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**How have two Norwegian organizations managed to enhance attitudes for change among employees to develop and use digital sustainability solutions?**

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**GRA 19703 Master Thesis**

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*Yours sincerely,*

*Anna Camilla Larsen Øynes and Rikke Nysæter Ørjevik*

## Abstract

This master thesis aims to investigate how Mesta and Norsk Gjenvinning have enhance attitudes for change among employees in order to implement digital sustainable solutions. Through a qualitative method and a narrative approach we have been able to see patterns between the two organizations.

We have discovered that Mesta and Norsk Gjenvinning had surprisingly similar involvement of the employees. Both organization emphasized that employee`s attitudes had been essential to reach their objectives. To strengthen attitudes that enforced a culture for organizational sustainable change both organizations emphasized that transparency, openness and involvement were essential. Mesta focused especially on including the employees and encouraged them to come up with sustainable solutions that could be implemented. Whereas, Norsk Gjenvinning focused on using informal employees to strengthen the change message.

Moreover, digitalization has made both organizations more sustainable and efficient. Firstly, digitalization has made it possible for Mesta and Norsk Gjenvinning to implement systems that enables them to get an overview over the utilization and environmental cost of their machines and projects. Secondly, it has made it possible to manage and view the actions in order to become more sustainable. Further, we have throughout this thesis seen how broad the term sustainability is, and that both organizations have emphasized the inter-relationship between people, planet and profit as a part of their sustainable work.

## 1.0 Introduction to thesis

Today's society consists of constant and quick changes in structures and trends that affect people and organizations. A large variety of factors contributes to this external change, making it essential for organizations to adapt to the different trends and demands. One change that has evolved rapidly over the last few decades is the focus on sustainability. Sustainable development can be a source of success, innovation, and profitability for organizations (Baumgartner, 2014). There has been a considerable change in how organizations are expected to behave and relate to sustainability. Thus, sustainable development has become necessary to sustain economic progress (White, 2009).

Another construct that undoubtedly has impacted society and how organizations operate is digitalization. Digitalization affects human activity in several ways, and it has changed how we communicate, create and consume (Carnerud et al., 2020). Besides, it has altered information flow and how we process knowledge. Organizational change has been present as long as organizations have existed. However, development such as digitization and globalization has increased the importance and quantity of organizational change (Faupel & Helpap, 2021). Hence, no organization is immune to the effects of digitalization. Therefore, this thesis will be centered on sustainability and digitalization, including communication, attitudes towards change, culture and climate, and organizational culture. Nevertheless, the challenges of sustainable change and digitalization processes are complex. They create unique opportunities but also challenges and a need for an increased response time to adjust accordingly. Due to the difficulty in keeping organizational design updated and the constantly changing value proposition, there is still no ultimate design for operating an organization sustainably (Ordieres-Meré & et al., 2020). However, we believe that for organizations to survive in the rapidly changing context where change is becoming the norm, they are dependent on employees' attitudes to change internal structures to adapt to the external environment.

For this reason, the aim of our study is to find answers to the following question:

*How have two Norwegian organizations managed to enhance attitudes for change among employees to develop and use digital sustainability solutions?*

We will present how Mesta and Norsk Gjenvinning have undergone change journeys with an emphasis on sustainability and digitalization. Through a qualitative method and narrative theory, we aim to get insight into the patterns and similarities between the two organizations. The main reason why we chose these organizations is because of their significant influence on society and responsibility to act sustainably. In addition, they are organizations that have applied new technology to make their sustainable approach more effective. We will compare Mesta and Norsk Gjenvinning and substantiate the varying patterns based on the stories told by our informants. We have interviewed people from the top management that has worked closely with change projects in the organizations.

We anticipate hearing engaging stories about how the two organizations recognized the importance of sustainable development to contribute to the greater good. Besides, we believe we will hear stories about how the change process brought out even more potential in the organizations. Due to the change's digitalization has created, we also anticipate hearing stories about how new technology has contributed to more effective sustainable actions. We believe that organizations generally succeed with change projects when employees are engaged and motivated for the processes and when the change fits the organization's image and objective.

### ***1.1 Presentation of Mesta***

Mesta was established in 2003 when the manufacturing activities in Statens Vegvesen were established as its own joint-stock company. Mesta builds, maintains, and develops Norwegian infrastructure on behalf of public and private customers. As Norway's leading player in operation and maintenance of roads and road electricity, they have a natural responsibility to ensure safe and solid infrastructure in line with the needs of customers, the environment, and society (Mesta.no). Based on this, Mesta's corporate sustainability strategy includes three UN sustainable development goals where the company can make significant positive contributions; 5 (*Gender equality*), 9 (*Industry, innovation, and infrastructure*), and 13 (*Climate action*) (Mesta.no). Besides, Mesta has a unique position regarding sustainability since their business activities focus on maintaining what already is. Mesta believes that having a sustainable business with a focus on reducing the climate footprint, gender equality, and innovation will attract a greater diversity of gender and backgrounds and ensure increased loyalty among the current



and future employees. Besides, innovation and digitalization are vital tools for Mesta's sustainable development.

Moreover, a sustainability challenge Mesta is currently facing is the CO2 emissions. The climate reports from recent years show that 85-88% of the organization's total emissions come from machines and vehicles (Mesta.no). Therefore, this is where the most considerable effort is made, thus, modernizing and replacing the machine park and reducing idling and fuel consumption. Mesta has set specific goals to decrease their climate footprint and environmental impact. For instance, from 2021 to 2025, 50% of the purchased vans will be electric, and idling will be reduced by 25% (Mesta.no).

### ***1.2 Presentation of Norsk Gjenvinning***

Norsk Gjenvinning is Norway's largest provider of recycling and environmental services (norskgjenvinning.no). The company was founded in 1926 in Oslo, Norway, by Adolf Jahr. It started as a small family junkyard, which evolved over decades and ended up as an organization with sixteen recycling plants that focused on various types of waste. In 1999, the family decided to sell Norsk Gjenvinning to a French organization called Veolia Environmental Services. Veolia owned several international waste, water, and energy services subsidiaries. In 2011 after investing in the organization for twelve years, Norsk Gjenvinning was sold to Altor Fund III. From being owned by a French multinational group to having the first PR company that bought them, there were several changes involved. Norsk Gjenvinning's new owners initiated improvements to the organization in strategic, economic, and ethical terms to make it more attractive for future owners (Serafeim & Gombos, 2015). This was the beginning of their first change process within sustainability.

Moreover, Norsk Gjenvinning mainly focuses on UN sustainable development goals number 8 (*Decent work and economic growth*), 11 (*Sustainable cities and communities*), 12 (*Responsible consumption and production*), 13 (*Climate action*), and 16 (*Peace justice and strong institutions*) to ensure a sustainable impact of their business. The organization focuses on a circular economy. Thus, they emphasize that it is the future solution for today's resource problem (Ngggroup.no). Norsk Gjenvinning has a unique position regarding sustainability due to its core business which centers around managing waste and raw materials. Sustainability has been an essential aspect of the organization for

several years, highlighting the interaction between responsibility for the environment, social responsibility, and the management of the concern as a whole. In their sustainability report, they highlight how they strive to produce new raw materials of the waste, contribute to sustainable demolition, sustainable industry services, and ensure effective operations that minimize their climate footprint (NG Bærekraftsrapport, 2021). Norsk Gjenvinning has identified five trends that are likely to affect their actions. These are; transition to effective circular economy, expectations of diversity and quality, increased expectations for transparency reporting and sustainable awareness, focus on nature and biodiversity, and climate change management (NG Bærekraftsrapport, 2021).

## **2.0 Theoretical background**

### ***2.1 Introduction***

Our topic is highly relevant for today as well as for the future. This thesis concerns sustainability and digitalization within change processes. Thus, our research question could be answered by a multitude of theoretical perspectives. Since this thesis has a narrative approach, we aim to outline the patterns between Mesta and Norsk Gjenvinning. Thus, how they have managed to enhance attitudes toward change during their sustainable change processes and used digital solutions. Therefore, we have considered theory about sustainability, sustainable digitalization, culture and climate, communication of the change message, narratives of change, organizational change, and attitudes toward change as most relevant.

### ***2.2 Theory***

#### ***2.1 Sustainability***

The Brundtland Commission has defined sustainable development as “*an ethical standard, and business sustainable development tends to be discussed as a responsibility toward society*” (Baumgartner, 2014, p. 259). Sustainability is still difficult to grasp since there is no ultimate design for operating an organization sustainably because of the constant changes among customers and value propositions (Ordieres-Meré & et al., 2020). One of the most contemporary understandings of the concept is the triple bottom line (TBL), which implies that there are three interdependent pillars: people, planet, and profit (Brien et al., 2015).

Organizations use the TBL to evaluate their performance. However, how organizations measure their TBL can be challenging since there is no set method for calculating the TBL (Brien et al., 2015). Svenson and colleagues (2019) highlight the importance of the inter-relationship between these three pillars to obtain real sustainable development and suggest that the whole is greater than the sum of its parts. As a consequence, sustainable development for organizations is reliant on a proper assessment of the people, planet, and profit parts of the TBL (Svenson et al., 2019).

Moreover, the connection between organizations and the external environment is essential for sustainable development. Thus, organizations are dependent on the environment for input and directions on what is relevant and vital (Williams et al., 2017). System thinking is a way to understand the complexity of economic, social, and ecological systems (Williams et al., 2017). From the perspective of system thinking, sustainability development and change are viewed as the ability of different systems to persevere, adapt, or transform according to the conditions. Since the socio-ecological system is a complex adaptive system, and the sustainability issues are interlinked, it can be challenging to predict what will happen. As such, it demands continuously changing and improving internal organizational structures to adapt to the changing demands (Williams et al., 2017). Therefore, a strategic approach to sustainable development requires that the whole system is considered when creating solutions and opportunities (Missimer et al., 2017).

