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Leadership Development Programs in Hydro's Aluminium Metal division

An exploratory case study on the strengths and weaknesses of Leadership Development Programs

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Master Thesis in Strategy and Management

NORWEGIAN SCHOOL OF ECONOMICS
Bergen & São Paulo, Spring of 2022

Executive Summary

The following thesis is a qualitative single case study based on 10 semi-structured interviews of leaders on three different hierarchical levels in a business section of Norsk Hydro ASA called Aluminium Metal. The purpose of this thesis is to explore how leaders in Norsk Hydro Aluminium Metal experience the strengths and weaknesses of leadership development programs. An extension of this becomes how leadership development programs can be used to strengthen leadership capacity in a matrix organisation through developing its leaders and leadership.

We have collated and studied a myriad of research and theories that currently exist in leadership development but, in general, there is a lack of consensus about how companies can develop their leaders and in turn, strengthen their overall leadership capacity. We have chosen to focus on leadership development programs to limit the scope and to provide more explicit recommendations for how to develop leaders, as this area lacks agreement in the literature. From our qualitative interviews, we identified what the leaders consider strengths and weaknesses of existing leadership development programs at Norsk Hydro Aluminium Metal. Multinational companies can look to our findings when developing leadership development programs to better equip their leaders to deal with an increasingly complex business environment to lead their employees towards company goals and align with company values. This can result in bolstering companies' overall leadership capacity.

Our research found that there are two categories of leadership development programs: developing the individual leader and developing intrapersonal relationships in the programs. Only with both categories can leadership capacity be strengthened. Content in the programs like mixed learning methods and getting feedback from peers and external actors were seen as particularly important strengths for developing as a leader. The role that leadership development programs play in facilitating networking was considered a key strength by the leaders to develop intrapersonal relationships. On the other hand, purely presenting information that can be found through other mediums, lack of support and unstructured follow-up and feedback mechanisms were seen as weaknesses. Nonetheless, the importance of contextual factors like the organisational structure of the company, bearing in mind cultural differences and being able to transfer learnings back to the organisation need to be considered and impact how leaders experience leadership development programs.

Acknowledgments

This thesis marks the end of our Master's program in Economics and Business Administration at the Norwegian School of Economics. The theme and research question were developed in collaboration with Norsk Hydro as part of our major in Strategy and Management. The thesis is written as a part of the RaCE program (Radical Technology-Driven Change in Established Firms), which is a joint program by the Norwegian School of Economics and Institute for Research in Economics and Business Administration.

Cooperation, frustration, confusion, and pride are all words that describe our process in finishing this thesis. We are proud to have conducted our research over the span of ten months but were never able to sit in the same room and write together due to our different exchange semesters. When one was in Norway, the other was in Sweden or Brazil on exchange. Time zones and internet connectivity have not always been on our side, so challenges have been prevalent – we have had plenty. However, we can confidently state that strong communication and mutual respect were crucial components in completing this study and presenting you with something we are extremely proud of.

We would like to express our utmost gratitude to our excellent supervisor Karen M. Olsen. This process would have been considerably more chaotic without you, and we appreciate your time, effort, and input. We would also like to thank our contacts and interviewees in Norsk Hydro for your outstanding cooperation over the last ten months. Our inquiries were always well received, and our questions were always answered. A special thanks to the interviewees for taking the time to be interviewed – without you, there would be no thesis to hand in.

To our families and friends, we are now once and for all done occupying living rooms, kitchens, and other areas in the house for our daily zoom-meetings. You may now safely enter any room. We appreciate your patience!

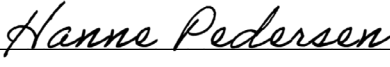Bergen & São Paulo, May 2022

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1.0 Introduction

Both theorists and practitioners in the human resource management and leadership fields, as well as in many other business and managerial areas, identify people as the most important component of a successful business. Specifically, leaders are needed to steer companies and their people towards profitability and success. However, the business environment in which leaders do this in is becoming increasingly uncertain. The acronym, VUCA, which stands for volatility, uncertainty, complexity, and ambiguity, has coined this environment (Schoemaker, Teece & Heaton, 2018). As a result, what is required of leaders is more comprehensive and challenging than ever before. Companies spend billions of dollars developing their leaders to meet these challenges. However, the results of the leadership development methods and activities used are difficult to comprehend and analyse. Theorists and practitioners alike are yet to find a consensus on how to develop leaders to achieve the best results. It begs the question whether these companies have so far thrown money at a problem with no proven results. It is, therefore, essential to shed light on this issue by exploring how one leadership development method, namely leadership development programs, can be used to develop leaders so that the company's leadership capacity is strengthened to meet the business challenges of tomorrow.

1.1 Purpose and Research Questions

The purpose of this research is to explore how Norsk Hydro can use leadership development programs to develop its leaders and consequently, the company's leadership capacity. To do so, we evaluate how leaders at three different hierarchical levels in Hydro Aluminium Metal have experienced the leadership development programs they have attended so far. As such, the research question we aim to answer is the following:

How do leaders in Norsk Hydro Aluminium Metal experience strengths and weaknesses of leadership development programs within the company?

As this is a relatively open research question, we aim to focus on the content of the programs and the role of the programs in the Aluminium Metal business area. As a result of the analysed strengths and weaknesses, we can draw practical implications about how future leadership development programs should be improved to develop leaders in the organisation and raise the company's overall leadership capacity.

1.2 Structure

This thesis is structured into seven chapters as is outlined in the table of contents above. The introduction accounts for chapter one. Chapter two provides the empirical context for our study. This includes a general background of the reasons why we felt it necessary to dive deeper into the topic of leadership development programs and a background of the business division at the focal company. This background outlines information about Norsk Hydro and the subdivision, Aluminium Metal, such as its organisational structure and history, and more exclusively to this study, the leadership culture and leadership development history to date.

Chapter three accumulates the extensive theory on leadership and leadership development specifically relevant to our study. Leadership development and subsequent programs is the starting point. Following this, theory that is particularly important for enhancing the strengths of leadership development programs are presented such as transfer of training and network-building. In addition, theory on the matrix organisation is described to provide meaningful context to this particular case study. The methodology is further delineated in chapter four to explain the research design process and what actions and deliberations were taken to draw the subsequent solutions, taking notice to reliability, validity, and ethical measures.

Subsequently, chapter five sets out the analysis section where we present the answers of the interviews. Chapter six follows with a discussion of these answers in light of the theory and the empirical context to encompass our findings. Chapter seven concludes our case study and suggests how it contributes to the existing literature of leadership development programs. This chapter also serves the purpose of providing practical managerial implications on the topic and recognising limitations to our study.

2.0 Empirical context

This chapter introduces the focal company that forms the basis for our case study. We present some general company information and then we dive deeper into the business division, Aluminium Metal, from which we sourced the leaders for our data collection. A vital component of this division is its organisational structure and its five Aluminium Metal Business System (AMBS) principles. To conclude this section, we explain the leadership culture in Hydro and the Aluminium Metal division specifically and the leadership development methods used to date. We do this through triangulation of data from secondary sources found online like

Hydro's company website as well as primary data from our sources at the organisation. The primary data stems from the interviews conducted and information provided by our Hydro correspondents, responsible for organisational development in the business area and the human resources department.

2.1 Company information

Norsk Hydro ASA is a multinational industrial company, established in 1905, whose core focus is on developing natural resources into products and solutions such as aluminium. It can be described as an aluminium and energy company, with 30,000 employees in over 140 locations and 40 countries (Hydro ASA, 2021a). Hydro is one of Norway's largest and well-known companies with a rich and long-standing history in the country (Hydro ASA, 2021a). The company is made up of four main business areas: Hydro Bauxite & Alumina, Hydro Aluminium Metal, Hydro Extrusions, and Hydro Energy (Hydro ASA, 2021a). This case study will focus on the second business area: Hydro Aluminium Metal. Additionally, Norsk Hydro's core values are care, courage, and collaboration, foundations on which its employees and their leaders build their operations on.

Hydro Aluminium Metal, from now on referred to as Hydro, has a global production network with primary metal production facilities in Europe, Canada, Australia, Brazil and Qatar, and recycling facilities in Europe and the US. In 2018, Hydro had metal product sales of 2.8 million tonnes and their recycled aluminium has the lowest carbon footprint for the industry. The business area has just short of 5,000 employees in 17 locations, with a revenue of 9,196 million Norwegian kroner (Hydro ASA, 2021b). The largest hub for this business area is in Norway, where the business area consists of five aluminium production plants in Sunndal, Høyanger, Karmøy, Årdal, and Husnes. Hydro's headquarters are based in Vækerø, west of Oslo in Norway. Another important location is Brazil. Brazil is Hydro's main source of bauxite (the main ingredient for aluminium), and it holds the world's largest alumina refinery outside China, where Hydro refines bauxite into alumina (Hydro ASA, 2021c).

2.1.1 Organisational structure

The Aluminium Metal business area can be described as a matrix organisation. The business area is structured according to a line organisation and with improvement groups. This means, for example, that the electrolysis department is divided into several areas, each with a line

manager responsible for 20 to 45 employees. Simultaneously, all employees in all areas participate in improvement groups that work across the line organisation. The employees report to the line organisation, but they also have tasks within the improvement groups. The following diagram is an example of the organisational structure of the business area as provided by our Hydro correspondent. Employees responsible for the areas are omitted for anonymity reasons.
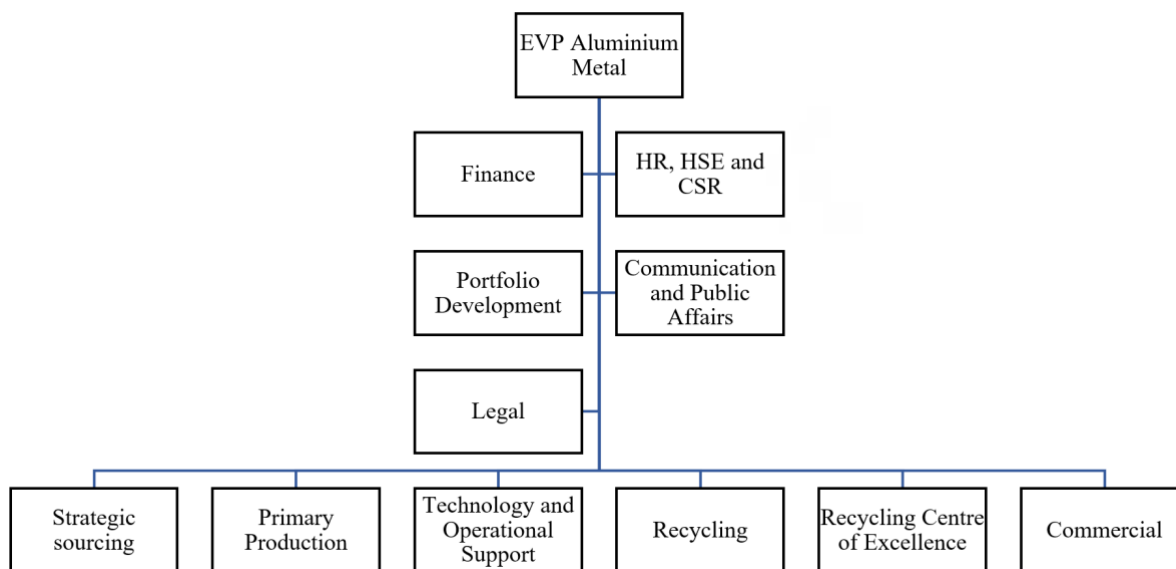
Figure 1. Example of Organisational structure of Aluminium Metal Business Section (Adapted from Hydros internal documentation)

2.1.2 Aluminium Metal Business System Principles (AMBS)

Aluminium Metal is guided by five AMBS principles: (1) standardised work processes, (2) defined customer/supplier relationships, (3) optimised flow, (4) dedicated teams, and (5) visible leadership. These principles build on its core values and are followed by Hydro's employees to deliver competitive performance. Each principle has a list of rules to be followed and a toolbox to achieve the principle. Of particular importance for our case study is the fourth and fifth principle, 'dedicated teams' and 'visible leadership'. 'Dedicated teams' describes how work is organised in the business area, both in line organisations and improvement groups for each operational area, as well as how they develop their employees and the organisation. Through this principle, they want to achieve *"effective teams with clear targets that share responsibility and commitment to get things done"* (AMBS Principle 4 Dedicated Teams, 2020). This is highly relevant in a matrix organisation, like in Hydro, where clear targets are required to align employees. The last principle, visible leadership, describes what kind of

attitudes and practices leaders need to convey when working according to AMBS principles and Norsk Hydro's core values.

AMBS Principle #5 Visible leadership describes what kind of attitudes and practices leaders need to convey when working according to AMBS and the values of Norsk Hydro
What they want to achieve:
- Leaders who have safety as their first priority and lead by example   - Leaders who develop their employees and organisation   - Leaders who are committed to show good results by working through their organisation
Through rules in use:
- Clear and visible: There is no uncertainty about the direction and the targets of the organisation   - Involve and delegate: Employees engage in decision processes and delegated tasks   - Support and coach: Employees are coached to improve performances   - Feedback and recognition: Employees receive regular feedback and recognition

Table 1. Characteristics and guidelines for the AMBS Principle #5 (Adapted from Hydro's internal documentation)

2.2 Leadership culture and current status on leadership development in Hydro

To understand what characterises the leadership culture at Hydro, we have collected information from our correspondents at Norsk Hydro as well as used the information gathered from our primary data collection, namely the interviews. This is because it is important to understand the leadership culture when exploring leadership development as a theme but at the same time it is difficult to understand the true leadership culture of an organisation purely from secondary sources. Based on our primary sources, it is clear that Norsk Hydro's leadership culture resembles the Norwegian/Scandinavian culture. In this sense, characteristics like giving people ownership and responsibility, and bringing everyone aligned in decision-making are prominent (Sund & Lines, 2016).

A crucial aspect of Norsk Hydro is that it is partly state-owned. The longstanding history of the company in Norway, as an employer and as one of the country's biggest companies, has its repercussions on Norsk Hydro's leadership culture and how Norsk Hydro is perceived by its employees and the outside world. Norsk Hydro is regarded as a relatively conservative company and its size and complexity leads to slow decision-making stemming from bureaucratic hurdles and a consensus-driven environment. This may be attributed to the Scandinavian influence and the scale of the company (Sund & Lines, 2016).

There seems to be an overarching leadership culture in Norsk Hydro and the Aluminium Metal division, which trickles down from the expectations and directions set by top management and is influenced by the Norwegian culture. However, there are indications that the culture may differ according to regional and/or national cultural differences. For example, in Brazil, employees prefer a more paternalistic leadership style where directions are clearly provided, and decisions taken by the leader alone. Nevertheless, Norsk Hydro's values of care, courage, and collaboration seem to be common traits that resurface regardless of cultural differences in the organisation.

2.3 Leadership development programs in Norsk Hydro

Over the years, Norsk Hydro has had a strong focus on developing its leaders and retaining its employees. An important component of this is to offer development opportunities. During the data collection process, many of the correspondents referred to leadership development programs they attended 15 to 20 years ago, indicating that these programs have been important methods for leadership development at the company for decades. This focus has grown recently, perhaps in line with the increasing need for skilful leaders in a complex environment. From the correspondents at Hydro, we understand that several leadership development programs are offered at Norsk Hydro in general, and the majority are developed and attended in accordance with leader level. For example, all new leaders in Norsk Hydro are invited to the program 'New Leaders in Hydro'. On the other hand, leaders who are in more senior positions in Hydro are invited to attend the "Hydro Executive program".

In general, all leaders are invited to attend the programs that are relevant for them. For example, all new leaders *should* attend the 'New Leaders' program. Not all the programs are mandatory, but they are encouraged. An overview of the current Leadership Development Programs in Hydro can be found in Appendix A. The content of these programs is likely to have changed throughout the years, as both the programs and the outlook on efficient leadership have developed immensely. Specific examples and analysis of what the leaders in Hydro experienced as strengths and weaknesses of the current leadership development programs will be detailed in chapter five.

In addition to leadership development programs, Norsk Hydro also offers and uses different methods to develop and support leaders in the organisation such as mentor programs and 360°

feedback. According to the correspondents, however, the mentor programs so far have been relatively unstructured in the organisation. 360° feedback seems to be avidly used, not only with a primary focus on leaders, but also other issues like team performance. 360° feedback is used as a general tool for feedback throughout the organisation, not only for leadership development, so this method is not the focus of this thesis.

3.0 Theoretical foundation

The following chapter presents a theoretical background of which we will base our consequent discussion on. As the focus of our research is on leadership development programs, theory underlining this will be presented first. To shape our analysis into leader and leadership development, we then present leadership capacity at the firm. Subsequently, because leadership development programs are founded in leadership development theory, we present this theoretical frame afterwards. We specifically focus on those aspects of leadership development theory relevant for leadership development programs whilst still providing a complete overview of the field. We distinguish between leader (intrapersonal) development and leadership (interpersonal) development in our presentation wherein subsequent themes like self-development, motivational theory and networks are included.

Furthermore, there are challenges involved when operating in a matrix organisation such as coordination and indirect lines of authority that are of relevance to leaders in this organisation. How to manage these challenges in the organisational structure that the leader finds itself in is a crucial component of developing as a leader. Therefore, we provide a contextual background of theory surrounding the matrix organisation. Subsequently, networking and communication are crucial components of making a matrix organisation work effectively and we, therefore, choose to focus on these aspects in the leadership development section. As an additional aspect to the matrix organisation literature, we also highlight emotional intelligence of leaders in line with its relevance for leader development. These factors are particularly important to understand the role that leadership development programs have in the organisation. Theory on transfer of training will form the next section of the theoretical background. Transfer of training forms an important part of how the knowledge learnt in leadership development programs is used after participation and as such, is also a fundamental part of our theoretical background. Finally, to fully consider the contextual background of this organisation, literature on the impact of cultural differences on leadership is also presented.

3.1 Leadership development programs

In the early 20th century, there was a broad assumption that people became leaders by virtue of their personal characteristics, and numerous studies attempted to isolate the qualities displayed in good leaders (Bolden, 2005). Factors such as *intelligence*, *self-confidence*, *level of energy and activity*, *dominance*, and *masculinity* were all seen to be key traits, yet none of these made it possible in themselves to distinguish leaders from non-leaders (Bolden, 2005). Now, it is evident that people with varied attributes make for distinct leaders and leadership styles, but it is impossible to determine what constitutes a great leader with a consensus. According to Allio (2005), the primary goal of a good leader is to reaffirm values and purpose, generate vision and strategy, maintain continuity, and initiate appropriate organisational change.

The annual report of the American Society for Training and Development shows that businesses invest heavily in management training to develop good leaders (Miller, 2012; Brown & Warren, 2014). In a survey, more than half of senior human resources executives said that creating the next generation of business leaders will be one of the most difficult problems in the next ten years (Brown & Warren, 2014). An aging population, particularly in the Western world, is another difficulty that businesses face. It indicates that many people in leadership and management positions are retiring, leaving less qualified personnel to take their place (Brown & Warren, 2014). As a result, there is a case to be made that purely investing in executive managerial training is insufficient, and that developing leadership qualities at all levels of an organisation is critical. Additionally, it is crucial that the investments made by companies into leadership development are of high quality and relevant enough to yield efficient leaders that strengthen the leadership capacity of the entire organisation.

