability control tools (Spence & Rinaldi, 2014; Ligonie, 2021).

Secondly, our findings demonstrate how AgriCo has embedded farmer-to-farmer competition mechanisms in the sustainability control tools. In particular, our interviews displayed that the GHG Questionnaire's benchmarking element motivated farmers to reduce their GHG emissions additionally. This embodies a horizontal control mechanism as the competition between farmers is what contributes to the fulfillment of the sustainability and control teleologies (Spence & Rinaldi, 2014). However, AgriCo discovered that the GHG Questionnaire's benchmarking element was insufficient to do this fully. As a result, they intensified the intra-practice competition in the Incentive Model. By redistributing funds, AgriCo's sustainability actors implicitly created an ideal

type of a sustainable farm (Spence & Rinaldi, 2014). Furthermore, by allocating a certain number of points to specific activities, AgriCo's sustainability actors provide the farmers with a periphery of which sustainability activities are 'worthy' to pursue. With the use of these two intra-practice competition elements, AgriCo attempts *"to classify and influence the performance and behavior of farmers"* (Spence & Rinaldi, 2014, p. 446). In doing so, the purpose is to fulfill the control and sustainability teleologies.

6. Conclusion

6.1 Summary

To combat climate change and our 'burning planet', the business community must forcefully and ambitiously accelerate its efforts toward reducing its GHG emissions. This study showcases how AgriCo, a company operating in one of the most polluting industries, attempts to control its Scope 3 GHG emissions. Drawing on nine in-depth interviews and Ligonie's (2021) practice-based framework, our study illustrates how three of AgriCo's sustainability control tools – the *Scope 3 Target*, the *GHG Questionnaire*, and the *Incentive Model* – were enacted by AgriCo's sustainability actors. In doing so, they produced three different sustainability-farming overlaps – *establishing, guiding,* and *enforcing* – that, to varying extents, fulfilled the control and sustainability teleologies. Moreover, our contribution to the extant literature on MSCs for sustainability is dual. Firstly, our study highlights the importance of sustainability control tools to resonate with the structural elements of the practice that it aims to control. At AgriCo, with the sustainability and farming teleologies being significantly different from each other, aligning the practices' teleoaffective structure and shared understandings was integral in creating the sustainability-farming overlaps. This was accomplished through iterative processes involving the farmer-owners. Secondly, our study contributes by shedding light on how horizontal control may be more effective in fulfilling the control teleology. At AgriCo, horizontal control is embodied not only in the employment of farmer advocates but also in embedding farmer-to-farmer competition elements in the sustainability control tools. Conclusively, our study provides another example of how companies may utilize MSCs for sustainability in driving paradigm integration and organizational change.

6.2 Limitations

Nevertheless, our study is not without limitations. First, our findings particularly explain how sustainability actors at AgriCo, a cooperative operating in the agriculture industry, enact sustainability control tools along its supply chain. Hence, we want to emphasize that our findings may not apply to case studies on companies that (i) operate in another industry, (ii) have a different governance structure, and (iii) have a different supply chain structure. Secondly, the examined sustainability control tools at AgriCo are relatively newly introduced. Thus, studying AgriCo at a later point in time could have added to and nuanced the contributions of this study.

6.3 Suggestions for Future Research

We urge future research to explore the role of MCSs for sustainability in reducing Scope 3 GHG emissions. Specifically, we encourage researchers to take advantage of the explanatory power of practice-based theories in examining how organizational actors may enact sustainability control tools in the most effective way. Furthermore, we believe that our findings on the effectiveness of horizontal control constitute an intriguing avenue of future research. In particular, we are excited to see whether this holds true for companies operating in another industry and with different governance and supply chain structures. Lastly, we believe that the literature on MCSs for sustainability in supply chain settings is a highly interesting yet relatively novel territory that deserves more attention from the research community.