Furthermore, the drivers for organizations to integrate sustainability are both externally and internally. The external drivers can be customer demands, regulations, and increased awareness in the society towards sustainability (Sroufe, 2017). Further, the internal drivers can be proactive leadership, organization culture, and sustainability reporting (Sroufe, 2017). Lastly, sustainable trends, customer demand, and willingness for products and value propositions are constantly changing, and organizations must consider them in their sustainable development (Ordieres-Meré & et al., 2020).

## *2.2 Sustainable digitalization*

Technology is constantly changing, and today's environment is highly dependent on technological capabilities (Andersen & et al., 2021). Hence, one of the most significant revolutions in business is switching from traditional to digital business

models to achieve higher competitiveness (Milica et al., 2018). Since digital technology is so present in people's lives in today's society, it also affects various practices and behaviors. Digitalization and sustainability can contribute to higher competitiveness, hence, it is natural that digitalization enhances more effective sustainability (Andersen et al., 2021). Recently the notion of a “*green digital transformation*” has received more attention, and this transformation is based on the widespread use of digital technologies to be more sustainable (Andersen & et al., 2021).

Sustainable digitalization enforces how society and organizations can apply digitalization to ameliorate sustainable actions. Digital Economy and Society Index (DESI) is a measurement developed by the European Commission which summarises indicators related to digital performance and digital competitiveness (Ordieres-Meré & et al., 2020). According to DESI, digital information, communication, and systems have had a vast development over the last few years. Besides, digital transformation can help foster innovation, more efficient processes, and corporate strategies (Ordieres-Meré & et al., 2020). Another aspect of digitalization is that it may not solely enhance more sustainable innovation actions, it can also shed light and uncover the unsustainable practices within specific industries and organizations (Sroufs, 2017). The level of external and internal transparency is an essential factor when integrating the change and being trustworthy. Technology has made it difficult for companies to be secretive or hide parts of their practices (Sroufs, 2017). Emphasizing the usage of technology when integrating sustainability change in the organization.

### *2.3 Attitudes toward change*

The ability to manage and utilize change situations effectively has historically been a common characteristic of successful organizations, and employees' attitudes toward change are a key component (Choi, 2011). According to Herscovitch and Meyer (2002), management and change are synonymous, and it is impossible to change without successfully addressing the purpose of the change. In other words, "*successful change is rooted in commitment*" (Conner, 1992, p. 147). One of the reasons why employees' attitudes are critical for the success of the change is, among others, the belief that organizations are social systems is becoming more applicable within the field of organizational change (Choi, 2011).

In many change processes the changes are initiated by top management. According to Heyden and colleagues (2017), findings on how employees varying dispositions to support change indicates that change initiated by the top management does not make an above-average level of employee support. However, the findings also show that change initiated by the middle tends to cause an above-average level of employee support, especially if the top management handles the execution of the change (Heyden et al., 2017). Studies also indicate that top management participation in change communication enhances stronger procedural fairness amongst employees (Faupeil & Helpap, 2021). The level of perceived fairness elicits employees' affective commitment to change. Besides, studies also show that employees' perceptions about fairness are based on the management's initial communication of the change, which involves information about the processes that will be relevant (Faupeil & Helpap, 2021).

Moreover, the change affects the individuals in the organization (Van den Heuvel et al., 2017). Hence, the attitudes and behaviors of the individuals in an organization can either contribute to or hinder a successful change process. Fedor and Herold (2006) state that how the organization does what they do matters greatly and can even be as or more important than what is done. Thus, how the management involves and engages employees during change has and should receive a significant amount of attention in the change process (Fedor & Herold, 2006). From a social exchange theory perspective, organizational change can be an opportunity to strengthen the employment relationship (Homans 1985 retrieved from Van de Heuvel 2017). However, change typically involves a large degree of uncertainty, ambiguity, and anxiety for the members involved (Van de Heuvel, 2017). This can affect both leaders, employees, and customers. Thus, organizations must succeed in getting employees and customers included in the change process from the start.

#### *2.4 Narratives of change*

Narratives of change are often used when the aim is to identify and understand how organizations deal with change. The term can be defined as "*a collection of stories which together convey a common worldview or meaning - it is a shared interpretation of the world and how it works*" (Social Change Initiative, 2022). This approach aims to integrate elements of experience into stories to make them more meaningful and sensible and discover connections within stories between the past, present, and future events (Kvalnes, 2017). This can be achieved by performing

interviews where the intention is to encourage participants to explain the transformation their organization has undergone. By applying this approach, we will be able to compare and investigate the participants' stories and, in the end, have a deeper understanding of the change process.

Moreover, a particular story can be told in several ways and with different effects (Rhodes et al., 2009). In other words, if a story becomes dominant and widely shared in an organization, this can limit other possible meanings and, thus, possible actions. As a result, this could make it difficult for other stories to create a holistic picture of the change.

### *2.5 Communication of the Change Message*

Effective and appropriate communication is a vital ingredient in the success of change, however, the communication of the change message has often been neglected (Goodman & Truss, 2004). The leader's task of communicating the message to their subordinates often fails. Hence, the statement of the change message is not always appropriately conveyed, and a negative response from those involved is often the result (Armenakis & Harris, 2001). Communication of the change message can be defined as *"the change message both convey the nature of the change and shapes the sentiments that determine reactions to the change"* (Armenakis & Harris, 2001, p. 169). Additionally, it has been shown that ineffective internal communication leads to change initiatives failing. Thus, communication has been found to play an essential role in enabling change managers to challenge embedded cultural and structural norms (Goodman & Truss, 2004). In order to ensure that the change message is delivered effectively Armenakis and Harris (2001) identified five key components. These five components are discrepancy, efficacy, appropriateness, principal support, and personal valence; what is in it for me? In other words, a proposed change is likely to be resisted if it threatens an individual's self-interest.

Moreover, the change message serves as a coordinator, divided into three phases: how to incorporate readiness, motivation to adopt, and lastly implement the change (Armenakis & Harris 2001). The first phase of incorporating readiness is for the organization's members to get ready for the change and ideally become supporters of it. During phase two, motivation to adoption, employees adapt to the new ways of operating after the implementation. The third phase explains how to maintain adoption until the change process is fully internalized in the organization.

Lastly, there has been relatively little research on the precise mechanism leaders can use to communicate effectively during change initiatives. Nevertheless, the research available suggests that the communication needs to be context-specific to succeed (Goodman & Truss, 2004). As such, communication that works in one organization under a set of circumstances might not be successfully used in another organization.

### *2.6 Culture and Climate*

Many change initiatives have failed because they did not recognize the subtle but crucial distinction between organizational culture and organizational climate (Sopow, 2007). Consequently, it is imperative to distinguish between the concepts regardless of their close relationship (Reniers et al., 2011). Isaksen, Dorval, and Treffinger defined the term culture as *"an organization's culture is long-standing, deeply rooted, and usually slow (sometimes very difficult) to change"* (2011, p. 186). In other words, the culture represents an organization's beliefs, traditions, history, and values. The culture can be seen as the fundament of the organization and the organizations shared pattern. Consequently, an organization's climate can be described as the underlying assumptions. Thus, the organization experiences their life within the organization and how they perceive their work environment. In other words, the climate is an organization's visible culture to the outside world (Reniers et al., 2011). Organizational climate can therefore be defined *"as the attitudes, feelings, and behavior patterns that characterize life within the organization"* (Isaksen et al., 2011, p. 187). Therefore, an organization's climate can be more accessible to change than the culture because it is viewed as the outer layers of a company's culture (Reniers et al., 2011).

### *2.7 Organizational culture*

In order to meet the challenges of sustainable implementations, sustainability needs to be embedded in the organizational culture (Bonn & Fisher, 2011). Sustainability-oriented organizational culture can be defined as *"an organization where members have common beliefs and opinions about the importance of balancing economic efficiency, social equality and environmental responsibility that are guiding managers and employees in their behavior and their decision-making processes"* (Paraschiv & colleagues, 2012, p. 408). Baumgartner (2009) states that organizations should strive to develop a sustainability-oriented organizational

culture, which can enhance and direct individuals' behavior, as well as operationalize sustainability.

Scholars suggest that sustainability-oriented organizational culture is vital for the sustainable development of organizations (Linnenluecke & Griffiths., 2010). Sustainable development for organizations involves integrating people, the planet, and profit into the organization's strategy, culture, and decision-making. However, for an organization to fully implement and apply environmental and social practices, the organization is reliant on significant cultural change and transformation (Linnenluecke & Griffiths., 2010). Related to the interrelation between organizational culture and sustainable development for an organization, one of the integration methods suggests that the employees should be part of the same organizational culture and that the employees should share similar attitudes toward sustainability (Linnenluecke & Griffiths., 2010). Nevertheless, such a unified view of organizational culture has been challenged and criticized. Some argue that a single sustainability-oriented culture does not portray a realistic assessment of an organization's culture (Linnenluecke & Griffiths., 2010). Especially since there tend to be many different organizational values and sub-cultures within an organization.

Moreover, leaders are essential for enhancing and creating a sustainability-oriented organizational culture (Linnenluecke & Griffiths., 2010). To develop such a culture, leaders must achieve a more balanced set of social and environmental values that influence the organization. Previous findings also suggest that implementing such a culture change is highly dependent on the values in the organization and that these values can further affect how sustainability is implemented and the outcomes of the initiatives (Linnenluecke & Griffiths., 2010). These findings emphasize the importance of the top management roles in enhancing a culture that enforces more sustainability.