One such investment is in leadership development programs. This method has become an increasingly larger priority for businesses and government organisations (Amagoh, 2009). When Googling "Leadership development programs", Google presents you with roughly 1.67 billion different results, indicating that this is a huge industry. Highly successful firms now put a strong emphasis on developing a comprehensive set of assessment and leadership development methods that support the organisation's diverse talent pool (Groves, 2007). Changing mindsets, a global emphasis, personnel development, and enhanced business and leadership abilities are all important components of a successful leadership experience and are therefore something that firms now put more money into evolving (Amagoh, 2009). In these

programs, it is essential that leaders are given the opportunity to practice new skills and knowledge in real work settings, and not just be given presentations on the theory behind it. Such programs should also focus on self-awareness, building great teams, and improving interpersonal interactions as these skills are seen to be crucial to an organisation's effectiveness and production (Amagoh, 2009).

According to Popper and Lipshitz (1993), a successful leadership development program has three components: (1) the degree to which a person believes he can perform effectively in a certain topic, known as self-efficacy, (2) being aware of different ways to motivate others and (3) the development of specialised leadership qualities. Leadership qualities are the skills that leaders employ when interacting with their followers, and oral and written presentations, interviewing, feedback, and group meetings are just a few examples (Amagoh, 2009). The effectiveness of interpersonal processes between leaders and subordinates tends to improve as leadership skills improve. These things considered; it is evident that investing in leadership development programs could have a positive impact on the organisation as a whole.

3.2 Leadership capacity

Surprisingly little literature surrounding the term leadership capacity exists. However, its relevance in how it forms organisation's ability to develop leaders internally and their ability to tackle VUCA environments indicate it is an important theoretical frame to understand for leadership development programs. As organisations and the world they operate in become increasingly complex, leadership throughout the organisation is required; Leaders at the upper management levels are not able to achieve everything that the organisation requires when it comes to leadership on their own. Therefore, building a community of leaders within the organisation is necessary (Kolzow, 2014).

> *"In order for organizations to improve their effectiveness, the mind-set should be shifted from viewing leadership development as strictly individual development to developing an organisation-wide community of leaders that learns and grows together through coursework, dialogue, mutual coaching, and accountability"*
>
> Kolzow, 2014, p. 284

Despite minimal reflections on leadership capacity in management and leadership literature, there is extensive use of the term in practitioner articles. This indicates a new importance of developing leadership capacity in organisations as they face new challenges. The term

originally stems from studies into school management, where it is argued that schools cannot rely purely on the school principal for leadership but that it needs to develop leadership capacity throughout the school. Leadership capacity can therefore be defined as *"broad-based skilful involvement in the work of leadership"* which requires a *"significant number of skilful [employees] that understand the shared vision [...] and the full scope of the work undertaken and who are able to carry them out"* and who *"are committed to the central work required".* (Lambert, 1998, p. 3-4). Leadership capacity is multifaceted and will include both leader development, such as individual skills and abilities, and leadership development such as interactions between leaders and followers (Kolzow, 2014).

Through a literature review largely based on literature from The Leadership Quarterly, Day, Fleenor, Atwater, Sturm and McKee (2014) consolidate the existing literature on leader- and leadership development. This review is used as a starting point for our theoretical understanding of the literature that exists on the multifaceted nature of leadership development. Leadership theory itself has a long history. However, the field of leadership development is less researched. Leadership development has been a popular phenomenon on the practitioner level, but it is only in the last 30 years where academic and empirical research has begun to strengthen the practice with theory (Day et al., 2014). The authors argue that prior theoretical development on leadership has been dependent on the belief that if consensus on leadership theory was reached, then leadership development would simply follow (Day et al., 2014).

However, understanding leadership development is far more complex as it has its roots in human development. Just like with leadership theory, leadership development may not have one right answer but will depend on numerous contextual factors like the company and/or the person (Day et al., 2014; Khan, Bhat & Hussanie, 2017). Historically, leadership theory has linked leadership to personality. This emphasises a perspective focused on disposition, making it difficult to base leadership development on leadership theory (Khan et al., 2017). Leadership theory also tends to focus on behavioural development, meaning that training is usually used to learn behaviours, whereas long-term development initiatives are used less so. Additionally, businesses and their leaders face more complex and fast-changing environments, which undermines the relevance of learning a behaviour that may have been taught to address one situation through training methods that merely provides solutions to known problems (Moldoveanu & Narayandas, 2019). However, the complexity of the current business world stresses that many problems are not known and its solutions even less so. Because of the

limitations of using leadership theory as a leadership development foundation, recent research on the latter focuses more on developmental science to understand and enhance development processes (Day, 2000).

Day et al. (2014, p.64) posits that *"the nature of leadership development is inherently multilevel and longitudinal"*. Amongst other things, this means that leadership development involves the understanding and evaluation of intrapersonal (within oneself) and interpersonal (between persons) processes in teams and larger collectives, and how these processes change over time. As such, an important distinction to make in the leadership development literature is between *leader development* and *leadership development*. Leader development is of an intrapersonal nature and focuses on individual leaders, and how to develop them as individuals. Themes like skills, experience, learning and personality have been studied in terms of intrapersonal content for leader development and transpire as important foundations for developing the expert leader (Day et al., 2014; Lord & Hall, 2005). Leadership development, on the other hand, is interpersonal and focuses on enhancing leadership capacity overall through developing relations between leaders. The following sections develop the idea of leader development and leadership development as two separate elements that make a whole in regard to strengthening leadership capacity.

3.3 Leader development

In this section we present the typical content of leader development programs based on literature regarding developing the individual leader's skills, abilities, and behaviours. Firstly, the literature on leader development seems to be in consensus that different individuals will need to learn different skills depending on their leadership experience and position. Mumford, Marks, Connelly, Zaccaro, and Reiter-Palmon (2000) found that different skills are required at different stages in a leader's career. For example, technical training to bolster expertise may be more important at beginning phases in ones' leadership career, whereas more advanced professional training adhering to complex problem-solving becomes more important as one moves from mid-level to senior leadership positions (Mumford et al., 2000).

Mumford et al. (2000) also found in a study of 1000 leaders at different hierarchical levels that when leaders become more senior, acquiring strategic and business skills is more important than interpersonal and cognitive skills. As a result, Mumford et al. (2000) suggest that

leadership training should be carefully tailored to ones' current development need, although they recognise the difficulty of this for companies' designing and implementing leadership development methods. Lord and Hall (2005) echo this theory in a similar fashion. They propose that the development of leadership skills requires self-motivation. As a leaders' skills progresses, the identity and behaviour of the leader is more and more guided by understanding the situation and collaborating with others (Day et al. 2014).

These examples suggest that the skills taught in leadership development programs should differ according to the needs of leaders at different hierarchical levels. Taking a different approach to the differences of leaders at various hierarchical levels, Hirst, Mann, Bain, Pirola-Merler and Richter (2004, p. 321) explain that leaders *"learn from challenging work, from solving complex problems, and from leading a team"*. They draw implications from this by positing that less experienced leaders have more to learn and are therefore more likely to encounter new situations than more experienced leaders. This hints that leader development programs may be more useful for less experienced leaders than more experienced ones. It also hints towards an on-the-job training approach as more conducive to development success.

In addition to the impact of hierarchical levels on leader needs for development, personality traits may also impact development needs. In 2011, The Leadership Quarterly focused on longitudinal studies of leadership development and a consensus in the articles found that leaders are products of their life experiences beginning at an early stage but that multiple forces affect their development throughout life (Day & Sin, 2011). For example, personality plays a more important role in the early development of leaders whilst experience is more important later. Harms, Spain, and Hannah (2011) studied a leader development program that showed a positive effect on participants over a three-year period. They concluded that leader development is a dynamic process and that personality traits moderate developmental processes by enhancing or inhibiting personal change over time. With specific reference to some personality traits, Li, Arvey and Song (2011) looked into the effect of mental ability, self-esteem, and familial socioeconomic status on whether an individual occupies a leadership position and leader advancement, with gender examined as a moderating variable. Self-esteem was found to have a positive effect on leader occupancy and advancement, for both males and females, but that familial socioeconomic status has a negative impact on leader advancement for women (Li et al., 2011). However, it was noted significantly more research was needed to underscore this last finding. Day and Sin (2011) further found support that how individuals

construct and manage goals can influence their development as leaders. These theories indicate that, not only should leadership development programs differ according to experience and seniority level of the leaders, but that it may be useful to design programs so that they suit the different needs and characteristics of the leaders. This will inevitability be challenging due to the complexity that may ensue.

Furthermore, process issues in leader development such as mentoring and coaching, 360° feedback, leadership training, job assignments, and action learning have also been highlighted in the research. These process issues shape the rate and/or pattern of leader development over time. 360° feedback, where feedback is distributed to a person from several parties including oneself, has received a lot of attention in the leadership development realm and it has mostly centred on practitioner-based articles. In the same vein, self-assessment has received attention as Ashford (1989) highlights that it is very important to understand how one is perceived by others to gain a more accurate self-view. A more accurate self-view strengthens one's ability to identify and understand one's strengths and weaknesses and as a result, enables better decision-making and behaviour. Methods like 360° feedback and mentoring can strengthen this self-awareness (Ashford, 1989). This suggests that the inclusion of such process issues into leadership development programs can be of added value in developing the individual leader.

Within leader development lies the concept of self-development. Self-development of leaders can be described as leaders that take responsibility for developing themselves. However, there is a "*relative lack of research on personal characteristics of individuals who engage in leadership self-development activities*" (Day et al., 2014, p.68). Reichard and Johnson (2011, p.33) aim to fill this gap because "*leader self-development is a cost-effective way for organisations to develop leaders resulting [potentially] in a competitive edge*". They propose a multi-level model of leader self-development that suggests that organisational-level constructs like HR practices (selection, training, and performance appraisal) can be linked to group-level phenomena like norms, supervisor style and social networks. As a result, this linkage promotes leaders' motivation to develop their leadership and engage in self-development behaviour. Despite the lack of research on leader self-development in this sense, this theory implies that when leaders take responsibility for their own development, it can have positive implications for the company (Reichard & Johnson, 2011). This indicates that focusing on leader development can also strengthen the overall leadership capacity of the firm.

To understand leader self-development, Boyce (2004) evaluated individual characteristics involved in work orientation (job involvement, organisational commitment), mastery orientation (self-efficacy, conscientiousness, openness to experience and intellectual maturity), and career-growth orientation (career exploration and feedback seeking) in relation to leader development. Individuals in the study who were more inclined toward career growth were more skilful in self-development activities, and an individual's level of work and mastery orientation influenced their willingness to participate in self-development activities (Boyce, 2004).

We can draw from the above research on self-development that motivation can be a contributing factor to how well one engages in leadership development programs and as such, develops as a leader. Kaufmann and Kaufmann (2009, p.89) defines motivation as *"the biological, psychological and social factors that activate, direct and maintain behaviour in order to achieve a goal"* (authors translation). High motivation is important for the success of leadership development programs because it is hard to teach and inspire someone who is not motivated to change the way they are working. It is consequently critical to recognise that people are motivated by a variety of factors, making it difficult to reach everyone with the same motivational drivers.

Additionally, motivation can influence how engaged you are in the leadership development programs, how much effort you put in and how much you use what you have learnt in the program after completion. In motivational literature, a distinction is often made between intrinsic and extrinsic motivation. *Intrinsic motivation* refers to doing something because you find it enjoyable and engaging, whereas *extrinsic motivation* refers to doing something because it produces the desired result (Ryan & Deci, 2000). It should also be emphasised that intrinsic and extrinsic motivations are not seen as two opposites where one excludes the other, but rather something that can occur at the same time. It is hard to be motivated solely based on external factors such as salary; one should also feel some form of intrinsic motivation. For example, whether it is of essence how you experience the work-tasks you are assigned, whether you can develop new skills, and whether you can master the challenges you face are examples of intrinsic motivation (Brochs-Haukedal, 2010). For our thesis, we consider both types of motivation to be relevant because people's reason for wanting to develop as a leader can be rooted in both intrinsic and extrinsic motivation. It is also critical for Hydro's leaders to understand how to drive their personnel. Because being a leader is frequently about encouraging your colleagues and getting them to strive toward the same goals as the business,

the ability to motivate others is an important feature to include in any leadership development program.

3.4 Leadership development

Leadership capacity includes both leader (intrapersonal) development and leadership (interpersonal) development such as building networks. Perhaps due to how practitioner-heavy the leadership development topic is, leadership developments' impact on organisational performance has been particularly focused on by researchers as well. Galli and Müller-Stewens (2012) performed a case study to find that the intensity of social capital differs and changes through phases characterised by contact (e.g. networks, off-sites, mentoring), assimilation (e.g. leadership training, 360° feedback) and identification (e.g. job assignments, action learning). Their results indicate that leadership development practices can vary in their potential impact on social development stages and thus, should be designed accordingly. This suggests that the level of networks, mentoring, training, and job assignments can have a strong impact on organisational performance, and that leadership development training can be a valuable avenue for pursuing organisational performance through its design to amplify social capital.

In a special issue of The Leadership Quarterly on authentic leadership, Avolio and Gardner (2005, p. 322) explained that authentic leadership development involves *"ongoing processes whereby leaders and followers gain self-awareness and establish open, transparent, trusting and genuine relationships, which in part may be shaped and impacted by planned interventions such as training"*. This shows that leadership training can serve the purpose of shaping impactful relationships between leaders and followers. Followers need to give leaders the legitimacy to promote values on their behalf and through this, leaders can elicit personal and social identification of their followers. As a result, companies are more prone to achieving outstanding performance (Avolio & Gardner, 2005).

Although the indication that authentic leadership development can impact interpersonal relationships and thus, organisational performance positively, the ability to achieve relational authenticity is moderated by gender. Eagly (2005) found that, traditionally, it tends to be easier for male leaders than female leaders to gain legitimacy to promote the values of their followers. This is because historically women have not been the ones representing followers in a community. Such a difference indicates that there is some value in designing leadership

development programs differently for women and men. Nevertheless, more research would be useful on this issue.

Furthermore, one component of increasing social capital through leadership development programs is the inclusion of feedback. Facteau, Facteau, Schoel, Russel, and Poteet (1998) explain that when leaders receive positive feedback, they are more likely to seek additional feedback and to set up development goals. Several theorists and researchers explain that merely relying on the existence of methods like 360° feedback is not sufficient to have an impact on organisational performance, its use needs to be integrated to reap collective benefits. For example, Seifer and Yukl (2010) did a longitudinal field experiment on middle managers to measure how leadership effectiveness differed according to number of feedback sessions. They found that middle managers receiving two feedback sessions were more effective than those who only had one. As a result, they propose that allocating more resources towards the feedback process can have a positive impact on leadership effectiveness. Hooijberg and Choi (2000) suggested that 360° feedback can help managers understand the expectations of the different groups. Hence, theories on feedback indicate that when leaders receive feedback it can enhance their development through raising self-awareness, identifying what areas they should improve. Additionally, open feedback between various parties enhances interpersonal relationships in the organisation. Leaders may therefore benefit if feedback and goal setting are incorporated into development programs to reap the benefits for the leader and leadership development in the organisation.

To conclude the theoretical frame surrounding leadership development, we want to point out that there has been scholarly difficulty in advancing the leader and leadership development theoretical realm, especially in regard to methodological and analytical issues. For example, using job-performance or performance-change over time as a measure of leadership development cannot be considered fully appropriate as a measurement. Markers of leadership development should be the focus more so than purely measuring performance as a consequence of leadership development (Day et al., 2014). It is difficult to evaluate leadership development due to the different contexts in which they occur, who participates, their different levels and positions, and so on. Performance, for example, is influenced by a variety of factors, making it unlikely that leadership development will be the only direct influence on this outcome. Though change is often a major part of leadership development evaluation, even in the design phases, uncontrollable events cannot be eliminated. Some efforts have, of course, been made. For

example, social network analysis can be used to evaluate if a leadership development intervention has led to changes in connectivity in an organisation (Day et al., 2014).

Particularly important from the leadership development research highlighted above, is how it recognises that leadership development, as a dynamic process, is shaped by a variety of different skills to be developed, different personality traits inherently dispositioned and behaviour to be learnt through experience, and social interactions like feedback and networking. There is significant support for tailoring leadership development interventions to the specific needs of the leader. However, because it takes in general a decade to become an expert on something, it is unlikely that purely participating in leadership programs, workshops, and seminars will result in fully developing as a leader. Rather, it is in the "white space" of day-to-day activities, outside specific leadership development interventions, where people develop into expert leaders. Day et al. (2014) point to the importance of examining how leaders' practice leadership and develop in their day-to-day.

Despite the distinction made between leader and leadership development, we take the view that enhancing leadership capacity in an organisation cannot be made without developing individual leaders within the organisation. At the same time, strengthening leadership capability of the individual leaders in an organisation and the relationships they form within the company, and with their followers, will have a collective impact on the enhancement of leadership capacity. In essence, the two development processes are not mutually exclusive, but one cannot occur without the other.

3.5 Matrix organisation

Since Hydro is built in a matrix structure, we also consider theory on leadership training in the matrix organisation to be of relevance. Understanding the context in which leaders are developed is critical to gain the wider perspective of the leadership development programs implications on leader and leadership development. However, the connection between leadership development and the matrix organisation is lacking in the literature. Due to the growing complexity of organisations and the increasing use of matrix structures in corporations, this field requires further attention.

The matrix organisation is defined by employees reporting to several managers, and as a result, responsibility is delegated throughout the organisation (Sy & Côté, 2004). It is often used in organisations that work on highly technical projects requiring competent people with different expertise (Newstrom & Davis, 1993). The structure can be illustrated as a rectangular grid with a vertical flow of functional responsibility and a horizontal flow of product responsibility (Jones, 2004). Some organisations adapt this structure to fit the needs of the organisation. A key component of the matrix organisation is that it requires the maintenance of a constant balance between business dimensions. Unclear roles and responsibilities lead to ambiguity within this balance that subsequently can materialise into conflict and tension between employees (Sy & Côté, 2004). These tensions are inherent in the matrix structure but can also be a desirable feature.

Training can determine the success of a matrix organisation (Sy & Côté, 2004). The top matrix organisations incorporate ongoing training into their structures, and it is designed to reinforce desired behaviours in the company. Training in these top matrix organisations helps managers develop skills like negotiation skills, conflict management skills, and leadership skills. Training that is incorporated into the structure specifically caters to teaching managers capabilities that are crucial for the success of the matrix performance such as collaboration and cooperation. Furthermore, Sy and Côté (2004) explain that many researchers and managers believe that training and development programs can improve emotional intelligence, the capability of which has many advantages for the matrix organisation, as will be described below. This suggests that leadership development programs should include aspects of coaching and/or 360° feedback to reap these benefits.

It is valuable to consider the various advantages and challenges that leaders and employees face when working in a matrix organisation as it can have significant influence on how leaders manage their employees and therefore what areas they may need development in. Advantages of the matrix structure include the ability to optimise the use of skilled professionals for various needs in the organisation. Cross-functional teams also allow for a reduction in functional barriers. This facilitates communication, integration, adaptation and learning across the organisation (Burns, 1989). Organising the company in a matrix structure can allow for flexibility to target different goals and to pool human resources in different ways according to the organisation's current needs (Sy & Côté, 2004).