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8. Appendix

8.1 Appendix 1: Interview Details

Date	Position	Setting	Recording	Length
19/10/22	Manager A	Online (Microsoft Teams)	Yes	56:08
20/10/22	Manager F	Online (Microsoft Teams)	No	55:00
20/10/22	Farmer 1	Phone	Yes	48:29
21/10/22	Manager D	Online (Microsoft Teams)	Yes	57:33
24/10/22	Manager E	Online (Microsoft Teams)	Yes	54:31
4/11/22	Farmer 2	Online (Microsoft Teams)	Yes	1:01:49
4/11/22	Manager B	Online (Microsoft Teams)	Yes	1:01:04
9/11/22	Farmer 3	Online (Microsoft Teams)	Yes	53:39
18/11/22	Manager C	Online (Microsoft Teams)	Yes	29:31
				μ = 53:04.89

8.2 Appendix 2: Interview Guide Extract

Formalities:

- Introducing the aim of the study and the research question.
- Clarifying concepts specific to the study, e.g., management control systems for sustainability.

Background:

- Respondents were asked about their specific role at AgriCo and what their work related to Scope 3 entailed.
- What are the main reasons why AgriCo works with sustainability?
- How has the sustainability work related to Scope 3 evolved during your time at AgriCo?
- What are the greatest challenges in addressing Scope 3 for your specific area of work right now?

Sustainability control tool questions:

- To what extent have you been involved in the process of designing the control tools or the future sustainability direction at AgriCo?
- Elaborate on the development of the Scope 3 Target. Why is there such a target and how has it been employed in the organization?
- Elaborate on the development of the GHG Questionnaire. What was the initial idea behind developing this tool? How has its purpose and importance changed over time?
- Elaborate on the development of the Incentive Model. What are some challenges and opportunities related to it? How has it been received throughout the organization?
- What drives or motivates the organizational practices to continue to work toward the sustainability goals and sustainability related to Scope 3 in general?
- Are there any specific challenges to having a coherent sustainability strategy throughout the supply chain?
- How does AgriCo ensure that all practices align with the overarching sustainability strategy?

Concluding remarks:

- Do you have anything you would like to add or emphasize to our discussion?

8.3 Appendix 3: The Structural Elements of AgriCo's Practices

Structural elements / Practice	The sustainability practice	The farming practice	The owner-communication practice	The agriculture practice
Teleoaffective structure	To change business-as-usual practices To reduce Scope 3 GHG emissions To maintain a competitive sustainability position in the industry	To get the highest financial return on their production To run their individual companies To deliver high-quality produce complying with AgriCo's standards To adhere to customer and consumer demands	To act as a middleman between agriculture and sustainability management and farmers To promote smooth dialogues between management and farmers	To disseminate farm-specific knowledge to management To sustain and nurture relationships with farmer-owners To administer high-quality farm-specific data To secure the highest value for the farmers
Rules	Multilateral climate agreements; National climate targets; Company-specific targets; International and national reporting standards; Industry-specific standards	International and national legislation; Company-specific Code of Conduct	Company-specific Code of Conduct	National legislation; Industry-specific standards; National Industry-specific initiatives
Shared under-standings	The Key Five The transversal nature of the sustainability practice	The efficient production of high-quality produce The well-being of animals	The preservation of AgriCo as a farmer-owned cooperative	The importance of staying up-to-date with the sustainability transformation of agriculture

	The ambition to be a state-of-the-art sustainability actor within the industry	The long- and short-term economic profitability The fact that each farm and farmer-owner are unique The farm-specific know-hows	The communication know-hows	
Activities	Defining, implementing and evaluating sustainability directions Performing a range of sustainability control activities Coordinating sustainability initiatives across the organization Providing sustainability expertise to other practices	Running various on-farm activities in the pursuit of fulfilling the farming teleology	Communicating on-farm initiatives developed by the sustainability practice to farmers Ensuring dialogues with the farmer-owners Designing, executing and evaluating member questionnaires	Acquiring, educating and aiding external advisors Educating organizational members about on-farm activities Managing on-farm issues Being in charge of the climate calculations
Actors	Manager A Manager B Manager C	Farmer 1 Farmer 2 Farmer 3	Manager D	Manager E Manager F