### **3.0 Methodology and Data Collection**

#### ***3.1 Research Question***

This thesis aims to investigate how two organizations have used digitalization and enhanced employees' attitudes to change in order to become more sustainable. More specifically, it elaborates on how and which factors contributed to the successful commitment to the change in Mesta and Norsk Gjenvinning. This involves how digitalization affects sustainable change processes and how one can enhance a culture of change. This thesis will link theories about sustainable digitalization, culture and climate, communication, attitudes towards change, and sustainability. Our goal was to encourage storytelling by the employees at Mesta and Norsk Gjenvinning and to compare and investigate the patterns within the organizations. We wanted their perception of the changes and reveal underlying views when receiving stories from the past, the present, and thoughts about the organization's future. We assume that employees in Mesta and Norsk Gjenvinning shared narratives of the change initiatives within the organization. We were curious to see if the stories told were consistent with each other. Thus, we could find a red line throughout the stories that we could use to clearly see patterns, similarities, or differences within Mesta and Norsk Gjenvinning. Accordingly, our study aims to investigate the following question:

*How have two Norwegian organizations managed to enhance attitudes for change among employees to develop and use digital sustainability solutions?*

#### ***3.2 Introduction to Methodology***

The next chapter elaborates on the methodological choices concerning approach, design, data collection, and measures in the study based on the theoretical background presented. The method is then evaluated concerning its ethical considerations, validity, and reliability.

##### ***3.2.1 Qualitative Research***

To answer our research question in-depth, a qualitative research design with interviews as a data collection is preferred. The term can be defined as “*qualitative researchers contend that it is virtually impossible to understand why someone did something or why something happened in an organization without talking to people*”

*about it*" (Myers, 2009, p. 5). In other words, qualitative method addresses "why" and "how" questions to develop an understanding of the topic from the perspective of the informants being studied (Myers, 2009). Therefore, a qualitative research method is appropriate for our study because we will most likely make conclusions based on what we get told during interviews. Moreover, during the interactive session, informants can put their own words on their experiences, explain and elaborate on the topic. Hence, it will provide rich and nuanced data (Jacobsen, 2015). Moreover, the qualitative method may eliminate several misunderstandings, thus, promoting an equal perception of the phenomenon. However, the informants broadly define what the reality is.

### *3.2.2 Narrative Research*

Narrative research aims to *"observe how interviewees impose order on the flow of experience to make meaning of events and acts in their life"* (Riessman, 2002, p. 218). As such, the interviews were directed at encouraging respondents to outline the sustainability change processes. Hence, generating a greater understanding of our topic. Moreover, we plan to use Ricour's "threefold present" which consists of the past, present, and future, encouraging participants to tell their stories by making relevant and sensible connections.

### *3.2.3 Research design*

For this thesis, we chose a phenomenological design to understand the situation as the informants perceived it (Johannes et al., 2016). According to Creswell (2015), one of the most critical steps in a phenomenological design is preparation, data collection, and analysis. During our period as students, our interest in our thesis topic has grown, and to prepare and gain a basic understanding, we read several research articles and less source-strong theories. Based on our preparations, we gained a broader understanding of the following concepts: sustainability and digitalization. Therefore, we started to obtain information and investigated which organizations we wanted to get in touch with.

### *3.2.4 Purpose of study*

Change in organizations is inevitable, and through the last decades, sustainability has grown to become a huge trend. Therefore, organizations must act sustainably to reach the goals set by the United Nations. They decided on seventeen ways of creating a roadmap to transform the world by 2030 (United Nations, 2017).

Organizations choose themselves which of the seventeen different goals they want to focus on. As aforementioned, Mesta and Norsk Gjenvinning have decided to focus on several of the goals, and we were curious about how they were working to achieve their objectives. In addition to an increased focus on sustainability, there have also been changes in how organizations operate due to digitalization. Therefore, we wanted to investigate how two organizations are using digitalization as a part of their current and future sustainability work.

Besides, we have our own opinions about why we find this project interesting. Mesta and Norsk Gjenvinning are one of Norway's largest players in their industry. As of this, they are responsible for acting in line with the regulations from society and customers. We both find the interlink between sustainability and digitalization engaging. Therefore, we wanted to explore how these two constructs are viewed in two organizations that have existed for a long time. Additionally, both organizations have an influence on the environment. Mesta generally has high CO2 emissions due to their core business. In comparison, Norsk Gjenvinning contributes to the circular economy. Thus, we found it especially interesting to investigate the patterns in these two organizations. We wanted to obtain a greater insight into how they use digitalization to be more sustainable and how they view this intersection.

Overall, we expected to find some interesting stories about their sustainability efforts. Moreover, since Mesta and Norsk Gjenvinning are both large organizations with many employees scattered around the country, we were curious about how they have managed to engage their employees to achieve their objectives. Therefore, we think that talking to the top management and listening to the narratives of how they picture their situation will be interesting to see possible patterns between Mesta and Norsk Gjenvinning.

### *3.2.5 Collection of data*

In order to gain a thorough understanding of the two organizations, both primary and secondary sources were collected (Stensalker & Dalkenberg, 2007). Interviews with the employees in Mesta and Norsk Gjenvinning are the primary source of our data collection since interviews are the most crucial technique to gather data in qualitative research. In contrast, all other sources are viewed as secondary data (Myers, 2009). We will use secondary data such as articles, studies, and Mesta and Norsk Glendinning's web pages, which can be useful if they affect the research

topic and are used as complements to the primary data. Collecting both is useful for comparing and identifying variations in the data sources.

### *3.2.6 Validity and reliability*

To reach our goal of conducting a successful study, we must consider the validity and reliability of our data. There are several ways of ensuring validity. One significant factor for validity will be the selection. We conducted interviews with nine persons, and these helped us to illuminate and answer our research question. Validity can be defined as “*the correctness or truthfulness of the interference that is made from results of the study*” (Johnson & Christensen, 2014, p. 279). We consider our selection valid, but we are aware of the weakness of having only nine informants. Additionally, their opinions or experiences are not necessarily representative of everyone in Mesta and Norsk Gjenvinning.

Moreover, ensuring research reliability can be done in several ways, and according to Johnson and Christensen, reliability concerns “*the consistency, stability or repeatability of the results of a study*” (2014, p. 279). A major component of increasing data reliability is transparency regarding the accuracy of the data, how we collected the data, and how we analyzed the data.

### *3.2.7 Research ethics*

According to Johannes, Tufte, and Christoffersen (2016), several ethical considerations may arise when conducting research. Therefore, to adhere to ethical guidelines and protect participant privacy, the Norwegian Center for Research Data (NSD) was contacted before collecting any data. Jacobsen (2015) emphasizes that the study should not negatively affect the participants. As of this, we will treat all data confidentially, thus, we have used passwords to protect the files with information on our computers. Before all interviews, we asked for permission to record the conversations, and after transcription, we deleted the recordings.

### *3.2.8 Interview guide*

We started each interview by presenting ourselves, the thesis project, its purpose, and the topics we would investigate.

*Table 1. Types of questions asked in interviews*

<b>Question themes</b>	<b>Descriptions</b>
Background of interviewees	What position do you have in the organization and for how long have you worked here?
Identification of a sustainable change process	Can you start by telling about a sustainability change process that the organization has gone through?
Communication in the organization	How did the organization inform and include the employees during the change process?
Attitudes	In what way did the employee's attitudes change during the process?
Sustainability in the future	How do you plan to work with sustainability in the future?
Digitalization	How has digitalization affected the organization?
Finalizing the interview	Do you have any questions or comments related to the interview or research project?

### *3.2.9 Interviews*

We used interviews as the primary data collection method in this study. Based on our research question, a semi-structured interview approach was desirable. This allows for improvisation because the interviewees have the opportunity to add

important insights as they arise during the interview (Myers, 2009). We conducted nine interviews in total, where all the informants answered the same questions. However, using a semi-structured method, the informants can make their actual experiences the main focus of the interviews (Dutton, 2003). This also allows more open conversations, and based on how we emphasize a narrative approach, we believe that it is crucial not to interrupt to get to the next question. Moreover, we also gained a more complex understanding of the whole change process through the use of narratives. Hence, the informant's perception of the change.

***List of people interviewed in Mesta:***

- Chief Executive Officer (CEO) at Mesta. Had the position since September 2019.
- Head of Organization at Mesta. Started at Mesta in 2013, quit in 2016, and came back in 2019. Had different positions but have been Head of Organization since 2019.
- Head of Sustainability and Environment at Mesta. Had the position since 2020.
- Acting Head of Sustainability and Environment at Mesta. Had the substitute role from February 2021 to January 2022. Will continue in the same role together with the person I was a substitute for until the summer of this year (2022).
- Executive Vice President at Mesta. Had the position as Executive Vice President for department Operations and Maintenance for almost three years.
- Head of Strategy at Mesta. Had the position since 1. March, but have been working at Mesta since 2019.

*List of people interviewed in Norsk Gjenvinning:*

- Senior Vice President (SVP) of Sustainability and Compliance at Norsk Gjenvinning. Had the position since August 2021 but have been working in the organization for twenty years and had many different positions.
- Director of Strategy and M&A at Norsk Gjenvinning. Has held the position for over ten years.
- Communication Manager at Norsk Gjenvinning. Has held the position for three years but has been working in the organization for over five years.

As the list presents, our interviewees have different positions in Mesta and Norsk Gjenvinning. However, they are all working in the top management. Among our informants, some have been at the organizations for a very long time, while others have been there for a shorter amount of time. As of this, they naturally had different points of view on how the organizations had handled sustainability processes using digitalization. Nevertheless, our informants gave us a great wealth of information for our thesis and to answer our research question:

*How have two Norwegian organizations managed to enhance attitudes for change among employees to develop and use digital sustainability solutions?*

The following section presents the main findings from our study.

## 4.0 Main findings

To comprehend how Mesta and Norsk Gjenvinning have worked to change attitudes, identify improvement areas and develop their sustainability processes, this thesis will now present the main finding uncovered during the interviews.