However, there are some challenges with a complex structure like the matrix, which Davis and Lawrence (1977) describe as potential illnesses. The matrix organisation, if not managed properly, may lead to challenges like power struggles due to unclear role responsibilities and uncontrolled layering if too many matrices exist within each other. Additionally, Davis and Lawrence (1977) identify severe *groupitis* as an illness, which diagnoses a scenario where people believe that matrix management is the same as merely making decisions as a group. Lastly, within this structure, the organisation may suffer from too much democracy and not enough action. This may lead to slow decision making and a slow-moving organisation. Importantly, to mitigate these risks, managers need to develop special skills, such as the ability to relate to other people, and address special issues to ensure a well-functioning matrix organisation (Røsdal, 2005). Finally, the matrix organisation is often designed to accompany many differing goals in the organisation. Nevertheless, aligning these goals can be a major challenge (Sy & Côté, 2004).

3.5.1 Communication in a matrix organisation

Due to the overlapping responsibilities and numerous lines of authority and connections across teams and functions, organisational communication is key for this structure. If communication is managed correctly, the organisation can reap benefits like improved productivity, higher quality, increased levels of innovation, reduced absenteeism, and costs (Røsdal, 2005). Both formal and informal communication networks need to be managed and fostered. The formal network includes the people assigned to a team to complete a project or a job. However, the formal lines of communication may not capture all aspects of the organisational communication and therefore, informal networks like coffee talks and connecting "through the grapevine" holds importance (Røsdal, 2005). The communication network structure influences the quality of the organisational communication, which in turn affects the organisational climate. Hargie and Tourish (1998) posits that *"an open communication climate is dependent on what values and decision strategies leaders and managers choose to use and implement"* (Røsdal, 2005, p. 45). Røsdal (2005) further explains that leaders and leadership behaviour are the key determinants to the quality of organisational communication. Because Hydro is organised in a matrix, its leadership development programs should pay attention to how to lead in an organisation of this structure.

Furthermore, through a study on knowledge communities, Nesheim, Olsen and Tobiassen (2011) present different constellations, both formal and informal, that influence communication in an organisation. Nesheim et al. (2011) identify that intra-organisational formal communities form a horizontal overlay, creating a vital context for knowledge processes in matrix organisations. However, in addition to formal communication patterns, employees also belong to a secondary knowledge community. In such contexts, the management of formal communities and the support from the line managers are critical. The complexity of managing informal and formal communities is highly relevant in matrix structures and companies should recognise this challenge by including components in leadership development programs that mitigate this, such as network building. The authors describe one study aimed at the management role in communities that found that management quality impacted both interaction frequency and quality among members (Zboralski, 2009). This suggests that the quality of managers has an influence on how often members of an organisation interact and the quality of that interaction. In addition, research has found that being supportive, fair, and participative strengthens empowering leadership, which, as a result, has a positive relationship with knowledge sharing among management teams (Srivastava, Bartol & Locke, 2006). Nesheim et al. (2011) found that when communities are led by managers who understand social processes, stimulate discussions, and disseminate best-practice information, knowledge application is positively affected. Additionally, when employees feel they have support from the line managers, they are likely to retain more knowledge from their community.

Moreover, there is a relationship between intrinsic motivation and knowledge sharing (Foss, Minbaeva, Pedersen & Reinholt, 2009). Intrinsic motivation is considered beneficial when activities employees engage in require a willingness to learn, when the knowledge is tacit and when knowledge sharing is to an extent voluntary (Osterloh & Frey, 2000). Nesheim et al. (2011) propose that if a person is intrinsically motivated to learn and share knowledge, he or she is more inclined to join and participate in knowledge networks. As a result, the employee tends to engage in discussions, ask questions, seek relevant information and "*look for solutions to the challenges they confront in their own organisational unit*" (Nesheim et al., 2011, p.841). As the authors note, this establishes a foundation for knowledge application. This relationship is relevant as it links motivational theory to the concept of networking in an organisation, a seemingly vital component of the matrix organisation to induce cooperation and collaboration.

3.5.2 Networking in a matrix organisation

Networking has been highlighted as a key social mechanism both inside companies and across in many research fields. This falls into the leadership development category as it regards the interpersonal relationships between individuals. Gibson, Hardy and Buckley (2014) define networking as a goal-directed behaviour focused on creating, cultivating, and using interpersonal relationships inside and outside an organisation. Theorists have identified many influencing factors on networking on the (1) organisational level, (2) job level and (3) individual level. Research has further suggested the following antecedents to networking: (1) organisational culture, industry, (2) job level in an organisation, type of job, hours per week worked, (3) personality, self-esteem, attitudes towards workplace politics, marital status, education, and gender. Most literature on networking to date is centred on the individual.

However, literature posits that networking can have implications on the organisational level too. For example, Thompson (2005) found that networking can be tangentially related to job performance because employees, through their connections and resources, seek more ambitious projects, impacting performance. In light of this, Gibson et al. (2014) suggest that it could be valuable for companies to train employees in networking. This can have further advantages in fostering interorganisational communication and teamwork, as well as provide a foundation for employees to collect information that can help the company strategically. Furthermore, it has been suggested that networking can lead to positive outcomes like increased visibility and power, job performance, organisational access to strategic information and career success. Additionally, networking can positively influence the development of personal and professional opportunities by stimulating interpersonal relationships and thereby enhance organisational communication and access to resources.

Moreover, Bartlett and Ghoshal (1990) argue that organisations need to create multidimensional organisations considering, not only their organisational structure, but also their physiology and psychology, for example corporate norms and beliefs. The matrix organisation structure is a good foundation, but it is also important to enrich and clarify communication and decision processes to reinforce the organisational physiology and psychology. Bartlett and Ghoshal (1990) posit that companies that focus on developing the abilities, behaviour, and performance of managers rather than having the right structure are more likely to be successful. Managers that have a matrix mindset that includes flexible perspectives and relationships is more effective because it allows them to make individual

judgements and negative trade-offs, which consequently push the organisation toward a shared strategic objective (Bartlett & Ghoshal, 1990). In light of this, combining networking as a core component within the matrix structure can be beneficial for developing successful managers.

When considering the interrelationships between parties in an organisation, the ability to perceive others' emotions and expressing one's emotions is a critical factor. This can be defined as emotional intelligence. Through this ability, a person can guide thinking in self and others, understand how emotions operate, and manage and regulate emotions in oneself and others (Mayer & Salovey, 1997). As mentioned, the various goals of the organisation can lead to frustration and stress from employees when goals are misaligned. This can influence the interpersonal relationship between people in the organisation (Sy & Côté, 2004). Sy and Côté (2004) proposes that the best way to manage this is to communicate the conflict to peers and superiors. As a response, superiors may however perceive this as a complaint or be surprised or angry with the employee. Employees that possess emotionally intelligent qualities can understand how and why the stress and frustration occurred and address it appropriately. Simultaneously, emotionally intelligent superiors can recognise that the employees are stressed and frustrated, better understand them, and thereby, not respond negatively but in a manner to solve the conflict instead (Sy & Côté, 2004). On both sides, employees and leaders can identify what is causing the tension and address it.

Furthermore, Sy and Côté (2004) found that decision-making in matrix organisations take longer and are sometimes of lower quality than in traditional structures. They argue that emotions influence decision-making. For example, anger can influence information processing negatively. However, individuals that are emotionally intelligent can improve the speed and quality of decision-making through using their emotions to guide and manage thinking in their selves and others (Sy & Côté, 2004). As such, leadership development programs should have a focus on developing emotionally intelligent leaders.

In many organisational structures, employees tend to have a silo-focus (Sy & Côté, 2004). This means they tend to focus on their particular team and unit, not on matters in the periphery. This is also the case in matrix organisations. What challenges this further, is the excessive need for collaboration due to multiple lines of authority. The silo-focus impedes collaboration and cooperation. However, people that possess emotional intelligence can cooperate and

collaborate better by building strong relationships because perception enhances empathy (Sy & Côté, 2004). Therefore, designing leadership development programs to develop emotionally intelligent leaders can enhance collaboration and cooperation, mitigating a major challenge of matrix structures. In essence, emotional intelligence as a concept can fall under the leader development as well as the leadership development category. It falls within the leadership development category because emotional intelligence can spur collaboration and build interpersonal interactions between people in the organisation.

3.6 Transfer of the training learned in the programs

As organisations continue to make large investments in leadership development, they increasingly expect those investments to provide benefits in the form of improved firm performance and competitive advantage (Baldwin & Ford, 1988). However, many organisations make use of training methods without recognising the importance of facilitating transfer of training for learning and retention. Since Baldwin and Ford's (1988) main theory about transfer of training, a problem has been identified in organisations signalling that a limited amount of what is learned in training is actually used on the job. This issue is critical for our research question as it targets a crucial challenge of leadership development programs: how to ensure what is learnt in the programs is used by the leaders after completion. In the same vein, this issue is fundamental for ensuring that when a leader develops, this development can be transferred into strengthening the company's overall leadership capacity.

Research suggests that participants of leadership development programs lose the knowledge learnt over time. Fleishman (1953) studied the transfer of training concept following a leadership training program for foremen in a motor truck plant. He found that, right after the training, the program caused the desired impact: an increase in consideration attitudes and a decrease in initiating structure attitudes, meaning the extent to which the supervisor defines or facilitates group interactions towards goal attainment. However, once the participants were back in the plant, there was no permanent change in attitudes or behaviours. As such, Fleishman (1953) argues that there is a danger with evaluating the effect of transfer of training immediately after the actual training. When studying the effect of leadership development programs or training in general, many theorists focus on training only immediately following the training and not after a longer period of time. Fleishman (1953) attributed two reasons for why the leaders returned to normal: the transfer of training problem and the failure of the work

environment to support the training. The supervisor and leadership climate were found to be more important in shaping attitudes and behaviours than transfer of training; Existing behavioural patterns and the culture at work had stronger influences on attitudes and behaviours in the team (Fleishman, 1953). This indicates that leadership is critical in shaping attitudes and behaviours, which implies that developing leaders to strengthen leadership capacity is a valuable insight. Transfer of training can serve as an avenue for strengthening the development of leaders, in turn shaping attitudes and behaviours in the workplace to spur better performance.

Baldwin and Ford (1988) have produced the most cited and widely recognised model on transfer of training. They proposed a framework for examining the transfer process, categorising the training inputs into trainee characteristics, training design and work environment characteristics. These predict two training outputs: learning and retention. The research identifies trainee characteristics, work environment and learning and retention as predictions for the conditions of transfer, namely generalisation and maintenance. Generalisation involves the ability to apply the training to workplace contexts. They argued that a critical condition for transfer is maintenance, that is, maintaining the learning outcomes so they do not decline over time. Several research studies recognise that learning declines over time (Brown & Warren, 2014). This model is important to consider when designing leadership development programs so that the content can be generalised and maintained, inducing transfer of training into the workplace.

Blume, Ford, Baldwin, and Huang (2010) and Salas, Milham, and Bowers (2003) distinguish the facilitation of transfer of training further by analysing open skills versus closed skills. Closed skills are skills like computer software and mathematical analysis. These skills can easily be transferred from one context to another. On the other hand, open skills are skills like leadership. Skills are linked to training objectives that consequently are linked to learning principles. Open skills are therefore more difficult to apply to different contextual environments because the learning principles need to be adjusted accordingly (Blume et al., 2010). In other words, unlike closed skills, open skills do not involve using specific formulas or solutions that can be applied to every scenario or problem. Blume et al. (2010) found that predictor-transfer relationships such as trainee experience and motivation were stronger for open skills than closed skills. For example, being motivated to learn an open skill through a leadership development program can be conducive for later transferring the training into daily work. For open skills, there is a freedom to outperform. Moreover, Salas et al. (2003) argue

that those people that are motivated to learn new open skills will be more likely to seek out opportunities for applying the skills in the workplace. This research indicates that developing open skills requires a particular focus on transfer of training so that the learnings are not lost post-program.

3.6.1 Transfer of training and motivational theory

The following section attempts to combine the transfer of training concept with motivational theory and goal setting. Goal setting is a vital component in motivational theory and motivation is regarded as a key trainee characteristic in Baldwin and Ford's model for transfer induction. Goal setting increases motivation through setting specific and difficult goals that employees can work towards. Additionally, when employees engage in the goal setting process it is considered an effective motivational factor (Locke & Latham, 2002).

Goal setting as a motivational factor can be regarded as a facilitator to transfer of training. However, Gist, Stevens, and Bavetta (1991) propose that certain conditions regarding goal setting provide superior transfer more so than just goal setting in itself. To gain superior transfer of training, self-management training should include the following three components: developing a contract that involves goals, self-coaching of progress relative to that contract and allocating incentives based on contract progress (Brown & Warren, 2014). Nevertheless, Gist et al.'s (1991) study is limited in that transfer was evaluated close to completion of training. As such, the transfer of training problem may also be impactful here. However, this shows us that a participative process of goal setting can be conducive to transfer of training, which suggests that this process should be encouraged by the company by involving goal setting that can be followed up in the programs. It might be useful for companies to encourage the leaders of those participating in the programs and those participating to reflect together and set goals for the programs. Perhaps there is also room for designing the programs with this process embedded.

3.7 Cultural impact on leadership

Because Hydro operates as a multinational company, the cultural impact on leadership needs to be considered. As employees from various nationalities will attend Hydro's leadership development programs, inclusion of this theory as a background is important. Research into cross-cultural leadership becomes increasingly important as the global economy becomes more

synthesised and cultural diversity challenges multinational organisations and their leadership (Akiga & Lowe, 2012). The GLOBE research project (Global Leadership and Organisational Effectiveness) aims to fill the gap of cross-cultural theory that exists in the literature, namely practical knowledge, and advice that leaders need to manage cross-cultural teams effectively. Since the 1970s, research into the cultural influences on leadership theory has burgeoned (Akiga & Lowe, 2012). However, there is still strong inconsistencies in research, a lack of theoretical foundations into the findings and methodological failures. House, Wright, and Aditya (1996) argue that there is a need for developing leadership theories that transcend cultures so that they are relevant for managers and leaders to use, no matter what culture they are leading in. Nevertheless, finding universal theories like this can be difficult. Instead, many leadership theories have been supplemented to include cultural differences as antecedents or moderators.

The GLOBE project can be described as a multi-phase, multi-method project that examines the interrelationships between societal culture, organisational culture, and organisational leadership (The GLOBE Project, 2004). The project has identified global leadership dimensions and has evaluated the extent to which each of the leadership dimensions are universally endorsed or whether they vary by culture. Through the project and the significant empirical research in existent literature, the authors argue that culture influences what is expected of a leader and how leadership is viewed. For example, in Latin and South America leadership is glorified whereas in Scandinavia, leadership is viewed as softer and more participative. House et al. (1996) posit that one leadership style that works in one culture may not translate into another culture. The results of the GLOBE project indicate that for companies to excel, their leaders that work cross-culturally must understand and exceed the leadership expectations in the cultures they are interacting with (The GLOBE Project, 2004).

Because Norsk Hydro is originally a Norwegian company and has many Norwegian leaders, we focus the literature on Norwegian leadership styles. Sund and Lines' (2016) research into Norwegian leadership styles proposed seven facets of the style. The Norwegian leadership style tends to actively promote a small distance between leader and follower and promote an active involvement by followers. For example, this means that followers take an active part in goal setting and deciding on their responsibilities, and they are encouraged to challenge the leader if the situation calls for it. Norwegian leaders also view mistakes as a natural consequence of the freedom they allow in their subordinates' work and the leaders exhibit care for their

employees beyond merely hierarchical ranking and work. In addition, the Norwegian leadership style fosters a strong sense of community through, for example, encouraging sharing of information throughout the organisation (Sund & Lines, 2016).

Lastly, the culture in Norway influences the leadership dynamics in a company with regards to Norway's' low power distance compared to other countries like Brazil where there is a greater distance between the leader and follower (Hofstede Insights, n.d.). Psychological safety is fostered in the organisation through allowing mistakes and being able to communicate with people at various hierarchical levels. Leaders in Norway also tend to put a lot of trust in their subordinates, which is rarely taken advantage of but rather encourages commitment by the subordinates. This stems from subordinates that thrive with a certain level of freedom and are self-driven to achieve goals (Sund & Lines, 2016). In countries like Brazil, these dynamics are not prevalent and rather cause hesitation by followers if they encounter such a leadership style (Hofstede Insights, n.d.).

3.8 Proposed Theoretical Model

In light of the theory described above as a basis for answering our research question, the following model is proposed.
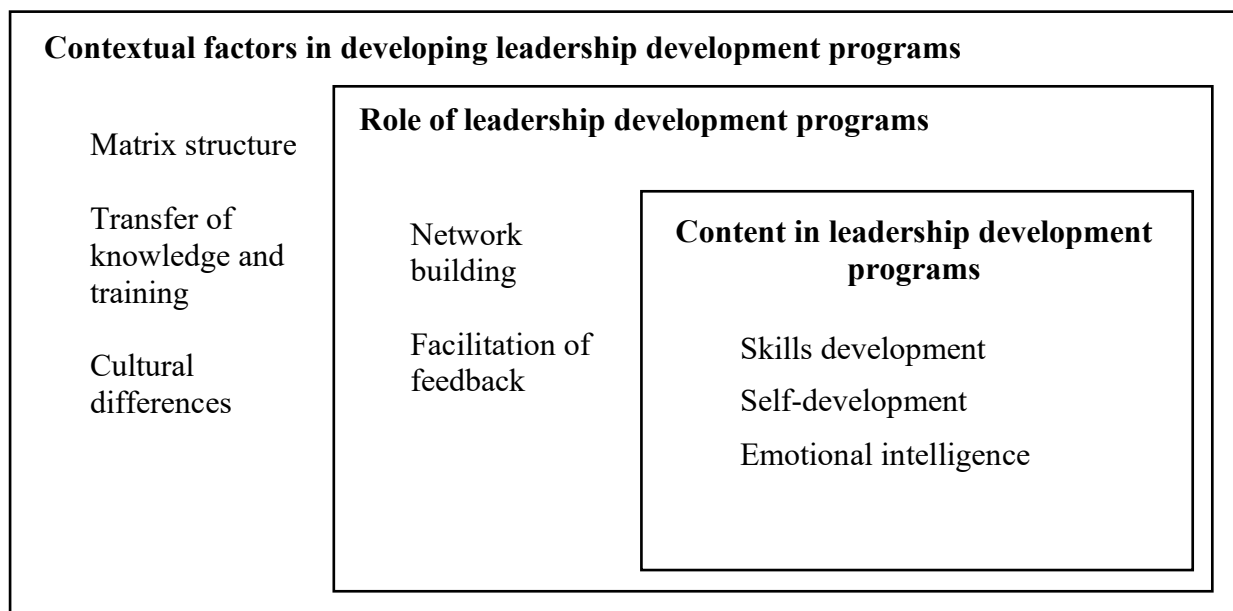
Figure 2. Theoretical model to answer how leadership development programs can help to strengthen leadership capacity in the firm

4.0 Methodology

This chapter will explain and justify the approach applied to address the research question. First, we will go over the research design we used to find out how Hydro's leaders experience their company's leadership development programs. Following that, a description of how we achieved reliability and validity in our research will be offered, along with the data-gathering technique and how we opted to analyse the data. Finally, we will go over some of the ethical issues we encountered while collecting and analysing data, as well as how we addressed them.

4.1 Research design

According to Saunders, Lewis, and Thornhill (2019), a research design is an overarching plan for how you will approach the research question(s). The strategy should include information about the data sources you used, how you obtained and analysed it, and any ethical issues or constraints you faced (Saunders et al., 2019).

4.1.1 Research purpose and approach

In exploratory studies, the researcher(s) often has no clear notion of what circumstances are likely to exist, so it is common to analyse the phenomenon in a new light and make predictions for the future (Gripsrud, Olsson & Silkoset, 2016). Since the goal of our study is to build and offer nuances to prior theory and concepts in the creation of leadership development programs to improve leaders and leadership potential, we chose an explorative research design. We examined both primary and secondary data in the form of individual in-depth interviews, and publications and internal documents from Hydro, which are characteristics of an explorative study (Gripsrud et al., 2016). The exploratory approach enabled us to ask open-ended questions, gather in-depth insights, and adjust our research question when/if new information became available.

In our research, we wanted to understand how leaders at Hydro experienced the company's leadership development programs, and in this sense, what they believe is required for such a program to be regarded a success. To get to the core of this, we decided that the best approach was to conduct a small number of in-depth interviews and analyse secondary data obtained from Hydro. This is consistent with an inductive research approach (Saunders et al., 2019). Since we based some of our analysis on existing theory, we could also argue that we have an element from the deductive approach. However, in our research, we developed hypotheses

rather than testing them, indicating that we used an inductive technique (Saunders et al., 2019). Furthermore, an inductive approach is a flexible and unstructured procedure that allows us to consider various reasons for what is happening while also using our subjective interpretations of the interviews conducted (Saunders et al., 2019; Gripsrud et al., 2016).

4.1.2 Research strategy

In exploratory studies with an inductive approach and a seemingly intensive research plan, it is normal to use a *case study* as the research strategy (Saunders et al., 2019; Yin, 2013). Yin (2013) defines a case study as a strategy that uses data triangulation to analyse a situation in its real-world setting. Given that this research is being conducted by two students with a limited timeframe, we decided to concentrate our efforts on a single case: Hydro Aluminium Metal. By using a single case study as our research strategy, we were able to gain a holistic understanding of how leaders in Hydro experience the company's culture, how they experience strengths and weaknesses of leadership development programs in the company, and how Hydro can assist them in becoming more successful. Because of the scope of this thesis, we chose interviewees from Hydro Aluminium Metal who were expected to be participants in the next leadership development program. Because the researchers had pre-existing connections in this area of the company, the leaders in this field were the logical case study subjects.

The company Norsk Hydro was chosen as the focus of our study because it is a fascinating and intriguing case. Norsk Hydro is one of Norway's major worldwide enterprises, with a variety of different management levels, and they allocate ample time and money to leadership development programs around the world. Norsk Hydro accepted to participate in this study because they were also interested in learning what their employees consider to be important parts of a leadership development program and how they could best support them. It is also an international organisation, which adds to the case's intrigue since its leadership development programs must be engaging and motivating for employees from many cultures and backgrounds. Although these insights have the potential to be used by other international corporations, that is not our primary purpose.

4.2 Research method and gathering of data

We found it beneficial to use both primary and secondary data in our research. We gathered primary data by conducting in-depth interviews with Hydro's managers and executives at

various levels, as well as accessing secondary data from the HR department and the Aluminium Metal division in the form of documents and presentations. We were able to reap the benefits of *method triangulation* by ensuring a larger diversity of perspectives and information to shed light on our research problem, as well as analysing any data compliance or deviation. This strengthened the results of the study and improved both its reliability and validity (Saunders et al., 2019; Grønmo, 2004). We will return to this later in this chapter.

4.2.1 Qualitative data collection

Interviewing people who are expected to have information that can be useful to the research is one of the most utilised qualitative methods. When a person's experiences, points of view, and self-awareness are of interest, interviews are ideal (Thagaard, 2009). The respondents can then tell the researcher(s) how they react to a particular scenario and how they interpret their own life experiences (Thagaard, 2009). This means qualitative interviews are ideal for interpreting data, gaining a better understanding of the situation, and comprehending the context, something that is true for our research (see e.g., Thagaard, 2009). We intended to dig deeper in our research rather than wider, which necessitated a more thorough research design.

Thanks to our connections with Hydro, we were given access to documents that allowed for data triangulation. As described in chapter two, we were given documents that outlined the five Aluminium Metal Business System principles that guide employees in the Aluminium Metal business area. Each of these documents define in detail each principle, focusing on what they want to achieve, what rules are in use to achieve the principle and what tools and methods are used. They also explain why each principle is important, what Hydro's clients anticipate in connection to the applicable ISO standard, and how to apply the principle in different roles. Principles #4 and #5: 'Dedicated teams' and 'Visible leadership' were especially important for this research paper. As a result, these texts were examined in greater depth than the other concepts. Our contact in Hydro also provided us with an example of a relevant organisational structure for this business sector. This helped us understand how teams are structured, which was important for understanding the contextual component of the analysis regarding the matrix structure.

4.2.2 Selecting the sample

Our research is based on information from a group of twelve Hydro employees, consisting of ten leaders from three different hierarchical levels and two HR employees. In addition to this, we also interviewed two persons from outside the company who supplied us with background information about leadership development programs in general. Only the ten leaders from Hydro, however, will be cited on their statements. We picked a modest sample size because we wanted to spend sufficient time with each respondent to ask follow-up questions and give them the opportunity to elaborate on the topics as much as they wanted to, rather than rushing through the questions to save time. Again, depth over breadth was the goal here, and thus, it was critical to choose interviewees who had the necessary qualifications, abilities, and knowledge to help us answer our research question (Thagaard, 2009). This means that the interviewees had to meet the following criteria: (1) be a leader in Hydro, (2) be nominated for future leadership programs, and (3) preferably, have taken a leadership development program at Hydro. As a result, we picked purposive sampling as our sampling approach, and based on these criteria, we received a list of 13 potential interviewees from one of our Hydro contacts. We made sure that the potential interviewees were split evenly throughout the three hierarchical levels of leaders in the business area.

Ten leaders, four from level 1, three from level 2, and three from level 3, accepted the offer to be interviewed. Level 1 is the highest of the three levels. As an example, in a company, the title 'Head of Sales' could be used to describe a level 1 leader. We refer to the leaders in this manner since it is how our Hydro correspondent first described them. In terms of gender, each hierarchical level included at least one male and one female interviewee. Level 1 leaders tended to have more leadership experience, which is to be expected as they have advanced in the firm. The majority of the interviewees had worked for Hydro for more than ten years, with some having no prior job experience in other companies.

Respondent	Respondent category
Leader 1	Leader on level 1
Leader 2	Leader on level 1
Leader 3	Leader on level 1
Leader 4	Leader on level 1
Leader 5	Leader on level 2
Leader 6	Leader on level 2

Leader 7	Leader on level 2
Leader 8	Leader on level 3
Leader 9	Leader on level 3
Leader 10	Leader on level 3

Table 2. Overview of the interviewees

In November and December, we interviewed nine of the leaders, with the last one in January. We continuously met with our two HR correspondents at Hydro, who provided us with insights into the company's organisational structure, how they view and perform leadership in the organisation, and how they prepare for leadership development programs. They also answered any additional concerns we had regarding Hydro. These discussions provided us with the necessary background information as well as answers to any queries we had about the data collection.

4.2.3 Structuring the interview

According to Saunders et al. (2019), unstructured and semi-structured interviews are best suited for studies with an exploratory purpose and where the data will be analysed qualitatively. We chose the latter based on recommendations for researchers with limited time and experience, and because a semi-structured interview combines the benefits of structured and unstructured interviews by allowing for more detailed descriptions while maintaining a solid structure that makes cross-interview comparisons possible (Thagaard, 2009). Therefore, it was essential for us to prepare an interview guide to ensure a similar structure in each interview to simplify the analysis, and further ensure that we covered all relevant topics. Still, the guide was designed to be flexible enough for us to pose relevant follow-up questions and ask for clarifications or examples when needed. At the same time, we wanted the interviewees to have some control over the direction of the interview, so they could tell us what *they* thought was important rather than being forced to talk about what *we* wanted to know. This frequently resulted in the discovery of intriguing issues.

We made interview guides for two different scenarios: one for when the interviewees had only been subject to the Norwegian leadership style, and one for when the interviewees had a more global view on leadership because of their nationality, background, deployment, etcetera. Even though there were a couple of differences, the themes of each interview were the same, and in some instances, we also mixed the questions depending on the direction the interview was

taking. To pick the right questions for each interviewee, we started each interview in the same way, by asking them to introduce themselves, their background, and their experiences within Hydro. This made it easier for us to understand what type of leader they might be, as well as understand how they use their background towards their leadership journey.

Even though we had an inductive research approach, we followed Thagaard's (2009) recommendation and based our interview guide on relevant literature. Prior to the interview process, a central part of the preparations was to adequately build up knowledge about Hydro, leadership development programs in general, leadership culture, transfer of training, and the importance of goal setting. We used Hydro's webpages and annual reports, and information and PowerPoints given to us by our contacts in Hydro. These resources contained information about the AMBS principles, as well as studies and reports about leadership development programs in general.

When making the interview guide, it was essential to ask open-ended questions like *"drawing on your own experience, what type of…"* and *"can you tell us a bit about…"*. The purpose of this was to ensure that the interviewees spoke from *their* perspective and based on their own experiences so that their answers would be more nuanced, and we would obtain even greater insights (Saunders et al., 2019). Silverman (2013) emphasises that it is essential to use open-ended questions when we want the interview to contribute with information about authentic experiences (referred to in Thagaard, 2009, p. 97).

It was also important for us to avoid asking *guiding questions* to the interviewees. Had we not done that, guiding questions may have led the interview in a direction where the interviewee would feel expected to agree or disagree with the interviewer, instead of answering based on their own gut feeling (Saunders et al., 2019). We also avoided using heavily theoretical concepts or jargon, since our understanding of these may vary from the interviewee's understanding. For example, we experienced that many of the interviewees used the term "matrix organisation" as a broad description of any complex team structure. To mitigate misunderstanding, we clarified this with our HR correspondent in Hydro and ensured that what was described in the interviews as a matrix team or organisation, correctly reflected both what the interviewees intended as well as how the literature describes the matrix structure. This was important to ensure good concept validity and was something we kept in mind when preparing the interview guide (Saunders et al., 2019).

Through this process, we structured the questions into overarching themes. The first couple of themes remained the same for all the interviews, whereas the following themes would depend on the direction the interviewees led the conversation. Below we present some of the themes and some examples of the questions asked.

Theme	Questions
Introduction and background	• Tell us a bit about yourself and your background
Leadership	• How would you describe the leadership culture at Hydro? • Thinking of a recent situation you as a leader has experienced, what factors do you consider important for a good leader to possess?
Leadership development programs	• From your own experience, what type of leadership development activities implemented by a company have you found most/least useful and why? • What parts of the leadership development programs were useful/less useful and why?
Goal setting	• What do you need from your closest leader that will help you achieve your goals at work?
Cultural differences in a multinational company	• If you have participated in a leadership development program: In your opinion, how do you think Hydro considers the differences in leadership styles and cultures when guiding you through the program?

Table 3. Overview of the interview guide's themes and corresponding questions

We used Saunders et al.'s (2019, p.458-464) guide to "Appropriate use of different types of questions" to ensure we asked the right type of questions. Prior to us contacting each interviewee, our contact person in the HR department in Hydro sent out an email encouraging the employees to grasp this opportunity and help us with our project, as well as providing them with our written project description (see Appendix C). This described the purpose of our project and what insights we would like to gain. We then sent the informants an email with information about the interview process, what themes we would dive into, examples of some questions, along with a declaration of consent that each interviewee had to sign prior to the interview (see Appendix D). The declaration of consent was in line with the Norwegian Centre for Research (NSD) standards. This ensured the informants about how we secured their anonymity, that we would record the audio for transcribing the interviews, how the information would be stored, and how they could contact us or our supervisor if they had any inquiries or wanted to withdraw from the project. The goal of this whole process was to prepare the informants, start their thought process, and give them the opportunity to prepare some topics and nuances that were important to them. Another benefit of doing this was to ensure the credibility associated with

our study and make the informants aware that this was something that also the top management in Hydro was interested in (Saunders et al., 2019).

4.2.4 Conducting the interviews

Because of the Covid-19 pandemic, we decided early on that we would conduct the interviews online via Teams. This saved both time and money, but it is reasonable to say that we lost some information in the process because of the lack of body language, eye contact, and face-to-face interaction. Semi-structured interviews are particularly prone to interview and respondent bias, something we had to always keep in mind (Saunders et al., 2019). Interview bias occurs when the body language or comments from the interviewer(s) affect the interviewee's answers, while respondent bias occurs when the interviewee does not want to say or reveal certain aspects of the phenomenon researched (Saunders et al., 2019).

To avoid both interview and respondent bias, we briefly described the purpose of the interview and of our research at the very start of the interviews, and how the interview process would proceed such as its approximate length of forty-five minutes. This ensured that all respondents had an equal understanding of the process and what general themes we were interested in discussing. We specifically stipulated that we wanted to hear the respondents' views, opinions, and experiences and that they should not answer what they assumed we wanted to hear. Since a couple of the informants did not speak Norwegian, and because this thesis is written in English, we decided to conduct all the interviews in English. This meant that we did not have to translate everything that was said during the interviews from Norwegian to English. All communication between us and our informants was also written in English, so everyone was prepared that this would be the case. We also informed them about who was conducting the interview and why the other researcher would take notes. The researcher taking notes remained muted on the call so that there would be no added disturbances. Both researchers kept our cameras on so the interviewees could see that we both followed their train of thoughts and were eager to hear more.

We facilitated a calm start with simple and pleasant questions about themselves and their job-experiences before moving on to somewhat more demanding questions. We focused on keeping an informal tone throughout the interviews so that the interviewees would feel safe and experience the interview situation as pleasant and relaxed as possible. We consciously entered

the interview situations with a welcoming tone and eager facial expressions, seeing that they could only hear our voice and see our face during the sessions.

4.3 Transcribing and coding the interviews

Every interview conducted was recorded, stored, and transcribed in line with proper research ethics approved by the NSD (see Appendix E). We made sure to transcribe the interviews as accurately as possible, clearly illustrating in the transcriptions when the interviewees took small breaks or needed time to think. This made it possible for us to better remember the context in which each sentence was said so that we did not misinterpret the transcriptions at a later point. The transcriptions were done soon after completing the interviews to ensure that we had the body language of the interviewee fresh in mind, even though this was less visible over Teams. The researcher taking notes made sure to describe how we experienced the interviewee's mood, their presence, level of involvement, hand movements such as quotation marks, and facial expressions throughout the interviews. This contributed to a better analysis of the interviews by enabling us to remember the context and importance of their answers. After transcribing all ten interviews, we had 85 pages with data as the foundation for our analysis (11-point font, single space).

We then conducted a thematic analysis to conceptualise our non-standardised data material. We began the analysis by categorising the transcriptions according to Silver and Lewins' (2014) three recommended factors: (1) themes from the interview guide, (2) theory concepts, and (3) data findings. As a result, we were able to distinguish nine different themes, each of which was represented by a different colour. Examples of codes are *leading in a matrix organisation, transfer of training, follow-up, networking,* and *support/trust*. To begin, we split the transcriptions in half, giving each researcher their own half to code. After both were finished, we turned to the other half to ensure that we agreed on each other's coding and that everything was adequately coded. It was critical for us to emphasise throughout this process that the codes were not a conclusion, but rather a technique of splitting the data into separate parts that allowed us to dig further into each one. As a result of this, we were able to easily spot linkages, similarities, and differences in the dataset.

After colour-coding the transcriptions, we made an overview of the findings in Excel. We made a table with each interviewee on the x-axis, and each theme used in the color-coding on the y-

axis. Then, we thoroughly went through the transcribed interviews to see who mentioned what, and for each theme, we coloured the boxes green if the respondent had positive notions about it, red if the respondent had negative notions about it, or grey if the respondent did not mention the theme at all. In each box, we also included some key words that were important to the respondent regarding this topic. When this was done, it was much simpler to recognise the linkages between the theory and our interviews, as well as the correlations between level of leadership, seniority, and professional background.

As the final step in our coding, we categorised our findings into four boxes in Excel for each interviewee. The first was *"main points",* in which we expressed what each person considered to be the most significant aspect of a leadership development program, including both positive and negative statements. The second box was labelled *"what was good»* and had key words for what each respondent said was positive about previous programs. The third box was for *"what wasn't good",* where we highlighted what they did not like about the programs. Finally, we added a box for "*what they want more of*", in which we detailed what each respondent felt was lacking, what they wanted more of, and what they would like to experience during future program participation. It was considerably easier for us to structure the analysis after producing this brief overview, and we ended up combining these three last categories as the strengths and weaknesses in the analysis. It also enabled us to see what the informants agreed on, how they sometimes had opposing viewpoints, what will be necessary for Hydro to include in future programs, and how Hydro can best facilitate this. When presenting our findings, we decided to use the "show-and-tell" tactic, where quotes from the interviews are presented alongside the analysis to better answer our research question (Locke & Golden-Biddle, 1997).

4.4 Evaluating the quality of the research design

One of the most significant aspects of research is evaluating the quality of the research design, data gathering procedure, and data analysis (Saunders et al., 2019). The study's validity, including construct validity, internal validity, and external validity, and reliability are used to determine its quality. Validity refers to the appropriateness of the tools, processes, and data used for the study. This includes whether the chosen research design is appropriate for answering the research question and whether the conclusions are valid for the given sample and context (Leung, 2015). When doing research, it is critical that the methodology chosen is well-founded, and that the researchers be aware of the implications of their decisions for the

study's relevance and validity. We employed a non-experimental procedure, and as a result, we have less control and consequently, less reliability (Saunders et al., 2019).

4.4.1 Reliability

Reliability is about consistency. It expresses the likelihood that the same research result will be obtained if other researchers were to repeat the study (Saunders et al., 2019; Gripsrud et al., 2016). This means that for the study to be reliable, random errors that occur frequently must be as small as possible (Gripsrud et al., 2016). In a qualitative study, there are multiple elements that can threaten reliability. Firstly, it is important to keep participant bias in mind, which means that interviewees may strive to give responses that align with what they believe the management or researchers want them to say (Saunders et al., 2019). One disadvantage of recording audio conversations is that it may cause informants to suppress critical information in fear of being held accountable later. However, because we made it clear that their responses would be fully anonymous, this did not appear to be an issue for our informants, as they agreed to this consecutively.

To avoid participation bias, we made sure to establish a sense of trust between us and the informants. We gave the participants enough information about the research in general and the interview method in particular prior to meeting with them. We wrote them an email outlining how we would preserve their anonymity, how we would delete all data after our study, what the data would be used for, and how only the researchers would have access to it (see Appendix C). To gain their trust, we felt it was vital that the information originated from us rather than Hydro's management. Furthermore, during the interviews, we made it a point to present neutral questions so that they felt free to respond to the best of their knowledge.

Another factor to consider was the possibility of inaccuracies due to the time or location of data collection (Saunders et al., 2019). Our study, for example, was entirely reliant on the informants' memories, which could be selective and, in many cases, erroneous. The tendency to emphasise recent events more highly than older ones is a frequent memory bias that may have influenced the informants' responses. Because most informants had not attended a leadership development program in several years and because it is easier to remember very positive or very negative experiences, this could have had an impact on our research. When employing cross-sectional data in the form of interviews, this is regarded as a weakness. We

attempted to mitigate this by reviewing secondary literature and comparing and analysing data from all our informants.