### *4.1 Mesta:*

- Internal competitions enhanced commitment and engagement.
- Encouraged employees to share and contribute with suggestions.
- Used technology to get an overview of the utilization to identify which parts of their process they could streamline.
- From total focus on cost in the contracts to new requirements related to sustainability and the environment.
- From decentralization of the machine parks to more centralization.

### *4.2 Norsk Gjenvinning*

- From leaning on the fact that their core business was sustainable and created circular economy to focusing on how they can be more sustainable.
- Cooperation with technology partners.
- Used informal employees to create commitment and engagement.
- Positive attitude among employees when implementing electric machines.

### *4.3 Similarities:*

- They are focused on unity, transparency and openness from the top management.
- The culture is essential but has also been challenging to change.
- The different parts of the TBL relied on each other, and the interlink between the economic and the environmental parts was especially highlighted.
- Increased demands and requirements were a driver for implementing more sustainable practices.
- Digitalization has made their practices more sustainable.
- Employee's attitudes were the foundation for successful change.



- Experienced lowest commitment to the change process when the top management was distant to the employees.
- Striving to apply technology to a greater degree (e.g., AI) in future sustainability work.

As our findings indicate, Mesta and Norsk Gjenvinning have used digitalization to gain an overview over their actions and become more sustainable. In addition, both organizations focused on the inter-relationship between people, planet and profit to obtain their sustainable objectives. Based on how sustainability is such a broad construct, we assumed that there would be more divergence in how the two organizations had identified and spread the message throughout the organization. However, both emphasized the importance of unity and clear communication from the top management. Besides, openness and transparency were one of the key factors for enforcing a collective understanding of why the changes was necessary within the organizations. Lastly, an interesting similarity is that the top management has involved and encourage employees. At Mesta their employees has been encouraged to participate with solutions. While Norsk Gjenvinning has used informal employees to further spread the change message and motivate the resistant employees.

## **5.0 Mesta´s change journey**

In 2019 the new CEO started, and by the end of the year, Mesta implemented a focus on conversion and modernization. Further, in 2020 Mesta carried out a comprehensive strategy work focused on profitable growth, digitalization, and sustainability. For instance, they introduced five new statements meant to be a strategic guide for the whole organization. These were *“put security first”*, *“develop profitable growth”*, *“be great at implementation”*, *“sustainability in everything we do”* and *“the digital master of the industry”*.

In addition, the construction industry has undergone more requirements and laws related to environmental issues during the last years. This has changed the standard in the contracts, thus, it has created new demands for Mesta when they are in tenders for various projects. The construction industry generally has a lot of CO2 emissions. Nevertheless, the ongoing green shift has directed a more prominent

focus toward sustainability. Due to the combination of the requirements and the new CEO, Mesta started to focus on how they could meet future challenges.

*“Firstly, much of the work with the change process is because we see that it started to come particular requirements. When I began in February last year, I was thrown into a tender for a large operating contract, where Statens Vegvesen, for the first time, came up with criteria related to the environment and execution”*

- *Acting Head of Sustainability and Environment*

The contracts that had previously mainly focused on price also focused on the environment and the climate footprint. The Substitute Head of Sustainability and Environment informs that for the first time, the contract was not given to the organization that could provide the lowest price. Instead, climate and quality were emphasized by 30%, and cost counted for 70%. As such, Mesta was required to identify how they could improve their delivery related to climate and the environment. Even though they did not win this tender, they have seen that these criteria have been in several tenders afterward. Hence, they grasped that if they were to win tenders in the time ahead, they relied on delivering more sustainable solutions, not solely financial gain.

*“It has been a considerable transformation when it comes to change in Mesta. I started a few months after the new CEO in 2019. The new CEO worked a lot with changes, and we have had a significant focus on “sustainability in everything we do”.*

- *Head of Strategy*

With the new CEO, there was an increased focus on modernization and sustainability. Where especially two of the five strategic objectives; *“the digital master of the industry”* and have *“sustainability in everything we do”*, seemed to be vital for the organization in the time ahead.

*“One way is to enable the whole company to innovate, which is a pretty tricky thing to do because you will experience that someone gets a little uneasy, that someone gets a little nervous, and that someone thinks it is a little scary. ”*

*- CEO*

Mesta considered different ways they could potentially innovate, however, they identified that the whole organization needed to be able to innovate to reach the new objectives. It was pretty straightforward for the top management that Mesta needed to be modernized. Therefore, they needed to choose a method that enabled the whole organization to innovate. This allowed Mesta to include everybody and engage employees to see and create opportunities. The top management was aware that this approach often includes uneasiness and ambiguity amongst employees. As a result, they knew they had to work with involvement and engagement through the processes.

Mesta had identified the strategic objectives and recognized that they relied on involving the whole organization. As a starting point, they started to map out the processes and get an overview of what they could modernize.

*“We have had little control over the machine park; for the most part, it is decentralization, so all the projects rent or own their machines internally. There was no central overview where you could see the degree of utilization of the devices, where you could get environmental accounts, or where you could see how to use the machines. ”*

*- Head of Strategy*

*“In Mesta, we first had to map out our processes. When I came here, it was not an overview of the different methods and machines. We did not have a value bank with an overlook over the processes. We first had to get an overview; how are we working? What is the best practice? Then we could see which parts or whole processes we could automate or digitize. ”*

*- Executive Vice President*

One of the things that were identified was how decentralizing the machines park created several issues. Mesta did not have a comprehensive overview of the utilization of the machines, usage of the machines, what it meant for the environment, and the costs. The new demands related to contracts and environmental reports demanded that Mesta retrieve more data about their CO2

emissions than before. They depended on more data and a higher level of centralization to identify what Mesta could automate or digitize to become more sustainable. Therefore, they realized that they needed to implement systems that provided them with overviews and data about their practice's usage and the environmental costs.

*“One is the collaboration and pilot project we have with Klimator regarding salting. It is relevant because salt is an environmental issue and leaves huge CO2 footprint.”*

- CEO

Salting has several environmental and climate issues. Besides, salting involves a lot of costs for Mesta; reducing the salting itself and the means of transport would benefit their profit. They have received indications that they can reduce their salt consumption by 25% and the machine's usage equivalent. However, since it is a pilot project, Mesta has not received the full results of this cooperation. Klimator is based on AI, thus, it involves constant improvements. Nevertheless, it is one of the ways they have identified that they can receive an overview of the usage and, therefore, reduce their CO2 emissions. In addition to cooperating with Klimator, Mesta has started implementing more electric machines to reduce their CO2 emissions.

*“When we said that we were going to implement more electric vans, people were skeptical and resistant. However, the world we are in now requires us to lower our fossil fuel.”*

- CEO

Mesta encountered resistness from employees when they announced that they were going to buy more electrical machines. The top management handled this resistness by talking with employees and informed them of the importance of lowering the fossil fuels. As a part of obtaining an overview and lowering their CO2 emissions, Mesta also implemented a system called Links.

*“Idling is a journey of change we have had in relation to reporting and retrieving data about the idling itself. Seeing as it is such a crucial element in the industry we are in. Therefore, we invested in a system called Links which is a fleet management system that provides us with an overview of the driving habits and styles in order to get an overlook over how we can reduce the idling. ”*

*- Head of Sustainability and Environment*

*“We have implemented Links because we know that idling is the worst related to CO2 and the system gives us the opportunity to measure and follow up. We get the opportunity to provide data for projects. ”*

*- CEO*

Mesta has set a KPI for their degree of idling; their objective is to decrease their idling by 25% within 2025. Links have been applied to gain reports on the different equipment, how they could use it more effectively, and the costs. Idling has been a problem for Mesta, and Links provide them with analyses of each driver's idling and driving style. This again made it easier to identify where it was room for improvement. Thus, each driver was allowed to see how they could change their driving style to reduce their emissions. Based on the data retrieved from Links, Mesta could make reports where project managers could get an overview of their projects and the idling percentage in the project. Hence, they could compare and map it related to Mesta's KPIs.

*“First, the idling was 35% on average, and then we used last year to implement Links and set a baseline. The baseline on average last year ended at 29%, so it went down from 35% to 29% without really doing anything other than offering the tools, talking about it, and following it up. ”*

*- Acting Head of Sustainability and Environment*

Idling is an essential KPI for Mesta, and after implementing Links, they have seen a positive trend where it has been a reduction so far. Nevertheless, our informants emphasized that the effect is the end goal. Thus, it is not enough with an exemplary implementation since the implementation itself has no impact. The CEO explains

how the Links system, in addition to providing them with data and overview, also gave employees encouragement and positive reactions towards the change. The drivers themselves could see their score, thus, adjust to increasing their score so that Mesta could decrease their idling and reach their sustainable goals.

*“This measure is about direct change, and there have also been some who have made it a competition against themselves or against others on how we can reduce idling and get better”*

*- Head of Sustainability and Environment*

*“Some of the drivers have had an internal competition to score 100 out of 100 on their driving style. So there they are, taking screenshots when they manage 100 and sending it to their colleagues. It has become a fun thing. ”*

*- Acting Head of Sustainability and Environment*

As stated, Links has created internal competition. We see this a clear example of how a digital system can be applied to develop motivation and a fun approach to change processes. Further, to enable the whole company to be able to work towards innovation it was vital to create a collective understanding of the benefits with sustainable actions.

*“One has to explain why, how they can contribute, how can it help organizations..what’s in it for me? ”*

*- Executive Vice President*

The change required a set “why”, and employees need to perceive that the “why” was a good reason. Mesta has effectively communicated the “why” across different units and geographic places. Regarding the implementation of Links, they talked about the importance of the project and why it would benefit Mesta.