Researcher bias is also something we actively tried to minimise. This type of bias refers to when the researchers' expectations affect how they interpret the information provided by the interviewees and can lead to misinterpretation or selective interpretation of the data (Saunders et al., 2019). As previously noted, audio recordings and verbatim transcriptions of the interviews were taken to reduce researcher bias and the chance of material being lost or omitted during the process. This was crucial for the study's reliability, but it was also a huge benefit because we were able to focus entirely on the person being interviewed. We posed open-ended questions like *"How would you describe the leadership culture at Hydro?"* and *"From your own experience, what type of leadership development activities implemented by a company have you found most/least useful and why?"*. This way the respondents felt enabled to answer as freely as possible, without us giving them any guidelines. We also concentrated on ensuring that we accurately interpreted what was stated by summarising or asking questions like *"So, you're saying..."* or *"So, if we were to describe this, you mean..."*. This helped us clarify issues we might have misunderstood otherwise, which was vital for minimising bias.

Finally, it was critical that both researchers were present and participated in each of the ten interviews. As a result, we were able to talk about what had been said and challenge one another's impressions and interpretations. We took 10 minutes after each interview to discuss and summarise what the respondents had said, which made it easier to compare and analyse the data later. It also helped us figure out what follow-up questions we could ask the next interviewee to ensure we got all the information we needed.

4.4.2 Validity

Validity refers to how sure one can be that the findings from the research represent reality, and that the analysis draws valid conclusions (Saunders et al., 2019; Gripsrud, 2016). It is a measure of the study's legitimacy and gives an indication of how credible or relevant the data collection methods used provided what was intended and no other matters (Saunders et al., 2019; Gripsrud, 2016). In this context, it is relevant to discuss the study's internal and external validity.

Internal validity indicates how certain we can be that the findings and the identified connections in the analysis are in fact genuine (Saunders et al., 2019). The previously mentioned researcher and participant bias are factors that can, therefore, affect the qualitative study's internal validity. The fact that we chose to conduct face-to-face interviews via Teams, rather than, say, electronic surveys, strengthens the internal validity to our qualitative study. This is because we were able to ask follow-up questions, get clarifications, and see how the interviewees reacted to each question. This also made it easier for them to stay focused during the interview (Saunders et al., 2019). This improved the study's conceptual validity, implying that all the topics mentioned were understood by all the participants.

Furthermore, to limit the risk of conceptual confusion, we utilised questions that were clearly phrased and did not include many technical words. Purposive sampling was chosen to improve the study's internal validity since it enhanced the likelihood of receiving useful data because the informants we interviewed had the necessary knowledge, information, and experience to appropriately answer our questions. In addition, we conducted several digital meetings with our contacts in Hydro's HR department to clarify doubts and/or contradictory information from the informants, thereby enhancing the study's internal validity.

External validity, also known as generalisability, considers whether the findings of a study can be extrapolated to the rest of the population (Saunders et al., 2019). In a case study, it is impossible to generate statistically generalisable findings since it is based on a small non-probability sample (Yin, 2013). This is because the sample will not be representative of the entire population. Nonetheless, a case study is not designed to achieve statistical generalisation. This type of research should instead help to explore a phenomenon, which then can serve as a foundation for more explanatory or descriptive research. In contrast, it is possible to obtain so-called analytical generalisation in a case study, which refers to the extent to which the findings can be utilised as a reference for other, similar situations (Yin, 2013). This indicates that if we are successful in generating good explanations, descriptions, conceptions, and interpretations, the findings are likely to be applicable to situations other than the case at hand, but this cannot be proven. As a result, our findings can be applied to other similar firms, like those structured as multinational matrix organisations, who utilise or plan to use leadership development programs for their employees. However, it is up to the companies to determine if the study should be used as counsel in their situation.

4.5 Ethical assessments

Research ethics is the gold standard for excellent research conduct, and it must be considered at all phases of the research process (Saunders et al., 2019; Cooper et al., 2006). As a result, ethics must be considered as we develop and clarify our research topic, plan the study, and access, collect, process, and store data as researchers. There could also be ethical issues with how we processed the data or presented our findings.

In our study, the most essential issue in terms of research ethics is the preservation and acquisition of data material, particularly regarding the anonymity of the informants. Only the two researchers know who we ended up interviewing, and we transcribed and analysed the data using codes to safeguard their identities. We divided the informants into three groups based on their hierarchical level of leadership and assigned each leader a unique number ranging from 1 to 10 to make it easier to refer to them. For more details, see table 2. On all written material, these numbers are utilised instead of names. Prior to collecting the data, we received a list with names of potential candidates for the interviews from our contact person in Hydro's HR department. This means that this person knows who we contacted but not who agreed to be interviewed, or which number each informant has been assigned. This shows that we have made sure that no one, except the researchers and the respondents themselves, can recognise quotes or the number linked to the statements.

To further ensure the anonymity of the respondents, we use terms as "leader", "respondent", "informant", and "leader X" when referring to something an informant has said or opinionated. We also decided, from an ethical perspective, that the interviewees had the option to withdraw from the study at any point, both during the interview and later in the process. This was offered in case the respondents would regret something they said. This was clearly stated in the information letter and the declaration of consent generated in accordance with NSD's guidelines.

5.0 Analyses of the interviews

As a result of the ten interviews conducted in combination with our secondary data, several interesting insights came to light. The following section presents the most important findings after the coding of the interviews. The insights will be presented here in accordance with the research question: *How do leaders in Hydro Aluminium Metal experience strengths and*

weaknesses of leadership development programs within the company? The word cloud below highlights some of the key terms that arose in the data collection process. The larger the word is in the cloud, the more frequently it was mentioned during the interviews. For example, networking was mentioned the most times in total by all the interviewees, so it is the biggest in the word cloud. As such, we focus on these terms in our analysis.

Figure 3. Word cloud of most used terms in the data collection

In the analysis, we first present the contextual background relevant for the leadership development programs in the company. Then we present the strengths of the leadership development programs as experienced by the interviewees, followed by the weaknesses of the programs. Incorporated into this last section, we interlink what the respondents think could be beneficial to include in the programs to mitigate these weaknesses.

5.1 Context for leadership development programs in Hydro

Although describing the current leadership culture in Norsk Hydro and Aluminium Metal formed a large part of the beginning of the interviews, these insights were highlighted to introduce the report in chapter 2, and they were used as a springboard for further discussion on leadership development during the interviews. Hence, these insights have already been mentioned above and will not be repeated here. We shall keep in mind that Norsk Hydro was

described as having a consensus-driven leadership culture, slow decision making, and that the complexity of the matrix organisation poses challenges for the leaders in the company. Before we dive deeper into the leadership development programs, a brief presentation of the insights into Hydro as a matrix organisation and the challenges of a multinational organisation with cultural differences follows below. We do this because we recognise that to develop as a leader it is critical to be able to overcome challenges, and as a starting point for understanding what skills leaders should develop during a leadership development program, these challenges need to be raised. We are not attempting to analyse the research question in this first part but provide important contextual circumstances that provide a backdrop for the analysis.

5.1.1 Cultural differences affecting leadership

Although a couple of leaders claimed there was not a joint leadership culture across subsidiaries in Norsk Hydro, a few characteristics were prevalent across national boundaries. Emphasised by several interviewees, these characteristics stem from Norsk Hydro's core values and the five AMBS principles. Principle 5, visible leadership, was mentioned explicitly by a couple of respondents in the interviews. One respondent on level 3 of the organisation described that visible leadership to them is not about micromanaging but about people seeing them. The respondent also raised this as a challenge for a leader.

> *"So that is a challenge for me to be visible in the way that people can see me, that I know the people, that I can know a little bit about everyone, you know, see what they do well, what they don't do well, but trying also to like not taking to deciding you need to be a part of every little detail because then I cannot focus on this long-term activities that really are more my responsibilities as a leader and I try to be visible… that you can actually see me sometimes"*
>
> Leader 10

Other interviewees highlighted how visible leadership transpired through having "open door policies" and always being open for a dialogue. Leader 4 described visible leadership as "*you are out in the organisation, you are talking to people, you lead by example, you walk, observe, communicate with your people and with others in the organisation*". It can be noted that many of the interviewees highlighted this in how they were supported by their own leader, not so much how they strived to be a visible leader themselves. Nevertheless, striking a balance between being a visible leader and not micromanaging versus expanding your responsibility across limited time and resources was a key challenge raised.

What we can draw from the interviews is that there is an overarching leadership culture in Norsk Hydro and Aluminium Metal, that trickles down from top management at the company and is influenced by the Norwegian culture. However, it may differ according to regional or national cultural differences. Leader 3 described this concept in the following manner:

> *"In Norway we are more used to having like a flat organisation where maybe the roles are not described in details and people used to take responsibility and act within their role descriptions while when I compare this to Brazil, people were used to having instructions. In Brazil it was much more a masculine culture like in all these, sort of, south American countries, and people were not acting unless they were told to do so. So, you [...] have to also follow up to ensure that the job was properly done but in the culture we have here, it's more we work with strategies, and we deploy the strategies and then we, at least where I'm working, we in a way define the role and the dedication of all the peoples and then we have, of course, a follow up but not at the same frequency as in many other cultures. So, I think it's more like a guidance for when you act as a leader"*
>
> <div align="right">Leader 3</div>

Of the four leaders that mentioned differences across national borders, all but one, mentioned Brazil as an example for the cultural difference and that the influence of cultural differences on leadership style was a palpable challenge as a leader. Leader 3 described that as a leader in Norway, your responsibility is to foster people that can interact together in a team of different competencies. On the contrary, as a leader in Brazil, your role is more authoritarian and traditional such as delegating tasks, and subordinates look up to their leader for detailed instructions. These differences can transcend into problems for a leader and may require development in managing diverse cultural backgrounds.

5.1.2 Challenges as a leader in the matrix organisation

An important characteristic of the Aluminium Metal business division is its matrix-like structure, which is a crucial component of being a leader in Hydro. This is important for leadership development programs as they should contain information and learnings that can help leaders manage challenges in the organisation they operate in. Although how Hydro's organisational chart is structured does not exactly align with how a matrix organisation is described in the literature, the complicated web of lines of authority and responsibility are reminiscent of the structure and thus, describing Hydro as a matrix organisation is relevant. Leader 2 clarifies that "*we have a complex organisation, you cannot really read it on a chart, you have to get to know it, how it works in order to get things done in the company*". Eight out of ten respondents pinpointed Hydro as a matrix organisation and the subsequent implications

for its leaders. The implications mentioned align with topics like communication, target setting, strategic direction, and alignment.

Firstly, a lack of direct authority lines makes motivation and coordination difficult in this structure. Leader 3 described in detail the challenges that come with leading in a matrix organisation and the support necessary for these leaders to deliver good results.

> *"We are working, I would say to a great extent, with a matrix organisation. And maybe this is for me, maybe this is even more challenging than being a kind of line manager. So, if you are a team leader working with the matrix, [...] you cannot instruct people and you cannot in a way tell anybody that this is the target and this is what we have to deliver. You have to in a way to convince, you have to sell the message and you have to convince them to come on board and doing their part."*
>
> Leader 3

Leader 3 explained that because there is a lack of direct authority lines, leaders often cannot instruct their team to do certain things but rather must motivate and convince the team to reach a target. Additionally, many employees and teams need to be coordinated to achieve the targets set. Leader 3 continued:

> *"I see it with my team where I have category managers and they work with a lot of engineers in operation. They work with their research and development. They work with their suppliers. And they have to make this work where there are many different roles, have their piece in making this a success. So, operating and selling the messaging and convincing people, it's not the easiest task. [...] We don't only have line managers, but we have people with maybe a more difficult role. So, we have to support them to deliver good results here"*
>
> Leader 3

Leader 3 points to coordination difficulties in a matrix organisation and especially in aligning under a common target. Leader 10 echoes this in the following quote.

> *"[We] have strategies that are in line with each other so it's a little bit challenging. I know for the other unit managers also because, of course, you also have this line that you report to, and that is the plant, but then you also need to be in line with this other organisational group. So, your goals for the next year, or the next five years that you are thinking about should be in line with both."*
>
> Leader 10

Secondly, alignment and coordination challenges prevalent in a matrix structure reinforces the importance of goal setting. Goal setting was continuously highlighted by all respondents in the interviews. The importance of targets was most likely emphasised by our question "*How much*

freedom do you have to set goals for your department and/or team?". Regardless of the question, most of the leaders chose to highlight goals and goal setting throughout the interviews. The leaders on level 1 spoke about targets in terms of strategy and strategic direction, whereas leaders on level 2 and 3 also mentioned overarching strategy but were more concerned with targets such as Key Performance Indicators. Leader 5, who is on level 2, explained that a clear strategy was important for a leader to motivate their organisation towards that strategy.

> *"I am very glad that Hydro has a very clear strategy now because then it's easier also for the leader to be clear. So, having a good and motivated strategy and a very clear strategy with clear targets, then it's easier for the leader also to motivate the organisation and to be a very clear leader."*
>
> Leader 5

The leader explained further that they feel there is a good system around setting clear targets for each individual, making it easier for both the leader but also different people to follow this up during the year. Since the leaders communicate the strategy to the organisation at different levels, it is easier for them when the company as a whole has a clear strategy. Additionally, when there is a cohesive system for setting targets that adhere to the overall strategy, leaders can better motivate their people.

The emphasis on targets comes, in part, from the AMBS principle 4, dedicated teams, where common, visible targets is a core component. The relevance to the matrix organisation is that target-setting is important when lines of authority and responsibility are blurred. When targets were mentioned in relation to the matrix organisation or complexity of the organisation, the leaders referred to the importance of communication and having a clear strategy so that everyone in the organisation was aligned under the same goal, especially when many different processes and roles are present.

Leader 5 also pinpointed that a lot of processes occur throughout the year that involve a lot of people. The leader explained that this can be *"overwhelming for some of the leaders coming into that organisation"* (Leader 5). As such, developing skills to handle this task can be important to include in the leadership development programs. In total, six leaders specifically highlighted coordination challenges with the matrix organisation. So, it is apparent that coordination to reach targets is a vital component of working in this structure. Leader 6 also described this as an important aspect of their job.

"I'm trying to coordinate across in order to utilise the total competence in our organisation, and also based on that and the technology department, to try to analysis the different plants, to try to understand and set the strategic targets across"

<div align="right">Leader 6</div>

Thirdly, leader 2 emphasised the importance of aligning under one strategy or target for Hydro, whether that is within a team or as an organisation. *"We used to have a joke in Hydro that the most important process in Hydro is the alignment process"* (Leader 2). The fact that alignment is so engrained in the Hydro way of working signals that leadership development programs can be a good way of facilitating this. The leader also reflected that always being aligned has its consequences. "*It takes a long time to make decisions when you have to involve a lot of people*" (Leader 2). This echoes how others described slow decision-making as a characteristic of the leadership culture at Hydro. As a result, this suggests that it is not only consensus-driven decision-making that slows decisions but also how the matrix structure makes alignment challenging. Nevertheless, leader 2 justified the alignment process by saying that,

"[…] through such an alignment process, you also have more buying into the strategy and direction. So that is sort of a strong side so then when we are finally ready to execute then I think a lot more people are aligned and on board with what we are trying to achieve"

<div align="right">Leader 2</div>

The necessity of target-setting and aligning under goals can be directly translated to the leadership development programs. Namely, leaders can gain more from the leadership development programs if targets are set for the individual leader and the collective to achieve during and after the program.

Fourthly, coordination and the alignment process within the matrix structure cannot be brought forward without going deeper into what that means for the leaders in the organisation, namely for communication. Two leaders specifically chose to focus on communication as a key factor when leading in the matrix organisation. Leader 1 explained that leaders need to have excellent communication skills because *"there are so many arenas and so many channels […] where they need to be visible"*. This also links to the AMBS principle of visible leadership. Developing effective communication skills is therefore useful for developing the individual leader and could be included in the leadership development programs.

Above we detailed the contextual factors necessary to understand for leadership development programs in this company. Specifically, we analysed what facets are important for a leader in Hydro to understand and overcome as they develop as a leader: managing cultural differences and coordination and alignment challenges perpetuated by leading in a matrix organisation.

5.2 Strengths of Hydro Leadership Programs

As detailed in the introduction, leadership development programs have been a vital component of developing Hydro's leaders and its leadership capacity throughout the years. We will now present the main insights of our data collection, namely what the respondents found were strengths and weaknesses of the leadership development programs, including what components there should be a stronger focus on. Throughout the following section we distinguish between what type of program the element falls under; intra- or inter-personal development, or both. By analysing these insights, we establish a sound basis for coordinating this with the theory in the discussion.

Overall, every interviewee characterised at least some aspects of leadership development programs, either within Hydro or outside the firm, as strengths. In general, matters pertaining to people was highlighted by all interviewees as incredibly important aspects of the programs. These matters included building networks, learning from other people's experiences, and aligning people under one strategy. Firstly, leadership development programs were found to have a significant role for network-building in the organisation. This strength can be categorised as an interpersonal development process and will be presented first. Then, several strengths regarding content, which mostly pertains to intrapersonal development, will be presented.

5.2.1 Network building and the facilitation of alignment

Perhaps most importantly, networking was brought forward as a key benefit of the programs as it develops interpersonal skills. Several aspects of networking were highlighted including facilitating networks and growing ones' network through participation in the program. Apart from Leader 5 and Leader 7, all leaders interviewed explicitly mentioned network-building as a key strength that came from leadership development programs. Although the word was not explicitly stated by the aforementioned two leaders, Leader 5 explained that learning people skills is one of the most important outcomes of leadership development programs.

Additionally, Leader 7 explained that meeting people from around the world and gaining new insights from them was a useful component. Thus, the concept of networking is implicitly treated as a major benefit of the programs for leadership development by all respondents in the interview process.

Although all the respondents agreed that networking is vital, the leaders chose to highlight different aspects of networking. In general, Leader 1 explained that the "*Norwegian leadership culture is [...] very much network driven*". This could explain why this concept is so prominent in the data collection, namely because it is engrained in the culture of the people in Hydro. Leader 4 found networking through leadership development programs particularly good throughout ones' journey as a leader in Hydro. To begin, Hydro's new employees attend the Hydro Fundamentals, where they gain their first networks in the company. Several respondents indicated that they still had connections from this initial course. New leaders in Hydro can join the Leadership Fundamentals where the leaders "*gain a network and get kind of [to know] the infrastructure of the support for your leadership journey in the company*" (Leader 4). This respondent also explained that in daily work life, the networks gained from these programs are particularly useful, for example, by providing support for challenges faced as a leader. As such, by meeting new people through the programs, leaders can draw on others' experiences to solve challenges throughout their leadership career.

> "*If I have a specific challenge related to leadership then either have the networks from the previous program so I have peers and colleagues I can discuss specific dilemmas with, or I go to the HR business partner, or I go to somewhere else in the vicinity of the people organisation where, depending on the topic, I can seek assistance. So, if I have a challenge, I always find [...] a person I can discuss challenges and dilemmas with.*"
>
> Leader 4

Furthermore, Leader 9 explained that beyond the actual learnings of the leadership development program, a large part of attending one is the opportunity to build a network and "*going to places you've never been to*". The respondent also pointed to why physical programs are valid, namely spending time with people from other units, asking questions and learning from each other. On a later occasion, this leader explained that "*[human interaction] makes it more special, more memorable, maybe it sticks more*". This quote suggests that meeting new people encourages retention of the learnings in the program by making the program more noteworthy.