*“We have done a lot of things regarding skills development. In regards to idling, we have had a lot of training, we have been out in different departments and talked to employees. We have had several articles on workplace, and we have had an HR forum where we provided information. ”*

*- Head of Organization*

The involvement of employees was essential to creating a climate for change. Mesta had already set a KPI and established what sustainability meant for the organization, now they needed to ensure that it was sustainable in every joint of the organization. Besides providing information and creating awareness, it has been necessary to establish a culture for change.

*“I believe the culture is extremely important in the sense that Mesta should be forward-looking, and everyone should work with sustainability. We do not have any choices, it is not the case of “no thank you this does not suit us, I think we should just drop it”. It must be a part of us. ”*

*- Executive Vice President*

*“Culture is not something that is built over the night; it is built over a long period and consists of the change of values, norms, and attitudes. ”*

*- Head of Strategy*

All of our informants have acknowledged that culture is hard to change, but has been a necessary in order to reach Mesta’s new strategic objectives. They focused on making the employees aware of why the change was necessary and providing information about sustainability and digitalization.

*“In my role is it essential to keep talking about sustainability and idling. This is not a one point agenda for only one time. It HAS to be a permanent part of the agenda. ”*

*- Executive Vice President*

To make it a permanent part of the agenda Mesta has provided training, information and clear communication regarding idling. Related to this, Mesta has recognized the importance of input from the employees that works out in the field. This has contributed to make it a part of the agenda. Mesta has acknowledged that there is not solely individual’s in the top management that sees the opportunities. Therefore, they encourage employees to participate.

*“Then to motivate them to come up with solutions because they are the one that is out in the field and sees what happens. ”*

*- CEO*

Mesta has seen the value of suggestions from employees. Especially since digitalization is transforming so fast the employees might be able to identify which parts that needs development to increase their everyday work life. In addition, the employees might have suggestions on how the technology can be improved and help them in other practices that are not yet developed.

*“It goes extremely fast in a digital transformation, things happen quickly.  
Nevertheless, openness, patience and time is the key. ”*

- *Head of Strategy*

The ongoing transformation with sustainability and digitalization is changing rapidly, which again has made it essential for Mesta to be able to update their information and data constantly. Digitalization and the use of digital communication platforms made this possible. They have had digital workshops, used internal channel workplace actively, and held digital meetings over teams so more people can participate.

*“I think that the usage of data platforms has been absolutely crucial for us to be able to see the need, compile data, automatize processes, and inform. So digitalization is really the whole journey. ”*

- *Head of Strategy*

*“Digitization is not just data or technology, it is also how you work in the organization, how you acquire new knowledge and you must have people who have the right skills, training internally and then of course acquire new skills. ”*

- *CEO*

Mesta has used digitalization to enable more automated processes, and it has also been essential in gathering data about relevant sustainability initiatives, communication, and creating a culture. Thus, internally training and acquiring new competence have been vital for the implementation.



*“We have started a strategy and culture project in order to link Mesta’s values more closely to our strategy. Further, there will be more concrete measures on the management side since we want to clarify the goals we have, especially those aimed at sustainability. Provide project managers, management, and project leaders with clearly communication and the concrete measures, what we should talk about and how we can attain the culture we want.”*

*- Head of Sustainability and Environment*

The future work involves clarifying goals and further establishing the culture they have already started to work on through involvement and competence development.

Lastly, Mesta aims to use technology to a larger degree to be more sustainable, for instance by using more technological cooperation. In addition, when we asked how our informants thought Mesta planned to work with sustainability in the time ahead, there was a trend that most answered that there should be sustainability in everything they do and that they should use technology to enhance more sustainable processes. This shows that the focus on *“sustainability in everything we do”* and *“the industry digital master”* have already become essential statements that guide the direction of the employees at Mesta.

*“Change very often creates fear, one somehow thinks that it is safe not to change.*

*The only safe thing to do now is to change. If you work somewhere that says they'll keep doing what they are doing now for the next few years, I would have been terrified. The world is undergoing an enormous transformation and it is only changing faster and faster.”*

*- CEO*

*“The intention is not that you should have a sustainability team of 20 people, but we must get the whole organization to work for the same goal.”*

*- Head of Sustainability and Environment*

*“You have to get everyone involved. How are we going to transform and create change? If you do not ask and just do it top down I think it is very difficult to get the opponents and get the understanding of the why. Then you lose the essence.”*

*- Head of organization*

## 6.0 Norsk Gjenvinning's change journey

After Norsk Gjenvinning was sold to Altor III in 2011, several changes were involved. Norsk Gjenvinning's new owners initiated improvements to the organization in strategic, economic, and ethical terms to make it more attractive for future owners (Serafeim & Gombos, 2015). Altor III and the new management who came in as a result of the acquisition started to see the opportunities and challenges in the organization. This was the beginning of Norsk Gjenvinning's first change process within sustainability.

*“Our journey of change in sustainability started in 2011. We got new owners who came in and started what new companies often do, a 100-days program to get to know the business and which areas needed development and improvement. In continuation of this, a compliance program was started which actually were the first change process within sustainability in Norsk Gjenvinning.”*

*- SVP of Sustainability and Compliance*

During this period, Norsk Gjenvinning replaced several persons in the management. Even though some of them chose to quit, several were fired because they opposed the new changes. Hence, they had to be replaced to reach their new objectives. Norsk Gjenvinning recognized that if they let managers resist the change, they would never reach the power of change desired.

*“In connection with new management and new owners, major changes was made internally, and in management structures. We quickly discovered that there were many things that did not follow the demands placed on us as a business, or as an industry.”*

*- SVP of Sustainability and Compliance*

After the changes in organization and management structures, several initiatives were implemented. An important task for the new top management was, therefore, to create an organization where decisions were connected to the values and the framework.

*“In the first years, forty measures within compliance were implemented. If you take away holidays there was almost one measure a week. It was an intense journey and there were some symbolic themes, and others very concrete and practical.”*

- *SVP of Sustainability and Compliance*

In addition to the forty measures within compliance, Norsk Gjenvinning also understood that they had to develop a collective understanding of what sustainability meant for the organization.

*“One of the first things we did was to define what sustainability means for an organization as Norsk Gjenvinning because Norsk Gjenvinning is now almost 100 years old and was started as something else than it has become.”*

- *Director of Strategy and M&A*

*“We early established that sustainability is more than just the environmental issues, it is also compliance, social responsibility, circular economy and our own footprint. Besides, we think a lot about compliance in relation to having an ethical operation that complies with the requirements and laws we are subject to.”*

- *SVP of Sustainability and Compliance*

Norsk Gjenvinning decided on four pillars for sustainability. Firstly, the circular economy was highlighted. This includes constantly working for better recycling and more material recycling instead of landfill or incineration. Secondly, since Norsk Gjenvinning's is a large factory with many plants and logistics their own footprint was identified as a vital part of sustainability in the organization. Thirdly, they wanted to secure compliance through the entire value chain. Lastly, the social responsibility in terms of societal benefits, community building, and securing jobs was highlighted. These four pillars have been Norsk Gjenvinning's starting point and have been developed in line with the changes in society and how new technology allows for a different way of working.

As a result of how new technology changes working methods, Norsk Gjenvinning has developed the world's most advanced sorting plant for cardboard and paper at Alnabru, in Oslo which is based on optical detection and robotics.

Digitalization has become a more focused area in Norsk Gjenvinning, and they have recognized the potential in cooperation with technology suppliers. For instance, they have started a cooperation with the technology partners Reen which focuses on sensory along the whole value chain. These sensors measure what is thrown of waste, including their weight and the degree of filling. As a result, Reens helps drivers to plan and optimize their route.

*“We do not have to drive twice to Karl Johan in one hour because the drivers get information of the degree of filling and can stop by both places on the road.”*

- *Communication Manager*

One of Norsk Gjenvinning`s objectives is to further develop these systems and see the need for innovative processes. All of our informants emphasized that Norsk Gjenvinning has ambitions to have more cooperation with technology partners to enable the possibilities in the interlink between digitalization and sustainability.

*“Our approach is that we can start to develop some of these processes ourselves, but preferably in partnership with technology suppliers”*

- *Director of Strategy and M&A*

Moreover, technology has helped Norsk Gjenvinning in optimizing their processes and being more sustainable in order to recycle plasterboards that in the past were going to landfill. Because of technology, they are now able to recycle the plasterboards into powder which again is used to make new plasterboards. This was told as an example of how Norsk Gjenvinning has a circular economy which is one of the cornerstones of what sustainability means for the organization.

*“A cool example and a positive change in how we recycle plasterboards. We recycle 60 thousand tons a year that would otherwise go to landfill...then we have in a way made a move that makes us even more sustainable. We are lucky that this is what our strategy is about, it is not the case that we have a strategy and a business, and then we put something with sustainability at the top or on the side.*

*It is fully integrated.”*

- *Director of Strategy and M&A*

Based on how concrete and measurable these positive changes are, the Director of Strategy and M&A highlights how sustainability is integrated in the organization's strategy. We see the plasterboard and Reen projects as clear examples of how it has enabled Norsk Gjenvinning to become even more sustainable. Further, Norsk Gjenvinning are constantly working to improve and develop the way they recycle materials. They have a desire to be able to “close the loop” in more of their recycling processes, hence developing and improving their circular economy. As such, they will meet the constantly increasing demands from customers and stakeholders.

*“For us, sustainability is a competitive advantage”*

*-Communication Manager*

As stated, Norsk Gjenvinning consider sustainability as a competitive advantage. In order to stay competitive and adapt to external factors they have implemented more fossil-free machines. There are higher demands from construction sites in regard to fossil-free machines. Therefore, Norsk Gjenvinning recently got their first electric lift car in order to meet the customer's requirements. They have implemented several other electric machines as well but are taking it step by step based on how the technology is not optimal in relation to how much electric energy that is required. Although Norsk Gjenvinning is in favor of implementing more electric machines, they are aware that such machines are expensive to invest in. Thus, they need to consider more than just one factor.

*“There are two sides to an issue, one is cost efficiency and the other is the environment. It is about minimizing our footprint, but at the same time also making it cost-effective. It is very important from a sustainability perspective that we must change and streamline our operations, but no one would do this if we could not make any money from it.”*

*- Communication Manager*

Norsk Gjenvinning highlights the interlink between plant and profit, they have to have a valuable return on investments and sustainable actions. Besides, sustainable activities are linked to people within the organizations because they are affected by it in their everyday work life. We see this in how our informants are experiencing positive feedback from employees after shifting to more electric cars. The

employees report having an increased improvement in terms of comfort, reduced noise, and receiving positive feedback from customers.

*“What is very cool for us and for our communication department is that there are so many types of stories we can tell. We work a lot with such things in relation to sustainability, now we know what we are doing after all these years, we know where we can influence, we know what the customers want...now we must be able to report it...tell the stories...create internal motivation, external interest. That kind of things.”*

- *Director of Strategy and M&A*

After Norsk Gjenvinning had identified the customer's demands and which areas they could improve to become more sustainable. It was essential for them to comprehend how they could report on the sustainable activities correctly, enhance employees' commitment and create external interest in their activities. The aim was to develop internal motivation and external interest by sharing what they achieve through being more sustainable. To share these stories with employees in Norsk Gjenvinning, their internal magazine MeniNG goes out to all twice a year. The magazine consists of stories and information from the corporate management decisions, but it is written in a way that makes it uncomplicated to understand. In recent years the magazine has been changed to reach out to the target group, which is the operational employees.

*“The target group are the operational ones so when people come to me in the office and say: “we already know this”. I answer that I do not care because it is not you who should read it..It is nice that you do, but it is Ola who drives a car who will read it”*

- *Communication Manager*

Norsk Gjenvinning has recognized the importance of providing information to the operational employees and those most affected by the change in their everyday life to get secure awareness and knowledge among employees. Therefore, they had a focus on the consistency of their communication. A vital part of ensuring consistent communications is unity and a clear message from the top and middle management.

*“If what is said by the management at the top and what your local leader says at the Monday meeting has a big gap, it is not good. Therefore, leadership communication is something we have worked on quite a lot. We see the value of a strong and good collaboration so that what is communicated is consistent.”*

- *SVP of Sustainability and Compliance*

*“You are quickly revealed if communication is anything other than what happens in practice. If words and actions become two different things, then an organization is quickly revealed”*

- *SVP of Sustainability and Compliance*

As stated, Norsk Gjenvinning sees the value of strong collaboration to ensure that communication is consistent at all stages. In addition, the words and actions must be consistent to be perceived as reliable among employees. To ensure reliability, the top management has become more transparent in sharing information. As a result of more transparency, there has been an increased willingness to change processes.

*“Culture building is a success factor here...you must have the willingness to change as a part of the culture, and have a collective understanding of what worked yesterday, does not work tomorrow...”*

- *Director of Strategy and M&A*

Our informants further emphasized that having a culture for change is essential, and the involvement of employees is necessary to obtain this. In order to increase the involvement among employees, Norsk Gjenvinning discovered that if they managed to engage the informal employee that the rest of the group listened to, the message would spread more quickly. Because the informal employee had an undeniable influence on the other employees and could therefore influence in a way that the top management was not able to.

*“The informal person that colleagues listen to sets the tone for many others.”*

- *SVP of Sustainability and Compliance*

In order to reach their objectives Norsk Gjenvinning has directed a large amount of attention on the cultural aspect. They worked on the development of their values, involvement, and leadership development. Besides, there has been a focus towards the “why” and create a collective understanding of why Norsk Gjenvinning need to implement the changes.

*“I think it is important that we are very acknowledging that we are a group at Lysaker that are incredibly competitive people who really breathe and live for this. However, we have a gap in the organization since we have drivers where their job is not to build the cathedral, but it is to carry those stones. We must understand and respect that, however, we must also try to make them understand that they are a part of a bigger picture. So we have worked with the culture.”*

- *Communication Manager*

As stated, the top management is focusing on getting the employees to understand that they are a part of the bigger picture. Norsk Gjenvinning is experiencing a positive change among employees. In connection with the introduction with Reen, the employees were told to increase from two containers a day to three. This decision was based on how the new technology did some of the job checking what was inside the containers, thus, relieving some of the employee's work so they could handle more containers. The employees were resistant and did not believe it was possible. They struggled to see why they had to change something that always had worked. However, after a while, they managed four containers a day.

*“They had always taken two containers during the day, but what if you were going to take three? “No, that is completely impossible” ...but now they manage four containers during the day. I am very humble about the fact that changes are difficult.. and that it can be especially hard if it has been done through generations. “*

- *Director of Strategy and M&A*

As it appears, our informants are aware that change is complex and requires time. However, we believe it is safe to say that Norsk Gjenvinning has had a positive development in their culture. Nevertheless, there is still some cultural work to be done in the time ahead to reach their objectives.



Lastly, Norsk Gjenvinning has increased their focus on being more sustainable using digitalization in recent years. This has affected the organization in a positive matter. Nevertheless, our informants acknowledge that they have to continue to evolve and take their external environment into account to reach their strategic objectives. One can never know what the future will bring, but it is safe to say that our informants at Norsk Gjenvinning are optimistic and will continue to work with the interlink between sustainability and digitalization in the future.

*“All companies are in processes linked to change. We as individuals and companies can feel on a kind of burning platform, that we must take action within the climate and environmental challenges. That one creates the understanding that change is actually necessary. The greater the understanding that change is needed, the easier it is to make more radical changes.”*

- SVP of Sustainability and Compliance

*“What is very cool about Norsk Gjenvinning is that everyone is so incredibly agile and curious. Change is a natural part of our everyday lives, so by changing we take learning to the next step all the way.”*

- Communication Manager

*“I think we only have seen the beginning of the digitalization in our industry”*

- Director of Strategy and M&A

## **7.0 Discussion**

### ***7.1 Introduction to discussion***

This section will link our findings to the theoretical framework applied in this thesis. Our narrative approach will affect our discussion in the way we will underline the various patterns and similarities in stories from Mesta and Norsk Gjenvinning. We will compare our findings with existing relevant literature before we end with a discussion of the limitations of our findings. We have used a phenomenological design that involves looking at the meaning of the content. This characterizes our discussion in that we have analyzed the data material interpretively. To this point we have separated the two organizations, however, from now on we will not provide

a clear distinction between them. This is to be able to compare and view the patterns and similarities more distinctly.

We found evidence of how Mesta and Norsk Gjenvinning used digitalization to become more sustainable. Still, we discovered that they both had worked with embedding an organizational change culture and that it was a demanding process. Nevertheless, both organizations emphasized the importance of transparency, openness, and top management roles to enhance attitudes and behavior that aligned with the desired culture for change. We will review how the top management affected the employees and worked to develop the desired attitudes. Besides, we will discuss how they have applied more sustainable practices, focusing on how they have applied digitalization. We believe that organizations that succeed in adjusting to the sustainable and digitalization trends and demands have a greater chance of staying relevant and increasing their profit. However, we acknowledge that there are some challenges with this adjustment. As such, we believe that the most prominent challenge organizations meet during such a transformation is with culture and organizational climate. We think it requires a lot of attention and work from the top management.

Lastly, we anticipated both organizations to have a slighter focus on digitalization since they are long-standing organizations with a traditional core businesses. Therefore, we expected them to be less innovative in digitalization and sustainability trends.

### ***7.2 General discussion of Mesta and Norsk Gjenvinning***

We received the same stories from our interviewees in Mesta and Norsk Gjenvinning even though we used a semi-structured interview method. Everyone had a collective understanding of the sustainability processes they had done or are still developing in their organizations. Thus, one can say that the narratives of change were consistent among our informants. However, it was some different emphases of the stories which according to Rhodes and colleagues (2009) is a natural occurrence since individuals perceive situations differently. We believe that this has something to do with the number of people we interviewed as well as their positions, all of our informants work in the top management and have a personal interest in the organization. Assumed from this, we feel secure to say that all of them had the same shared stories within their organization which based on Rhodes and colleagues (2009) theory regarding narratives of change, has something to do

with the effects of telling a story. Hence, if there is a dominant story circulating, other interesting stories and meanings may not be able to spread as easily. We wanted to make the stories from Mesta and Norsk Gjenvinning more meaningful, sensible, and to discover connections within stories between the past, present, and future events (Kvalnes, 2017). Thus, a narrative of change approach is used to evoke a shared interpretation of the situation (Social Change Initiative, 2022).

Our assumption that the need for digital sustainability change processes was due to external factors was partly correct. This further accentuates how organizations depend on the environment for input and directions on what is relevant and essential (Williams et al., 2017). A clear similarity between Mesta and Norsk Gjenvinning was that both experienced more requirements, laws, and demands from customers and stakeholders. As such, the external environment has been one of the main factors to why they had to become more sustainable.

Furthermore, the focus on the social, economic and the environmental parts for both organizations shows that the triple bottom line is present when working with sustainability. According to Brien and colleagues (2015), the interlink and interdependence between people, profit, and the planet are essential for organizations working with sustainability. Our findings indicate that Mesta and Norsk Gjenvinning have focused on and managed to interlink people, profit, and the planet. We see the paperboard project at Norsk Gjenvinning as a clear example of how they have focused on the triple bottom line. This shows how the circular economy is present at Norsk Gjenvinning and how their processes are good for the environment, economy, and the people. Further, at Mesta they focused on reducing the amount of salt used to maintaining the roads during the winter since it is terrible for the climate. This has resulted in fewer means of transport they use in the production which has lower their costs. As such, the initiative is good for the environment and their economy. In addition, Svenson and colleagues (2019) emphasize that sustainable development for organizations is reliant on a well assessment of the three pillars in the TBL. They argue that the whole is greater than the sum of its parts, which implies that the three pillars become fragmented apart from each other (Svenson et al., 2019). We found examples of the importance of the TBL in the way the two organizations talk about how the social part has an effect on the environmental actions and the economic part. As well as, how the environmental parts and the economic parts has effect on each other. Lastly,

throughout Mesta and Norsk Gjenvinning's strategy and values they focus on how their actions should integrate the people, planet and the profit.