Leader 6 was particularly fond of highlighting networks throughout the interview. This respondent went on to illuminate that many internal programs at Hydro, not just the leadership development programs, are about network building. In light of this, Leader 6 emphasised that the programs allow for understanding your colleagues better and that this provides a greater platform for leadership.

> *"You need this small talk. [...] We learned all the participants, a lot, to know about family, about interests. I think this is also an important part of it. And then you can understand the result of the personality and yeah… it's the total mix"*
>
> Leader 6

As such, the leadership development programs, as an example, provide a pathway to get to know your colleagues on a deeper level beyond work tasks. Although an interesting point, Leader 6 was the only respondent to mention this particular benefit explicitly, whereas a few leaders mentioned this implicitly. Leader 2 attributed the importance of network to people becoming aligned and being supported throughout the organisation. The leader said that *"it's important to be able to connect with and work with a lot of different people at different levels. Again because of the alignment and the importance of getting support from a lot of different stakeholders"* (Leader 2). Leader 5 also attributed the importance of networks to aligning people. They explained that the leadership development programs allow people at different levels in the organisation to come together and that this facilitates alignment.

To conclude, it was notable that all the leaders attributed network-building as a strength for leadership development in leadership development programs. Facilitating support when facing challenges and aligning under the same goals were some of the beneficial outcomes of networks established at these programs.

5.2.2 Variety of learning methods, putting learnings into context and strategic content

The following section delineates some strengths in terms of content that encourages leader development (intrapersonal). Several respondents mentioned that it was useful when leadership development programs provided them with specific tools and frameworks that they could use on the job after completing the program. This was particularly relevant for the leaders at level 2 and 3 in the organisation. For example, Leader 8 mentioned the SPI-tool as a game-changer when giving feedback. SPI is short for Situation-Behaviour-Impact and resembles the three

things to remember when providing people with feedback: you capture and clarify the situation, describe the behaviour observed, and explain what impact this behaviour had on you.

> *"When we get some tools, to build a toolbox, that's important for me as a leader. So having for instance the SPI and really [...] utilise it. That can be a toolbox to communicate, it can be a toolbox to accelerate to the next level, or it can be a toolbox on how to be a better leader in general"*
>
> Leader 8

Leader 4 mentioned that finding answers to questions like *"how do I manage and how do I cope with challenging employees?"* was tricky at first but that a leadership development program offered a 'toolbox' to use in these situations. These mental frameworks are something that several leaders wanted more of during the programs. This leader proposed that topics such as resilience and persuasion were important to discuss in the program. Specific tools are easier to bring back to daily work, implement on the job and transfer to other employees in the team. Leader 1 mentioned that *"I came back with something that my peers hadn't seen, that they hadn't been exposed to, so I think that was very good"*. This points to the fact that the tools the attendees bring back might lay the foundation for how their peers conduct leadership in the future as they look to their own leaders for guidance and inspiration.

Moreover, there were different views regarding the use of psychoanalytical tests as part of the program. Leader 1 explained that using a psychoanalytical approach can quickly become too personal and uncomfortable whereas Leader 6 enjoyed this aspect of the programs.

> *"I just haven't found very interesting [...]has been typically lease-program, which has been almost like a psychoanalytical approach on things where they go very deep on personal stuff, you know, very Freudian kind of...almost approach, which we have used a lot in our company which I personally find not very comfortable, and they kind of go over a certain threshold for what I feel is something I would like to spend time on in the company. I mean, it becomes extremely personal"*
>
> Leader 1

> *"Psychologists discussing with us, trying to analyse what we saw in the test and how we look at ourselves as a leader and that was very interesting and it's giving me a lot, and I have also used this in my team, and we see that now I feel I have a very good team."*
>
> Leader 6

Leader 6 discussed several components that they enjoyed about this aspect: the external psychologist providing an outside perspective, taking the same test over time, reflecting on

progression, and taking these learnings back to the team to discuss. However, the differing opinion on the psychoanalytical method suggests that what a leader may find useful in a program depends on the individuals' sentiment. For example, there was only one leader that described a program in Hydro where leaders were building their own personal brands as very useful. *"The one where we basically were building our brand, our own person brand, what do we care about, what was our message, what were we… our leadership style, I really enjoyed that"* (Leader 9). The respondent pinpointed the people's aspect again by describing how gaining feedback from new people met in the programs was enjoyable.

> *"And I really enjoyed the…the… we had like a feedback, more like a 360°. These people were pretty much strangers for the most part. We hung out, we would drink beer together, you know, but we only see them for like three weeks on the whole entire program. And then to get some of their feedback, whether it was good or bad, I think it was good to help you kind of reflect and grow yourself"*
>
> Leader 9

Thus, we can see that concrete tools are specifically useful to learn during a leadership development program. In addition, the presenters and facilitators were mentioned continuously as good additions to a program. Leader 10 summarised this in the following way.

> *"When it comes to leadership programs, I've been to this one called New Leaders in Hydro, and I thought that one was very good because it had really good facilitators that shared a lot of their own experience and they gave us some really detailed, concrete tools to use. They challenged us in the way that we needed to share a lot of things and think about a lot of things"*
>
> Leader 10

Listening and learning from people who have gone through similar experiences are good ways to gain perspectives on different situations. Simultaneously being challenged to share seemed to be important according to a few leaders. For example, Leader 1 proposed that the leadership development programs were good avenues for discussing and challenging strategies. Accordingly, putting things into context through various mechanisms like external facilitators was deemed an important facet of leadership development programs. Such mechanisms included bringing in an external coach and gaining feedback from external parties to gain a better outside-in perspective and to better reflect on one's own behaviour and leadership style. This was relevant for leaders at lower and higher levels in the organisation. According to Leader 4, discussing with an external party, especially a psychologist, provided individual feedback and the ability to discuss specific dilemmas in daily leadership.

"Together with that group and that project, we had a coach, an external coach, which was participating in our group sessions where we were challenged, where we were supported, where we were given feedback on behaviour and a different, other, more psychological aspects, and that I thought was very interesting."

<div align="right">Leader 4</div>

Leader 4 also explained that when the programs were run by external facilitators and not necessarily Hydro, it made them even more noteworthy.

"We also got material to read from them and I think that was also a very good structure. [...] we then had external professionals who came for different topics, which was also very refreshing and gave external perspective into our ports, which, for me, always gives even more energy than if internal leaders come and talk about strategy and things like that"

<div align="right">Leader 4</div>

This suggests that good facilitators and presenters are important for making the programs remarkable, regardless of the topic. Because external facilitators can often bring new insights, from outside the firm, they are even more interesting to the attendees. If the lectures and tools are presented by external facilitators, the leaders signalled that they may be more inclined to find the learnings useful, bring them back to their peers and implement them. This hints to the transfer of training concept that will be examined further in the discussion.

Continuously, Leader 1 claimed that *"outside-in is very interesting"* and brought this back to the concept of networks and how the usefulness of topics will be different according to the level the leader is in in the organisation. *"It's important for [higher level leaders'] development to develop networks in the company, maybe externally, it's important for them to get more outside-in perspectives from other types of companies or industries"* (Leader 1). On the contrary, Leader 1 also explained that understanding the context is particularly important and useful for developing leaders at the lower levels. This also hints to the fact that understanding the wider context can be useful for interpersonal development as well as intrapersonal development.

"On the lower level, in lack of a better word, I would say that then to do it in the context is even more important because then you see such… to justify it… because you know it's across the globe and also because I think there, it makes even more sense to do it for the whole team and use as a way to develop the whole organisation rather than the individual"

<div align="right">Leader 1</div>

As the final part of the strengths involved in intrapersonal development activities in the programs, we compile what the interviewees thought about the inclusion of strategic content. There were mixed responses when it came to including strategy as part of the leadership development programs. Like Leader 4 previously described, they preferred external professors as opposed to internal leaders talking about strategy. This leader also explained that strategy may need to be included in the program but not as a pure factual presentation but as more of a discussion to enable attendees to challenge the strategy.

The consensus with the leaders on hierarchical level 1 was that strategy needed to be included to some extent in the programs. A couple of leaders on the other levels also mentioned strategy as important. Leader 7 was confident that strategy needed to be included in the programs, stating that *"strategy from top to bottom in the organisation and how we all work together to achieve strategy, […] to have that link clear is very important that, and I think that needs to be visualised in a leadership program"*. Furthermore, Leader 2 suggested that a general leadership training is most useful when the company has a long-standing history. The respondent specified that providing a broad training can be important to understand the strategy, history, and context in which the leaders find themselves in.

> *"Some general leadership training where… where sort of people get to understand the strategy, the setting, the history of Hydro, I think is important because, you know, we have a long history, more than a hundred years, and it still sort of plays a role in how Hydro is organised and the thinking of the company. And that, you know, in order to be an effective leader in Hydro, you need to understand this backdrop"*
>
> Leader 2

On the contrary, another leader at hierarchical level 1 explained that a leadership development program can be good for narrowing in on a specific scope. As opposed to a broad scope, a narrow scope is more important. *"I would say that the program should also be…very dedicated to some specific tasks, not being too generic, not trying to have all interesting topics on board, because then I think the final concept will not be good enough"* (Leader 3). The lack of commonality in the leaders' opinions on the use of strategy and level of breadth in the programs indicate that the strengths of a program may be perceived differently by different leaders, potentially influenced by their hierarchical level and/or personal sentiment.

To conclude, there was a myriad of aspects in leadership development programs that the leaders in Hydro identified as strengths. As the leaders reflected on their good experiences, several

components came to light. Firstly, there was a consensus that leadership development programs provide a platform or forum for building ones' network. The benefits of this include being able to turn to the people in your network when you face challenges. The interviewees felt that getting to know people on a deeper level and building one's network through the programs had the added benefit of facilitating alignment within the company. Aside from the benefits of network building, the leadership development programs were considered to yield positive experiences when they included a mix of learning methods and provided tools and frameworks, creating a toolbox that can be useful in leadership. In particular, when external parties were involved in the programs, many of the leaders found it more inspiring and gained more knowledge from an outside-in perspective that may be lacking when programs exist purely within a company silo. Lastly, strategic content within the programs was a contentious topic. In general, there was an understanding that a leadership development program can function as a good platform for deploying strategy internally, but that this is most useful when it allows for discussion around it.

5.3 Weaknesses and improvements of the Hydro Leadership Programs

The interviewees also referred to weaknesses and areas of improvement of the current Hydro leadership programs. Even though there were a lot of similarities in their answers, we also found disagreements on the importance of some factors. Leader 7 explained that *"[…] we tend to forget what we don't like. Otherwise, you would only have one child"*. This highlights that it was sometimes more difficult to remember the things they did not enjoy, but rather focusing on the things they found to be strengths of the programs. In addition, there were some components that were currently lacking, which the leaders would like more of. We first focus on the weaknesses of the *content* of the current programs and then move on to present aspects surrounding the *role* of leadership development programs in the organisation that could be improved.

5.3.1 Strategic and theoretical content and their delivery

When planning a leadership development program, it can be hard to find a balance between lecturing, having group discussions, doing different exercises, and having enough time to reflect. There is often a myriad of material to cover within limited timeframe. Keeping in mind that Hydro's leadership programs often gather people from around the world, in different

positions, and with different backgrounds, it is undoubtedly difficult to create a program that is always interesting and challenging for everyone.

"You know it's of course a little bit challenging to make a program relevant for a wider audience of participants. So, for example, if I'm sitting with leaders across Hydro in this program and then we get a [PowerPoint presentation on our strategy], then there will always be something which I already know. So, if the CEO talks about certain financial topics, that would be […] more relevant for others than for me. But I think that's unavoidable"

Leader 4

The interviews made it clear that having too many PowerPoint presentations was often seen as boring and unnecessary, especially if its focus was Hydro's strategy. As mentioned in the prior section, the use of strategic content was a debatable issue. Strategic objectives and targets will always be of importance to both the management team and the employees in a business. However, spending time and resources presenting Hydro's strategy on a leadership development program was mentioned to be a waste of time and unnecessary, as they should be expected to know this before starting the program.

"A senior executive from Hydro coming in and telling us about the Hydro strategy – that I have never found very useful because I can read the presentation somewhere else. […] They come in and they talk about the board's strategy and, you know, we kind of have a "bonfire-discussion" afterward. The bonfire-discussion could be okay, but for me that kind of internal view and internal deployment of strategy and using the leadership program to do that the way this has been done…at least it has been a bit, I would say, uninspiring because you just sit there listening to strategy"

Leader 1

This shows that it might be preferable to spend time preparing for the program by reading information given by senior executives, and thereby using the program to discuss and challenge topics and listen to insights from external parties. This was also pointed out by Leader 9, saying that *"the more teamwork you did, the more hands-on, I think is better, versus just somebody just reading something off to me, or give me some PowerPoints".* The leader continued saying that it is more important that you remember the program as a fun experience, so it easily sticks to your memory, highlighting that it is "*important to make them more fun versus just somebody coming in here from somewhere and giving us a class or whatever"* (Leader 9). Leader 4 also mentioned that a lot of the information being presented at these programs are already available and are easy to access through Hydro's intranet. Accordingly, if people were a bit more proactive in advance of the programs, this would be unnecessary to repeat.

"Less interesting and less relevant is maybe in such a program that the pure contextual part on things like "this is the value chain, this is a certain factual content" from the company which you already know from your daily work or could get through sessions like Capital Markets Day, or if you listen to the quarterly result presentation. So, things that are already available through other fora, and information in the company where people, if they are a little bit proactive, could seek and get that information through other channels in the company".

Leader 4

In reference to this, Leader 2 explained that if Hydro's strategy was to be included as content in the programs, it would be most useful for leaders from other backgrounds. It is important to gain some background information, *"[...] especially if you're non-Norwegian and don't understand the Norwegian setting"* (Leader 2). How Hydro is organised and led is a result of its history and it is therefore relevant for all leaders to bear in mind when making decisions or having discussions with other employees.

Even though strategy and strategic objectives are clearly important for the company and its employees, Leader 1 mentioned that there could be better places and times to present it, although it is both easy and convenient to share important information internally during these programs. This does not mean it is necessarily relevant for the program itself or for the leaders in attendance. Also, we observed that four out of ten leaders mentioned the use of unnecessary PowerPoints and too big of a focus on strategy. These four were mainly leaders on level 1. The other six informants did not mention this explicitly. Exactly why the leaders on level 1 highlighted this in their interviews is hard to say but it could be that they recently went through some of the same programs, and that strategy was one of the main focuses there.

Furthermore, sometimes respondents chose to highlight things they did not like or understand during the programs that no one else decided to mention. Although they were alone in the issues they raised, it is still valuable to present these perspectives from the leaders. Some things the leaders even disagreed on, making it clear that different people find different things interesting or relevant. For example, group work in the form of "role play" was mentioned to be both very interesting and very unnecessary. This points to the fact that it is hard to make a program where all the participants enjoy all the parts, especially in a diverse company like Hydro. Leader 7 described role play as *"[...] extremely efficient, I think, to bring forward a message and the importance of communication".* In contrast, Leader 6 did not like the use of this method.

"What I didn't like at all that time was, and I didn't catch it at all, was [when] we had this role play, and that kind of... "phew" [went straight over the leader's head]. I didn't understand why at all, but that's just my understanding. I just didn't catch it".

<div align="right">Leader 6</div>

Another component that was brought up by some of the leaders was the relevance and repetition of the learnings from the programs. The content of the programs should be something new for the participants to allow for growth as leaders and to build a bigger toolbox. As Leader 7 said, *"there has been programs that I have thought that this is not new information, this we have been through so many times before"*. Even though repetition is sometimes fruitful and necessary, it is important to avoid redundancy with the same programs, and instead evolve and innovate them according to the participants' history and background. As already discussed, this is a hard task because there will always be someone who has previously been through some of the content. Leader 9 emphasised this by saying that *"You need to think of the different opinions, and so there is 50 different guys, and there's 50 different opinions and that you know, maybe you can find some sort of common themes"*, highlighting that *"[this] will be a difficult challenge for [you] to figure out"*.

Some respondents highlighted different aspects of the leadership development in terms of content that was currently lacking or that they would like to see more of. Yet, when it came to suggesting specific content that should be included in the programs, the respondents rarely mentioned the same thing. It is unclear why this is, but it is important to consider the various aspects that these respondents mentioned. Two suggestions were made by two different respondents, listed below. Leader 4 suggested that learnings about how to manage stress and challenging situations and building personal resilience could be valuable.

"How do I manage challenging employees? How do I manage and how do I cope with challenging employees? And that was one module I remember from, that was not only covered once, for example, that could be one topic. Another topic, which I think is maybe even more relevant on a generic basis, is personal resilience. How do I cope with stress? [...] How do you have a mental framework for these situations, which makes you resilient to cope with such situations, because you will experience them on a regular basis."

<div align="right">Leader 4</div>

Leaders are bound to encounter difficult scenarios with many corresponding stakeholders. It can be a challenge for leaders to manage these scenarios and the people involved. Therefore, it is a valuable contribution to include content that strengthens one's personal resilience to face these challenges as they arise throughout one's career. In addition, Leader 4 was of the opinion

that when designing the programs, they should focus more on including the non-technical components as these tend to be more appealing to the attendees.

> *"I believe we should spend more effort in designing these non-technical issues because they are not complex. They are not dilemmas but more focus on the non-technical personal aspect of this. That is much more appealing to people, and if you get people on this side and get them on board on that personal mental side than the technical aspects executing on this strategy, that is in a way something they will then just be able to do, and be motivated to do*"
>
> Leader 4

Focusing on a non-technical component like building personal resilience or how to overcome leadership challenges can be very motivating to a leader, probably more than just focusing on technical skills. The leader postulated further that if happiness at work and resilience are considered as important components by others too then Hydro should spend more time on this. Leader 5 also came with a suggestion that, if possible, would be very valuable to this leader. This respondent wished they could be filmed during meetings, so that they could see how they performed. The respondent attributed this unusual suggestion to sometimes questioning oneself and how they perform in meetings.

> *"What I question myself, lots of times, is how do I actually perform in meetings which I'm leading or joining. Sometimes I would like also to have a video to see how was this actually performed? But you know…I don't know if I would dare to watch it. But maybe…actually that could be actual valuable in a training program. It could maybe be interesting to analyse the performance together with a coach to go through"*
>
> Leader 5

Although it is difficult to draw any parallels between the proposals made by leaders 4 and 5, one may argue that both are concerned with matters pertaining to reflecting on one's own actions and behaviour and understanding oneself. In this way, you are better equipped as a leader to meet challenging situations. Lastly, Leader 8 reiterated what had previously been said by interviewees who enjoyed a mix of learning methods to facilitate engagement in the content. In reference to what type of learning methods the leader wanted more of, Leader 8 explained that *"I would like to have a little bit of everything"*. The respondent repeated that using only one type of learning method, especially presentations, runs the risk of losing the audience.

5.3.2 Reliance on internal resources hampers contextualisation and outside perspectives

Overreliance on internal resources was seen as a weakness of the current programs. The use of external versus internal resources was mentioned by several of the leaders we interviewed, all

of them highlighting that Hydro is relying too much on internal resources during their programs. Even though Hydro has a lot of people with a lot of experience within the fields of the programs, the leaders said that it is often more interesting to listen to new and unfamiliar people with exciting and fascinating stories rather than someone from the HR department.

> *"I think that Hydro is good [at using] a lot of development programs, but I feel that they are using too much internal resources. [...] Taking in different people from different companies talking about their experiences, that I think is very valuable because I found it very interesting"*
>
> Leader 6

Several other leaders also stated that they wanted more external input during the programs. Listening to stories from leaders in other companies, how they handle their work-life, both failures and success stories, as well as getting the external view on problems they might face and discussions they might have, was mentioned to be of high interest by the interviewees. Some leaders also mentioned that using too much internal resources can have a negative impact on the program because the participants, and Hydro in general, can become too "consensus-driven". If external input where people look from the outside-in is never shared, it may be hard to move the company forward due to lack of new ideas and ways of solving their problems. Leader 2 emphasised the importance of this, stating that "*[...] perspectives of the outside world is also an important part of the leadership development"*. The leader explained that it is important to look outside the company for new learnings and not just focus on what works for the moment but look for inspiration elsewhere.

> *"We are a big company, and we have internal customers as well, and it's a significant risk that we become too introvert and only look at Hydro as also some sort of part of the leadership journey or development, should also be, you know, understanding what's going on outside and how other companies are working to make sure that we won't sort of only look at ourselves inside the company"*
>
> Leader 2

As previously discussed, the internal focus often leads to too many presentations of the company's strategy. Four of the ten leaders mentioned that they found the outside-in perspective to be more useful and much more interesting. The remaining six leaders did not mention this explicitly but neither said anything about the internal focus or inside-out perspective to be better than the other. This leads us to believe that a more external focus is to be preferred for future programs.

One topic that was continuously raised from various angles was contextualisation. By this, we consider how the learnings and programs are taught in context of daily work and in the context of Hydro as a company in a global industry. Leader 7 explained the current situation for employees in Hydro by saying that *"we are in our own bubble and focused on improving what we are dealing with. But it's really important to see a bigger picture. [...] That is a theme that could be brought more forward in the leadership program"*. Leader 1 would like several aspects of leadership development programs to be more contextualised.

> *"Sometimes I've lacked something that's more contextualised where we do it together with the team, for example. That way you develop, not only yourself, but you develop in the context of where you work... so this is something at least we focus on, at least in Aluminium Metal, more to see effects – real effects for the business, and I think to have context is important"*
>
> Leader 1

Essentially, Leader 1 found it difficult to bring back learnings to the team when only one leader had attended the program. Without the full team being present at the training, it is difficult to replicate the actual working scenario. Nevertheless, the respondent also recognised the difficulty with having a full team attend the programs. If the full team is attending the leadership development program, then there is no one left to perform the actual day-to-day tasks in the company.

> *"Sometimes it feels that it's been a bit to delinked to my normal kind of networks and my daily works, so its... sometimes I've felt a bit that I spend 3-4 weeks on this and then I'll come back and there's not much change that I can do because it's out of context, [...] so it's been the whole program has been designed to nominate people from all over Hydro and for good reasons. But I think that has been certain hindrance for full effect I would say of said training"*
>
> Leader 1

To address this, Leader 1 suggested that nominating people for specific training could ensure that the fit between what the leader needs to develop and what the program is offering can be better. As such, the context and relevance of the program may not be well suited to each leader if everyone across the company can attend.

Furthermore, although network-building plays a vital role in the organisation, there are indications that this is also relatively closed off and internally focused. Thus, expanding one's horizons by gaining outside perspectives through external networks was highlighted as an opportunity for improvement. Additionally, this helps to contextualise different learnings within the company. Leader 6 specifically detailed an external program as a good experience.

"Jumping out of Hydro, it was a lot of new experience for me to be a part of a bigger network and then you had Coca-Cola, you had Apple, you had… a lot of exciting companies with very good leaders sharing their experiences and their way of doing these programs so that is…because I think Hydro has been very internal and closed. So, taking in or sharing more outside Hydro has, for me, been a very good experience."

<div align="right">Leader 6</div>

This indicates that, when attending external leadership development programs, it allows for meeting new people with different perspectives that can help to understand and reflect on leadership challenges. This can be important for understanding Hydro in the context of a global economic arena. Another particularly important aspect of contextualisation was the importance of on-the-job training. Leader 2 was particularly adamant on this issue.

"I strongly believe that the most important part of leadership development happens in your position when you are challenged with real leadership dilemmas because you can get sort of a lot of theoretical or support on the side but it's really when you sit there with the responsibility and when you have to take responsibility for the consequences of your actions, that's really where you sort of stress-test your leadership capabilities and really, sort of, have to manage the dilemmas"

<div align="right">Leader 2</div>

Leader 2 denoted that learning how to manage dilemmas was particularly important for leaders at higher levels in the organisation. Leader 5 agreed with Leader 2 in terms of the importance and usefulness of on-the-job training to develop as a leader. As mentioned, Leader 5 did not think that only classroom training will help much. Instead of focusing on classroom training, as is prominent in many leadership development programs to date, the programs should have a stronger focus on on-the-job training.

"I think [classroom training] is less valuable compared to on-the-job training. It would be better to have a more unstructured kind of… you don't have the theory, but you take the theory along the road as a coach but so… on the job training, definitely. In my opinion"

<div align="right">Leader 5</div>

Since Hydro is a multinational company, it was also mentioned that the company sometimes is lacking in their consideration of different cultures. For example, when scheduling the dates and timelines for the programs, Hydro does not always consider holidays or schedules in other countries that deviate from Norway. Since the company has many nationalities to consider, Leader 9 acknowledged that it is almost an impossible task, but that Hydro should try to show more care and respect other nations' holidays too. The leader mentioned that Hydro probably

does not do this deliberately, but that they should spend more time researching before finalising the dates and times.

> *"Actually, in the programs they have a bunch of different people, you know, maybe from Brazil or the USA or whatever, […] so you know there's a good diversity in it, but I think they fall short on some of the understanding or respect for other people's culture. I don't think they do it intentionally, I think it's just, you know, they're not paying attention"*
>
> Leader 9

Considering how Hydro's operations span across borders and leaders from many nationalities attend the leadership development programs, one respondent chose to focus on diversity inclusion in leadership development. Leader 8 felt that the leadership development programs should not be segregated based on gender but that it should understand the importance of diversity awareness.

> *"I think to have that difference between women and men related to career-path and […] what we kind of take into consideration when we do career move I think should be part of the leadership course…so both men and women can be more aware because I think to get more females into this leadership role, I think that awareness needs to be in place, not only for the woman who are doing the career or discussing their own leadership path, but also men recruiting"*
>
> Leader 8

Hence, Leader 8 felt that recognising the difference between men and women in leadership can be important and should be included more in the programs, often in replacement of a general leadership development program that does not address this challenge. Additionally, with the aforementioned toolbox described as something useful in the leadership development programs, Leader 8 felt that this focus should be greater in leadership development programs for women than what they are today. Tools that particularly focus on overcoming challenges faced more so by female leaders than men were pinpointed as something that could be included in the programs for women in leadership in Hydro.

5.3.3 The role of leadership development programs

Now, we will dive deeper into the components of leadership development programs that play a significant role for the organisation such as transfer of learning, support in the program, mentoring and coaching, and follow up. These are all areas for improvement according to the interviewees. Already during the first interviews we conducted, it became evident that many leaders felt that the learnings from the leadership development programs were hard to

implement in their daily life. The leaders stressed that when they did exercises and discussions, more so than purely theoretical content from presentations, it made it easier for them to reflect on the things they had just learned. When they do not have time to reflect, it is too easy to go back to their normal way of doing things, and that learnings from the programs slip their minds.

"When we do some exercise it's better, I guess, but when we just sit there and listen…it's not always that people really reflect on what they have learned, they just sit there and get lunch, and they go back and do things in the same way as they did before"

Leader 10

The balance between listening to theory and strategy and discussing the learnings with the other participants was a common theme among the leaders. Most of them had already taken part in previous programs or courses where the focus was to teach them theory and tell them how to do their job in a more efficient way. All the leaders highlighted the importance of group work and discussions, both in the teams they are leading, and in teams during the programs.

"I think it's important that there is a balance between theory because I have felt that a lot of noise sometimes it's a lot or too much theory because it is the group work and discussions that is the most fruitful for the team. […] So have a good balance there and really discuss the theory in the team and having good examples and really have some good speakers in Hydro that they are using [and] talks about theory in a very inspirational way"

Leader 6

"[…] If you get only presentations or only workshops you're losing out on your head. You need to kind of have that you maybe do a presentation not too long and key kind of messages, and then we do a workshop, or you do something else. […] So, I would like to have a little bit of everything, but for sure not too much presentations because I think you lose the audience"

Leader 8

Being able to connect the learnings to their daily tasks is important, and it was made clear by the interviewees that on-the-job training and being able to develop as a leader in your daily work is more important than knowing the theory behind it.

"I'm not saying that leadership development programs have no use but that's not really where you learn how to develop your leadership skills or develop your leadership. […] Where you really develop as a leader is in your daily struggles with all the sort of challenges you face or have to manage".

Leader 2

Clearly, the leaders felt that it is also important to get training outside the classroom to be able to face the challenges in their everyday work life. However, several of the leaders pointed out

that some things are harder to learn only through their work, and that it is therefore interesting to discuss that during the programs. Especially interesting is getting knowledge from outside the company, in the form of presentations, workshops, and group discussions. Getting an outside perspective was mentioned by Leader 4 as something that the participants might not expect and could be a positive surprise.

> *"Then I think, let's make that as slim as possible and rather take in things which they cannot get in the company; external inputs, topics which are more on the less technical side, which are less of a technical issue. [...] More of things like happiness at work, resilience, what's in it for me, how do I discuss something, which is maybe not what they expect, where you surprise them a little bit but you think like "oh, this was interesting" and where they come out with different thoughts and different triggers for their thinking, for their mental frameworks. I think that's much more interesting than if they hear about the strategy"*
>
> Leader 4

As an example of how hard it can be to implement changes, Leader 10 mentioned a program that the leader took part in right before starting in a new role. During this program, the participants learned about this checklist that was implemented in the department a couple of years ago and that they needed to know how best to use it. However, when the leader started in the new role and assumed that the other employees were using the checklist, it slowly became clear that no one really used it or had heard about it. Leader 10 remembered thinking that *"They don't know about this checklist, and I haven't thought to learn that to them because I know they were part of learning this course right before I started my new role so I really assumed that they would know"*. This points to the fact that even two years later, the learnings had still not been fully implemented, and that there needs to be follow-up on these changes.

These things considered, it is evident that the leaders think that the programs would benefit from better balancing the use of PowerPoint presentations and theoretical frameworks, having group discussions and exercises, and doing self-reflection. They also wanted to focus more on how to use the learnings in their daily life, how they can implement it in their department or their team, as well as getting enough time to take in what they have learned and not just rushing to their next task or meeting.

Furthermore, a couple of interviewees either explicitly mentioned or indirectly signalled that the support of their leader was important for gaining knowledge from the programs and using that afterwards. Support was mentioned in terms of being sent to the programs in the first place,

preparing for the programs prior to its beginning, discussing the learnings from the programs with their leader afterwards or setting up new targets in relation to the experience from the programs. Leader 1 indicated the difficulty in being available to one's employees as a leader and providing support to them day-to-day, attributing a hectic environment as a contributing factor. The respondent indicated that people always want more, so as a leader it is important to set expectations for your subordinates on what can be expected in terms of support. Leader 8 explained that it is critical that the leaders of those attending the program encourages the attendees to set aside time to fully immerse themselves into the program.

> *"I think that is one important part to have this leadership program and set aside time and, and I experienced during that leadership [program] that one of the leaders pulled out one of the other joining this, and I think that was a wrong decision, so I think it is important that you set aside time, and then fulfil and do it. So, I think I really reacted on that, and I think that was a bad leadership decision that this guy was pulled out of the course."*
>
> <div align="right">Leader 8</div>

Another vital component that was only mentioned by Leader 8 but is important to consider was that this respondent felt the male leaders in Hydro could be better at supporting leaders if they want to develop within other areas outside their initial job description. *"I think also here, some of our male leaders can be even better to support it when somebody would like to do something else"* (Leader 8).

A couple of respondents explicitly pointed towards a lack of preparation and planning before the programs. They agreed that the leaders required more preparation and planning. There were indications that this would facilitate transfer of training. Leader 10 explained that more preparation prior to the programs was useful but they recognised the difficulty this may bring in a hectic workday. When referencing what there could be more of in the programs, Leader 10 said the following.

> *"Even more focus on preparation. That you have some more focus and that you, as a manager, have some more focus that you expect your people to prepare before they go but it's difficult because you know each person is busy, filled up with everyday tasks so then you have to really make sure that they have an available time."*
>
> <div align="right">Leader 10</div>

The above indicates that preparation needs to be highlighted both from the attendees' side and the leaders of the attendees' side. Setting aside time to prepare before the program and to fully immerse oneself in the program once it is happening will help to draw significant learnings

afterwards. It is both the responsibility of the leader in attendance and his or her leader to signal the importance of this through support in preparation. Signalling the importance of the program is particularly important to mitigate the challenge of a hectic work environment and conflicting responsibilities.

In general, there seemed to be a lack of structure when it came to several aspects of developing leaders in Hydro including structured mentoring and coaching programs, structured follow-up, and a structure for how to develop leaders in the organisation. Leader 2 explained that, although there was previously an agreement that a more structured mentor program would be important to develop in Hydro, this is still lacking. Rather, leaders develop because they are *seen* by someone higher up in the organisation, and not because the structure in Hydro specifically caters to finding leaders and developing them in the company.

> *"I think we established quite some years ago in the sort of top management meeting in Hydro that the proper mentor or more structural mentor program is important and I think, you know, a lot of leaders in that meeting, they had the same story, that it was because they were seen by a leader in the company in the past and got support from that leader, that's really why they developed. I think we all recognised that is the reality, but we don't really have a structure that we see all the talents and make sure we develop them, so you know it's not only because you are lucky to have the right leader"*
>
> Leader 2

During the interview it was also implied by Leader 5, among others, that it would be useful to learn how to be a good coach during the programs. This calls for an inclusion of a more structured mentor and/or coaching program to develop leadership capacity in Hydro. However, some leaders also mentioned that having a mentor or mentee is as much about chemistry building and having a good connection as it is about *how* you do it. This can lead to difficulties when setting up the mentor/mentee-couples if a good mentoring program is reliant on establishing a good match between mentor and mentee. Nevertheless, by simply being a leader in Hydro that participates in a leadership development program, the leader may be viewed as a mentor by some people. Leader 7 highlighted that their participation may be crucial for the learnings of others, because of their contribution in discussions.

> *"I have also learned that my participation in a course is also important for the others and sharing my views on things and putting also forward my expectations for what to achieve, for others to achieve through a program as well. So, when you participate in such programs, you can have different roles: you can be the one to be trained, or you can actually influence those*

to be trained. So, yeah, I don't think I would say that I'm thinking of something that wasn't useful or shouldn't be included, because it's all different settings"

<div align="right">Leader 7</div>

As no other leaders mentioned this specifically, they may not be aware of the point leader 7 makes here. It may be useful to learn how to be a good mentor or role model during a leadership development program. It is especially important when the program mixes leaders from different levels because people tend to look towards leaders at a higher level, for example, for advice.

Continuously, it was apparent that follow-up was the main aspect of leadership development programs that was insofar missing and that many respondents felt they needed more of. Leader 9 suggested this in terms of needing more refreshers.

"Maybe you know refreshers, at some point in time. You know, we've done this for twenty years now. But I think it's always good just to spend, you know whether it's once every five years, just going through some sort of program whether it's a day or two days or something. I mean, doesn't hurt, right? and maybe you could put it together with one of your employees, or you do it with your boss maybe, how it feels more of a teamwork?"

<div align="right">Leader 9</div>

According to several respondents, follow up of learnings from the leadership development programs at later stages would encourage successful implementation of the programs. Failing to follow up by those organising or teaching the programs discourages reminders and implementation. In the same vein, including follow up activities that participants can use after the actual program is completed was mentioned as suggestions to improve them. Leader 9 proposed that making a commitment prior to the program, for example with your boss or team, could be beneficial for transferring the learnings afterwards.

"I think you have to make a commitment to, "This is what I'm gonna try to do", and then maybe help facilitate that with the different exercises with team members, say, you know, you all should get together and talk and see in two months and you're working on this team together. That would probably be a good way to keep it fresh and, you know, attractive."

<div align="right">Leader 9</div>

Revisiting the content was suggested by several respondents as a way to facilitate follow-up and thus, transfer of training. Leader 3 explained that once you have learnt material and you utilise it in the daily work, it is useful to revisit and follow up the learnings and then perhaps develop them even further. Otherwise, it is easy to lose or forget what has been taught in the programs. Some suggestions for revisiting the material were exemplified such as providing

reading material like booklets, and discussion on development at a later stage. Leader 9 also suggested to have a buddy that you can follow up with continuously. In this way, people can hold each other accountable, an issue that Leader 9 specifically felt was needed more of.

A few interviewees also highlighted how they specifically took the learnings back to their team to share their experience but also to gain feedback on what they had learnt about themselves. Leader 8 and Leader 5 had some very similar experiences.

"When I learn something or I am going to reflect back on something from the leadership course I either take in my team, discuss it with my leader or some specific team members, depending on kind of what it is and the time frame of it, so that's at least what I do: Try to be open. And that's also very important to be open and discuss "OK, what are my improvements there?" We talked about this topic, and I had this scoring on one of their tests. So, how do you reflect upon me?"

<div align="right">Leader 8</div>

"I always invite them [the team that I am heading] after or during this program that I have attended, and I am sharing both the result from the test but also what we have gone through [...] because then they give me feedback and then I also have a discussion with my leader and then I said 'now this is my target and now you need to help me reach my target'. So that is the way that I want to develop myself and my leadership style and then I also share how we develop that or our team and I think that is a good way to do because it's very good feedback from the team that we are working together, that I go through what we have learned in the program and what I think I will use this for."

<div align="right">Leader 5</div>

Nevertheless, this action was not common across all interviewees. It was apparent that some leaders focused specifically on how they could transfer the learnings back to their team whereas some were more focused on how the content or structure of the programs facilitated or hindered transfer of training. What became most apparent from the interviews was that explicitly relating what was learned in the program to the daily work of the leader was most conducive for transfer. For example, Leader 3 claimed that when leadership programs are too generic, it is difficult to relate them back to daily work in the short and long term.

Some leaders also stressed the importance of the managers of Hydro taking more responsibility regarding follow-up after the programs. Leader 8 highlighted that the learnings from these programs takes time to implement and is not something that the leader of a department can do by themselves over night. *"I think when Hydro decides to start a development or leadership program, they also need to acknowledge that this transformation takes time, and you need to*

repeat it and follow it up" (Leader 8). It was also pointed out that it will be hard for the managers and leaders to find the time to see this through as Hydro is becoming slimmer as an organisation, resulting in fewer and fewer leaders. Leader 7 mentioned that it is easy to fall back into the same, old routines if the new ones are not implemented well enough. Leader 7 summarised it by saying that:

> *"I think that is the challenge we have that we just go back to what we have done and it's not that easy to...and if you have [been] at the same training, then I think it's easier, but it's extremely difficult when you are going to implement this on your own in addition to whatever you do"*

<div align="right">Leader 7</div>

In general, there were three main themes that several interviewees agreed could be beneficial to have more of in leadership development programs. These included facets such as contextualisation and perspective, support through preparation and more rigorous follow-up. It was reflected that currently Hydro's programs are tainted by a silo-focus. This easily happens in large firms with a long-standing history. Several leaders agreed that it would be beneficial to have more external perspectives from, for instance, outside speakers to gain a holistic and outside-in perspective on the company. Additionally, it was felt that what was taught in the programs lacked a relation to daily work life and real leadership challenges. On-the-job-training was raised as a learning method that would mitigate this shortcoming and benefit leaders in the future.