Through stories we got told in our interviews, one can recognize an immense focus on sustainability and digitalization in both organizations. Both digitalization and sustainability can contribute to higher competitiveness, thus it is natural that digitalization enhances more effective sustainability (Andersen et al., 2021). Therefore, one of the largest revolutions in business is the switch from traditional to digital business models in order to achieve higher competitiveness (Milica et al., 2018). According to DESI there has been a huge development in digital information, system and communication over the last years, and this digital transformation can help to foster more innovation and more efficient processes in organizations (Ordieres-Meré et al, 2020). Our findings obviously revealed how Mesta and Norsk Gjenvinning has achieved a more sustainable as well as effective way of working because of digitalization. Both organizations have seen the value of cooperation's with technology suppliers. As such, sustainable digitalization can possibly enforce how organizations use digitalization to obtain sustainable actions. This can be exemplified through how Norsk Gjenvinning implemented Reen to measure what is thrown of waste, including the weight and degree of filling. As a result, it has been possible to plan and optimize which containers need consideration and decrease their driving because they can plan their route. Mesta has also experienced some of the same advantages after implementing Links. One of the advantages Links has given them is the possibility to analyze and view driver's style, thus, how their driving style affects idling and how they can reduce idling. One can therefore argue that digitalization not solely enhances more sustainable innovation actions, it also shed light on and uncover unsustainable practices (Sroufs, 2017).

Moreover, we found evidence of how Mesta and Norsk Gjenvinning take part in the green digital transformation, meaning that they use digital technologies to be more sustainable and reach their UN Sustainable Goals (Andersen et al., 2021). Norsk Gjenvinning has the most advanced sorting plant for cardboard and paper on optical detection and robotics. In comparison, Mesta uses the Links system to gain an overview of their machines park, which has enabled them to reduce their idling and make sustainable reports. Besides, an unexpected, interesting finding during our interview with Mesta was the importance of digital communication before and during the change process. As aforementioned, DESI states there have

been considerable development in digital communication over the last years (Ordieres-Meré et al., 2020). Mesta used digital information platforms, both external and internal, to keep their employees, customers, and stakeholders engaged and updated on the changes. Thus, the green digital transformation does not only create more efficient processes and strategies, it can also enforce more efficient and transparent communication.

Furthermore, both organizations drew attention to how complex and prolonged the process of changing a culture is, which is in alignment with the theory from Isaksen and colleagues (2011). Besides, both organizations emphasized that they were reliant on a significant cultural change and if they did not manage this the sustainable development objectives would not be reached. This is also in line with the theory from Linnenluecke and Griffiths (2010). For instance, Mesta and Norsk Gjenvinning has worked with their culture and tried to get everyone onboard for their initiatives to be successful. However, they acknowledged that one cannot always get everyone onboard, and that they were not interested in keeping employees that were not willing to change. The similarities are in how Mesta and Norsk Gjenvinning explains the cultural part of the change process as an aspect that requires patience and consistency to obtain the set outcome. According to Sopow (2007), many change initiatives have failed because they did not recognize the subtle, but crucial distinction between organizational culture and organizational climate. According to Reiners and colleagues (2011) the climate is an organization's visible culture to the outside world. As of this, the climate can be described as the feelings, beliefs, and behavior patterns that describe the life within the organization (Isaksen et al., 2011). While culture is seen as the building bricks or the fundament of what it has become. In other words, culture represents an organization's traditions, beliefs, history, and values (Isaksen et al., 2011).

Our findings revealed how the culture and climate have affected the changes in both organizations. This can be illustrated with an episode from Norsk Gjenvinning; in connection with the introduction with Reen the employees were told to increase from two containers a day to three. This decision was based on how the new technology did some of the work of checking what was inside the containers, relieving some of the employee's work and, therefore, allowing them to handle more containers. Employees struggled to adjust to the new method of working, and they resisted the change. However, eventually, they managed to handle four containers daily. Based on how the employees now manage more

containers than the management expected indicates that the employee's behavior patterns, feelings, and beliefs changed, thus, the climate for change (Isaksen et al., 2011).

Besides, in order to meet the challenges of sustainability implementations, both organizations have made sustainability a part of the organizational culture. According to Bonn and Fisher (2011), sustainability needs to be embedded in the organizational culture in order to succeed. Mesta has made “*sustainability in everything we do*” one of their strategic objectives, while Norsk Gjenvinning has the slogan “*there is no rubbish*”. We see this as clear examples of how the organizations have interpreted sustainability as a part of their culture because it sets a clear framework for which values and beliefs the organization stands for (Isaksen et al., 2011). These values have been essential, and they can affect how the implementation and the outcome is (Linnenluecke & Griffiths., 2010). As such, both organizations have worked on embedding a sustainability-oriented organizational culture, which involves that members have shared beliefs about the importance of being economically efficient, social, and environmentally responsible and that these beliefs guide the actions in the organization (Paraschiv et al., 2012). Besides, Mesta and Norsk Gjenvinning tried to enforce a collective set of attitudes and values towards the sustainable changes, however, they experienced some resistness among employees. The assumption that all employees should share all the same sustainable attitudes does not portray a realistic view of organizations (Linnenluecke & Griffiths., 2010). Therefore, we assume that it is a certain diversity in the attitudes among employees in Mesta and Norsk Gjenvinning, but that it is vital that the core points of the attitudes are quite similar.

According to Linnenluecke & Griffiths (2010) the top management has an essential role when trying to enforce a more sustainability-oriented organizational culture. Mesta's and Norsk Gjenvinning's unity in the top management was essential when they tried to change the culture. In addition, the top management at Mesta and Norsk Gjenvinning focused on that sustainability involves several parts and that it did not only focus on the environmental aspects. This aligns with Linnenluecke & Griffiths (2010) findings that suggest that leaders must have a balanced set of the environmental and social aspect to make the sustainable implementation successful. In order to embed such a culture, Mesta and Norsk Gjenvinning have focused on transparency, openness, and consistency. Therefore, it seems like it has enhanced the employees desired behavior, as well as

operationalized sustainability in both organizations (Baumgartner, 2009). An interesting observation was that we did not ask anyone at Mesta directly about Links. However, everyone we interviewed mentioned it. This indicates that openness, transparency, and consistency might have contributed to a great awareness of the system across departments.

As our above discussion and theory emphasize, culture and climate are essential factors in change. However, employees' attitudes toward change are critical to managing and utilizing change situations effectively (Choi, 2011). One of the reasons why employees' attitudes are vital to the success of the change is, among others, the belief that organizations are social systems (Choi, 2011). Our findings revealed how employees' attitudes affect the changes in both organizations, and it can be illustrated with an episode from Mesta: when implementing Links, they experienced bugs in the system, which caused some minor mistakes in the system and results. The bugs and difficulties in the system led to challenges as employees' attitudes changed and they became more resistant. To change the attitudes, Mesta worked even more with information, openness, and providing more training in Links to further highlight the purpose of the change. This resulted in turning employees' attitudes around. We assume that this became possible because the employees received even more information, openness and that the top management strived to meet their concerns. This aligns with the theory of Herscovitch and Meyer (2002) on how the management should involve and engages employees during change. In other words, it is impossible to change without first addressing the purpose of the change successfully. Hence, *"successful change is rooted in commitment"* (Conner, 1992, s. 147).

In order to achieve a successful change, Armenakis and Harris (2001) suggest incorporating readiness, motivation to adopt, and lastly implement the change. Based on our main findings we believe that Mesta and Norsk Gjenvinning has achieved creating and incorporating readiness and to some extent supporters of it. Nevertheless, they are still working and discovering ways to motivate employees in order to adapt to the new ways of operating after the implementations. Therefore, maintaining adoption until the change process is fully internalized in the organization is something both organizations are striving for (Armenakis & Harris, 2001). Besides, we also believe that both organizations will continue to strive for adoption of the change. This is based on what our informants told us about how they will continue to develop and implement new technology to maintain

competitiveness and increase their sustainability in the future. Hence, Mesta and Norsk Gjenvinning focus on that sustainability is not an end target. Instead, it is a dynamic state that demands continuously changing and improving internal organizational structures to adapt to the changing demands (Williams et al., 2017).

Through the lenses of social exchange theory, organizational changes can also be a chance to strengthen the relationship with the employees (Homans 1985 retrieved from Van de Heivel 2017). Organizations can achieve this by focusing on engagement, trust, and psychological contract fulfillment. Besides, the perceived fairness tends to be based on the initial communication of the change (Faupel & Helpap, 2021). Our findings show that Mesta encouraged employees to come up with suggestions. Therefore, it seems like Mesta has been able to use the change process to strengthen both the commitment and the employee relationship. Norsk Gjenvinning also focused on involvement of employees in how they involved and engaged the informal employee that everyone listened to. In order to enhance attitude for change among the resistant employees by providing them with information of why the change was necessary. This aligns with the theory from Fedor and Herold (2006) on how management involves and engages employees during change should receive significant attention.

Further, one of the findings that were similar between the two organizations was that everyone we interviewed emphasized the importance of clear communication, openness, and transparency. According to Sroufs (2017), technology has made it difficult for organizations to hide parts of their sustainability actions or climate reports. Thus, internal and external transparency during sustainable change processes is essential to gaining trust among employees, customers, and stakeholders. Mesta and Norsk Gjenvinning divided a focus towards external and internal communication. One of the first aspects of Mesta's change journey was that they grasped that they did not have a complete overview of their environmental accounts. As a result, they implemented Links to obtain a comprehensive overview, which made it possible to see the usage of their machine park, which made Mesta able to communicate externally and internally about how they use their machines and how they try to reduce their emissions. Norsk Gjenvinning has also had an increased focus on communication, openness, and transparency, especially after the acquisition back in 2011. To involve and get important information out to all employees, the magazine MeniNG goes out to all employees. In recent years the magazine has been changed to reach out to the target



group, which is the operational ones. The magazine contains information about corporate management decisions, but it is written in such a way that makes it uncomplicated to understand. Nevertheless, we acknowledge that we only talked to the people that are a part of the top management. As a result, we cannot know how this has been received.

Another substantial similarity between Mesta and Norsk Gjenvinning is their focus on the top management. The top management initiated the changes, and both emphasized how it was vital with a clear message and unity from the top. According to Heyden and colleagues (2017), changes initiated by top management do not necessarily lead to an above-average level of employee support. Heydens and colleagues (2017) findings further show that change initiated by the middle management, where the top management handled the change, is inclined to cause an above-average level of employee support (Heyden et al., 2017). At Mesta the changes were first identified at the top and implemented top-down, Mesta worked strategically to encourage the middle management and employees to come up with suggestions. Therefore, one could argue that they acted in line with the theory from Heyden and colleagues (2017) by using the middle management and each employee to initiate new changes. Additionally, Mesta and Norsk Gjenvinning informed us that they experienced the lowest commitment during the change when the top management was "far" from the employees during the changes. This is quite interesting since studies indicate that the top management's participation in the change communication can lead to increased perceived fairness among employees (Faupel & Helpap, 2021). Further, perceived fairness can lead to a higher level of employee commitment (Faupel & Helpap, 2021).

As aforementioned a similarity between Mesta and Norsk Gjenvinning is their increased focus on communication. However, the communication of the change message is one of the most commonly neglected even though it is one of the most critical aspects of change (Goodman & Truss, 2004). If the statement of the change message is not conveyed correctly, the results are often negative from those involved. Thus, communication has been found to play an essential role in enabling change managers to challenge embedded cultural and structural norms (Goodman & Truss, 2004). Nevertheless, there is little research on how leaders can use communication effectively in change. However, the research available suggests that the communication needs to be context-specific to succeed and that what works in one organization might not be successful in another organization (Goodman &

Truss, 2004). As such, what has worked for Mesta and Norsk Gjenvinning regarding communication might not work under other circumstances. However, we do believe that openness, transparency and clear objectives might potentially be some common factors that generally will work in other organizations as well.

Moreover, Armenakis and Harris (2001) identified five key components to ensure that the change messages are delivered effectively. Where we believe the last component, which concerns the personal valence; “*what is in it for me?*” has been critical when Mesta and Norsk Gjenvinning have encountered challenges with the communication of the change message. A proposed change is likely to be resisted if it threatens an individual's self-interest (Armenakis & Harris, 2001). Both organizations experienced unwillingness and anxiety among employees during stages of the change process. However, since the idea that organizations are a social system, employees tend to experience that the change process can be frightening (Choi, 2011). According to Van de Heivel (2017), organizational change is likely to involve anxiety, ambiguity, and uncertainty. Nonetheless, employees' attitudes and behavior to the change affect the success of the process (Choi, 2011). Both Mesta and Norsk Gjenvinning worked to reduce the uncertainty among employees by clarifying why the change was beneficial for the employees and for the organizations. Thus, they aimed to further give the employee an answer to “*what's in it for me?*”, which both organizations believed that helped them to decrease uncertainty among employees.

Moreover, according to the CEO at Mesta they chose an approach that focused on making the whole organization able for innovation and be sustainable. According to Missimer and colleagues (2017), a strategic approach to sustainable development requires the whole system is considered when the organization creates solutions and opportunities. Through the lenses of system thinking one can understand the complexity of economic, social, and ecological systems and also how sustainable development are an ability to transform according to the different systems (Williams et al., 2017). One could argue based on our findings that Mesta and Norsk Gjenvinning transformed their organization to become more sustainable based on how the external, social and economic systems around them changed.

Lastly, we noticed when comparing existing literature with our findings that there is still a lack of a comprehensive framework regarding sustainable actions. There is not a definite design for operating an organization sustainably (Ordieres-Meré et al, 2020). This aligns with how the informants viewed the construct as

broad and, therefore, was reliant on defining what sustainability meant for their organization and which aspect they should focus on. Further, since technology is constantly evolving, it quickly changes how organizations use digitalization. Mesta and Norsk Gjenvinning emphasized how these quick changes demand that organizations adjust to new technology rapidly to keep their position and stay relevant.

## **6.0 Limitations**

We acknowledge that this thesis has several limitations. Firstly, we only had nine informants and they are all working in the top management. Therefore, this thesis might have benefited from interviewing people on the floor to identify how the message was received among them and how they experienced the changes. Secondly, we interviewed more people at Mesta than at Norsk Gjenvinning, which might have had an impact, thus, making it harder to highlight similarities and patterns between the two organization. However, the people we interviewed provided us with great depth for this thesis.

Moreover, we experienced that there was a conformity about what sustainability meant in Mesta and Norsk Gjenvinning. However, both sustainability and digitalization are broad constructs. Therefore, there are various theories and perspectives one could apply. Thus, we acknowledge that there are other theories that would have been interesting and relevant to address in order to answer our research question. In addition, digitalization is constantly changing social practices in organizations but there is still surprisingly little attention to the intersection between digitalization and sustainability (Andersen & et al., 2021). Besides, there is still not an ultimate design for how to operate an organization in a sustainable way which calls for further research within the field (Ordieres-Meré & et al, 2020).

Lastly, it would be interesting to interview people at Mesta and Norsk Gjenvinning in a few years to investigate how their ongoing cultural work has enhance attitudes for change among employees. As well as, how digitalization has continued to affect them to become more sustainable.

## 7.0 Conclusion

Our aim with this master thesis was to contribute to the literature on sustainability and digitalization and present the narratives of change told by the top management at Mesta and Norsk Gjenvinning. We believe that this thesis consists of aspects that are relevant for organizations that undergoes implementation of sustainable digitalization processes. However, our conclusion is based on the interviews conducted, the selected theory and the time this was carried out. As such, it is possible that we would have gotten a different conclusion with other circumstances.

We have discovered that digitalization can be a driver for implementing sustainable practices, but it is also vital for an organization to enable a system for managing and following up sustainable actions. Mesta and Norsk Gjenvinning have implemented digital systems to gain a better overview of their practices. Both organizations emphasize that they have optimized their processes and their profitability, and that digitalization has made it possible to work more efficiently. Another similarity is that Mesta and Norsk Gjenvinning have focused on technology cooperation in recent years to reach their objectives, and that they envision that they will direct more attention towards it in the time ahead.

Furthermore, we contextualize that sustainable development requires attention to the interlink between the people, planet, and profit parts of the TBL. Mesta and Norsk Gjenvinning highlighted the inter-relationship between the planet, profit, and people. For instance, they concretized that sustainability also involves the social aspect. Further, throughout the interviews, it became clear how the social part affected the environmental parts, and how the environmental and economic parts were interdependent on each other to be successfully implemented.

Moreover, an interesting pattern between the two organizations is how they have worked with their employees. A similarity is how they have invited employees to share and inform how they have managed to work with the new changes. Besides, both organizations have used these stories in their internal communication to create employee motivation. Thus, inform employees about what they are a part of achieving and make them understand that they are a part of a bigger picture. Mesta and Norsk Gjenvinning are large organizations with most employees working outside the office. Therefore, digitalization has been vital when spreading the change message so that it reached everyone. A pattern between the two organizations is that the top management has involved and encourage employees

during the change process. Besides, clear communication from the top management is something both organizations have as another similarity.

Overall, both Mesta and Norsk Gjenvinning highlighted that culture can be demanding to change. It is a time-consuming process that require follow-up and consistent encouragement of the employees in each step. In order to consolidate the process both organizations provided the employees with openness, clarity and transparency. However, both organizations still encountered unwillingness to change among employees. It has become clear that it is natural to face some reluctance and ambiguity during the change process. As such, it is essential to continuously work with the processes after the first implementation to obtain the desired effect and continue to engage and provide employees with information when there is reluctance. Their cultural work has been emphasized as crucial and has been accentuated as a field that requires attention in the time ahead.

Mesta and Norsk Gjenvinning has enhanced attitudes for change by providing a clear message from the top, openness and transparency. In addition, the importance of consistent words and actions throughout the process has been emphasized in order to sustain the desired attitudes among employees. By having a clear communication, openness and transparency in the organizations, it seems like Mesta and Norsk Gjenvinning have managed to enhance attitude for change among their employees.

We feel safe to conclude that both Mesta and Norsk Gjenvinning aim to continue their sustainable work using digitalization. Our main findings indicate that Mesta has a desire to focus more on AI, data platforms and cooperation's with technology organizations in the time ahead. Norsk Gjenvinning also intend to increase their cooperation's with technology partners even more, as well as, continue to develop and use optical detection and robotics and AI. As such, both organizations are working towards becoming more sustainable by using digitalization. We find it interesting that the fluctuating market needs constantly demands that organizations evolve according to their environment. Further, we believe that we will see even more digital sustainable solution in the years to come.

Lastly, we find it engaging how digitalization possibly can increase sustainable organizational performances. Nonetheless, we see that sustainable development within organizations also requires attention to the interlink between the parts of the TBL, and a more precise framework for sustainable development.

*“Change is the only constant in life”*

- *Heraclitus*

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