Moreover, in the interviews, many leaders highlighted that more support was needed by their own leaders in preparing for the programs and during the programs. It was important to indicate the importance of committing fully to the program. In the same vein, some leaders wanted more follow-up and that it was more structured as well. Firstly, a commitment to the program and the goals that the attendee associates with the program needed to be established and then followed up by the attendee, the attendee's superior and others attending the program. Following up on these goals and on the learnings of the program encourages implementation after the program's completion. Nevertheless, it was also apparent that the interviewees had different approaches in how they facilitated transfer of the learnings into their daily work. However, several leaders pinpointed that it was challenging to bring back the learnings to their team and that follow up and support through preparation were key components of a leadership development program for its learnings to come to fruition.

Lastly, for incorporating more components into the actual content of the programs, no leader proposed the same thing. However, content that taught leaders how to address various situations such as dealing with stress and analysing one's behaviour in meetings was highlighted as something two leaders wanted more of. In general, the leaders were open to content that pertained to reflecting on one's own behaviour to better meet challenging situations as a leader.

The below table summarises the results of the analysis.

How do the leaders in Hydro Aluminium Metal experience the strengths and weaknesses of leadership development programs within the company today?	
Strengths	**Weaknesses**
Network building	Unbalanced learning methods
Understanding people on a deeper level	Challenging to relate learnings to daily life
Facilitating alignment	Relying on internal resources
Mixed learning methods	Use of roleplay, cultural understanding, and gender segregation
Discussion around strategic content and being able to challenge it	Repetitive content
Putting things into context through external perspectives	Limited follow-up and support

Table 4. Overview of the results of the data collection

6.0 Discussion

In this chapter, we will discuss the most important results from chapter 5 in light of theory and previous research. We will discuss the findings thematically with reference to the model presented in chapter 3. As proposed in the theoretical foundation, a company aiming to strengthen its leadership capacity through leadership development programs should consider both *leader* development and *leadership* development. Intrapersonal skillsets, such as improving the individual leader's abilities, experience, motivation, learning, and personality, could collectively enhance leadership capacity in the organisation. Simultaneously, leadership within the organisation could be advanced through interpersonal development such as network-building (Day et al., 2014). In this chapter, we have therefore divided what Hydro could include and focus on in their leadership development programs into *leader development* (intrapersonal factors) and *leadership development* (interpersonal factors) to emphasise the complex and multifaceted nature of such programs. However, as a starting point, we will go over the preconditions that Hydro should take into consideration when building leadership development

programs. The below model is a revised version of that presented in the theoretical foundation considering the analysis.
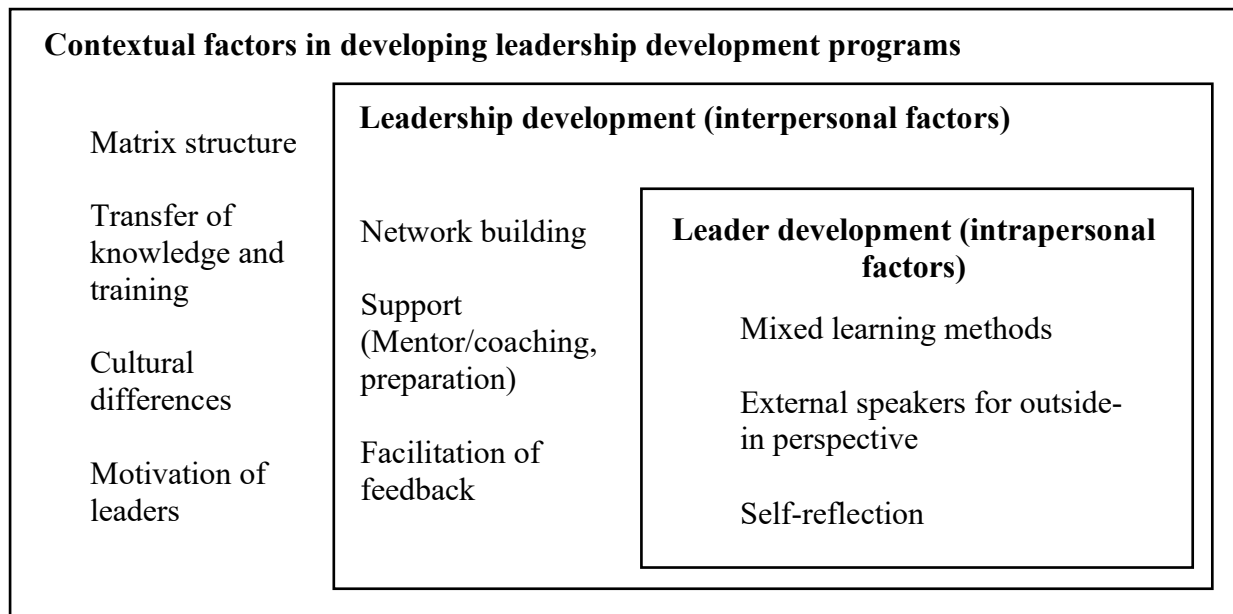

Contextual factors in developing leadership development programs

Matrix structure

Transfer of knowledge and training

Cultural differences

Motivation of leaders

Leadership development (interpersonal factors)

Network building

Support (Mentor/coaching, preparation)

Facilitation of feedback

Leader development (intrapersonal factors)

Mixed learning methods

External speakers for outside-in perspective

Self-reflection

Figure 4. Revised model

6.1 Contextual factors in developing leadership development programs

Leadership development programs are used to improve a company's leadership potential, and it is critical to consider the company's contextual factors to successfully reap the program's benefits. One of the most significant challenges regarding this is that not every leadership development program will be ideal for everyone, as various elements such as leadership experience, position/role, motivation, and personal disposition come into play. Organisational factors should also be considered when developing these initiatives. What is vital to emphasise during the programs will be determined by the company's history, structure, and values.

Regarding individual differences, we found that there were differing opinions on what was useful and not in leadership development programs. This means that what a leader considers valuable may vary depending on where they are in their career and will alter over time (Mumford et al., 2000). This is likely one of the reasons why the leaders in our study opted to highlight different aspects of the programs, and why it was difficult to find parallels between all the components that the leaders desired more of. The motivation of each individual leader may play a role in the transfer and execution of established leadership abilities to the rest of Hydro (Lord & Hall, 2005). This supports the idea that leader development and motivation to grow as a leader have an impact on the organisation's overall leadership capacity.

According to our findings, Hydro's rich history and its core values, play a significant role in these programs, and participants tend to be exposed to them in almost every program. Even though it is vital that Hydro's leaders are well-versed in the organisation's history and principles, especially if they are non-Norwegians who are unfamiliar with the Norwegian culture, it was clear that this is currently done in an exaggerated manner. Merely addressing this in the "New Leaders in Hydro" program should suffice. Through this introduction to the company's history and basic principles, the leaders should have the necessary basis to become successful leaders in Hydro. It is not required to repeat the subject at every leadership development program, which frees up time for other important topics and discussions.

6.1.1 Matrix organisation

Being a leader in a matrix organisation like Hydro can sometimes be overwhelming and complex, and three factors were found to be especially difficult to work around. Firstly, communication in the matrix organisation was found to be quite challenging. Drawing on the relevant expertise from within the company requires knowing whom to contact in different situations. Overlapping responsibilities and complicated lines of authority inherent in a matrix organisation creates a challenge for leaders when they face difficulties on their own. In accordance with what Røsdal (2005) highlighted, it is therefore important that Hydro has good organisational communication to improve their productivity, increase the quality of their products, and reduce costs. This is one of the goals of Hydro's leadership development programs. As a result of attending these programs in person, the participants expand their network enormously with leaders from every level of authority in Hydro. First and foremost, they build networks with other leaders and employees within the company, but also with external speakers and other contributors to the program that have knowledge that might be crucial in the future.

Most of the leaders mentioned that communication and cooperation between each team and unit is good in Hydro. It was clear that, when they knew whom to contact, it was easy to have a good flow of communication and collaborate efficiently with other units and plants. If, for example, one plant has a bottleneck somewhere in production, that makes them produce materials slower, all the other plants make sure to either slow down their own production or put their resources elsewhere, until all the plants are back on track. This indicates that the silo-

focus mentioned by Sy and Côte (2004), in terms of only focusing on one's own team and unit, was not the case for this matrix organisation. Nonetheless, it is critical not to lose sight of the importance of maintaining this good communication and coordination in future leadership development programs.

Two additional challenges in working in this matrix organisation were ensuring that everyone is included in the decision-making process and that consequently some decision procedures take too long. We found that Hydro sometimes suffers from issues such as *"too much democracy and too little action"* (Davis & Lawrence, 1977). Slow decision-making was seen as a root of annoyance for some employees. As found by Sy and Côte (2004), decision-making in matrix organisations often stretches out in time and is sometimes of lower quality than in more traditional organisational structures. This was corroborated in our research.

6.1.2 Cultural differences

Another thing we found to play its part in the leadership development programs is that Hydro is a large *Norwegian* company. This is not necessarily of any meaning to the participants, but in the leadership programs, it is the Norwegian or Scandinavian leadership culture that is being conveyed and taught. This can be a challenge when some of the attendees are, for example Brazilian or American, where they have different leadership cultures. Our findings validate Sund and Lines (2016) research on the impact of cultural differences on leadership facets. Specifically, the fact that decision-making usually takes a long time, seeing that Norwegians tend to want to involve "everyone" in each decision, was found to be both confusing and a bit annoying by the interviewees. This can be particularly hard for non-Scandinavians to get used to, seeing that in other countries and other organisational structures, they tend to get a yes/no answer much faster. Hence, it is important to cover these aspects in the leadership development programs, ensuring everyone is aligned on how things are done in the company, to mitigate the challenge that some people might feel that decisions take too long. Preferably, the leaders suggested group reflection and group discussions, ensuring that everyone understands *why* the line of authority and decision-making process is the way it is, giving everyone a better grasp on how the organisation operates and what they can expect from their superiors.

6.1.3 Transfer of knowledge/training

In our research, it became evident that if leadership development programs are to have any value for Hydro and its employees, it is crucial that the participants understand how to transfer these learnings into their daily work (Baldwin & Ford, 1988). Throughout the interviews, the informants reminded us of the importance of understanding *how* they should use the tools and methods taught during the programs, as this was not explicitly conveyed in some of the previous programs. Especially having "check-ins" where they could talk about what measures they have taken regarding these implementations, were mentioned to be desirable in the future. Yet, for this to work, it is essential that the participants are motivated to start working on these issues after the programs and that they are eager to put their learnings into practice (Salas et al., 2003; Lord & Hall 2005).

However, our data implies that there are different levels of motivation when it comes to transferring the trainings from the programs. Some, for example, consciously brought the learnings back to their team, whereas others did not. As a result, it is reasonable to predict that the leaders' motivations for participating in the programs and especially, applying what they have learned will differ. Our findings also suggest that the development of leadership skills, as well as the transfer and execution of learned leadership skills to the rest of the organisation to enhance leadership capacity, may be dependent on the individual leader's motivation. This backs up the premise that leadership development and everyone's desire to grow as a leader has an impact on how successfully leadership programs are transferred, and thereby also the organisation's overall leadership competence.

When it comes to developing specialised leadership qualities, it is important that the leaders are challenged to, for example, give feedback, have an open mindset, listen actively, and hold presentations. Without being asked to challenge themselves by taking the theory and putting it into action, it will also be hard for the leaders to remember these learnings at a later stage. The transfer of their training will, therefore, be much higher if they are exposed to things that they are not as comfortable with yet, and actively try to implement them in their work-life (Baldwin & Ford, 1988). In terms of what factors have a beneficial impact on leader self-development, there is a general lack of studies. However, our research shows that if leaders take responsibility for their personal development, and if the leader wants to share their expertise with the team, then it is easier to transfer what they learn during the program to the rest of the organisation.

Regarding organising the program so participants are prepared to apply their learning in the workplace, we discovered that the leaders prefer a combination of methods. More specifically, we found that a program consisting of presentations from both Hydro's executives and external parties, different exercises within each theme, time for self-reflection, as well as enough time to have fruitful plenary discussions would be ideal. This is in accordance with what Amagoh (2009) found to be crucial parts of any successful leadership development program. It is important that the participants can reflect on their learning experiences to be able to transfer the skills back to their work. There is no point in sending leaders across the world to participate in a leadership development program if they are not able to reflect on and understand how they can use these learnings to benefit themselves, their team, and Hydro in general, post leadership development program.

6.2 Role of leadership development programs

In our research we found that there are three major themes that are extremely valuable to emphasise and facilitate in a leadership development program: *Networking, feedback,* and *support*. These themes play important roles in developing leadership capacity in the company by facilitating interpersonal relationship development between leaders. When these factors are focused on with reference to the company's organisational conditions and leaders' individual conditions, it increases the usefulness of the program to the leaders and the organisation in which they work. This usefulness transcends from outcomes like facilitating alignment, encouraging transfer of training, and contextualising the work and the challenges faced by the leaders.

6.2.1 Networking

One of the most important findings in our research was the emphasis the leaders put on network-building in leadership development programs. Networking allows relationships between people in the organisation to flourish, something that is beneficial for communication and synergy in the company. As such, giving them enough time to network can have a positive impact on leadership development in terms of strengthening the company's leadership capacity. We discovered that all ten leaders view networking as one of the most significant outcomes of these programs, both for themselves and for the organisation, because having a good network in the organisation makes the flow of information easier to sustain. When linking this consensus with the theory, using leadership development programs for network-building

can have important positive implications for organisational communication, teamwork, and effectiveness.

By facilitating cross-functional communication, leaders in Hydro can discuss strategic goals and mitigate the challenge of ambiguous authority lines in the programs, easing the difficulty of aligning goals in a matrix organisation (Bartlett & Ghoshal, 1990). In a leadership development program, networking allows you to communicate with other leaders over coffee and to connect in more casual situations. Both formal and informal communication is nurtured and thereby, organisational communication is improved. Our findings suggest that leaders value informal talks as it allows them to learn more about their colleagues and hence, better understand how they act and react. Allowing this to blossom during leadership development programs can help to build managers who are aware of social dynamics and can spark debate. As a result, knowledge application may be positively influenced (Nesheim et al., 2011).

Our data also indicates that networking allows leaders to obtain support from other leaders, something earlier theories also have suggested. While attending initial leadership programs like 'New Leaders in Hydro', leaders were able to quickly create a network that allowed them to contact other leaders with varied experiences when they faced obstacles in their careers. Although it is apparent that networking has important benefits to leaders in an organisation, especially in a matrix structure, management of these formal communities is crucial (Nesheim et al., 2011).

Nonetheless, it has been established that the Hydro programs thus far function as a gateway for networking among leaders in Hydro and that this should remain a fundamental component of the programs. As such, opening the schedules for coffee breaks, and even facilitating special events like joint dinners, could be a way to make the programs more memorable and initiate network-building to a greater degree. Hydro may already do this but putting a greater emphasis on it could be of great value. Managers can show their support for the formal and informal communities in the company by designing leadership development programs while bearing this in mind (Nesheim et al., 2011). As suggested in the theory, social network analysis could be employed to measure and monitor how the level of connectivity in the company changes before and after the leadership development programs (Day et al., 2014). It could also be useful to conduct these analyses throughout one's career as a leader in Hydro.

However, we must remember that an individual leader's motivation to network during these programs might influence how beneficial leadership development programs are for this specific goal. When employees are intrinsically motivated to participate and actively engage in networks, they will ask questions and seek answers to difficult challenges they are facing (Nesheim et al., 2011). It is not given that all the leaders in Hydro are intrinsically motivated to do so. Still, because networking forms a clear component of the company and was an issue raised by all the leaders in the interview process, it seems our respondents were, in fact, intrinsically motivated to network (Brochs-Haukedal, 2010). This could also explain why they engaged in our data gathering, as they were intrinsically motivated in general when it came to leadership.

6.2.2 Support

Support in a variety of forms can play a big role in how well a leadership development strategy is adopted and used in Hydro. We discovered that all the leaders wish to feel supported in their leadership development path; but, due to time constraints and other duties, support is sometimes underestimated. It is critical to recognise the delicate mix of support and other tasks that managers strive for on a daily basis. As a result, the programs should be structured and planned so that leaders may provide and receive help before, during, and after the programs. This is especially true for adhering to Hydro's AMBS Principle 5 visible leadership which includes support and guidance.

What we found in our research, both in the reference to lack of current support and the desire to have more support, is that more structure is necessary regarding the programs that already exist. A supportive atmosphere is especially important in a matrix organisation where challenges like indirect authority lines and unclear responsibilities can lead to conflicts (Sy & Côté, 2004). It has become evident to us that having a supportive environment in Hydro may make it simpler to reap the benefits of the matrix structure, such as pooling human resources and cross-functionality, to fulfil company goals. If the leaders have developed solid relationships with one another, they will be able to support each other across functions.

In accordance with Fleishman (1953), we found that the lack of a supportive work environment built around leadership development programs in Hydro is one of the main reasons for the difficulty to transfer training to their daily work. Once the programs are over, the leaders are

expected to return immediately and pick up any slack or tasks that they put on hold while being away. This implies that the leaders do not have the time or resources to plan for the implementation of their new skills, and they typically revert to "normal" very quickly. In reference to this, we also found that the leaders want more support in advance of the programs to be better prepared, which will induce transfer of training. Signalling the importance of the leadership development programs before and during the programs will also help to alleviate the difficulties of juggling multiple obligations.

To yield the most out of the leadership development programs, support and preparation are crucial components. One way of implementing this is to have more structured mentor and coaching programs. In our research, it was indicated that Hydro has previously wanted to have a mentor program but due to the difficulty in matching mentors with mentees, this never properly materialised. Instead of a structured general mentor program, there is potential for a mentor program between new and senior leaders in Hydro. The advantages of this would be to assist new leaders facing leadership issues by drawing on previous experiences (Hirst et al., 2004) and to address the challenge of establishing programs that fit leaders at various levels. Another option, as proposed by one of the leaders in the interviews, is to introduce a buddy program for the leadership development programs. Prior to the program, each participant can be allocated a buddy with whom they can set program goals, maintain responsibility during the program, and follow up thereafter. This will in turn induce transfer of training.

6.3 Leader development – content of the programs

In order for Hydro to have a successful leadership development program that prepares each participant to be the best possible leader, we found that they need *feedback* and a *mix of various learning methods*. These components are key for intrapersonal development.

6.3.1 Mixing different learning methods

Regarding the content of leadership development programs, our findings suggest that most leaders in Hydro prefer a variety of methods. Sticking to only one method of learning will be boring and seeing that these programs usually last over a couple of days, it is important that Hydro facilitates interesting, self-reflecting, energising, and motivating content (Popper & Lipshiz, 1993). Preferably, the leaders mentioned that a program consisting of presentations from internal and external parties, exercises, self-reflection, and plenary discussions would be ideal.

One of our most conclusive findings is that none of the leaders were interested in a leadership development program that consists solely of listening to PowerPoint presentations about Hydro's strategy and goals. This was mentioned to take up too much time in the existing programs. The leaders clearly grasp the significance of these lectures, but they would prefer to read it in an information leaflet prior to the program. This would save time which could be used to introduce new concepts to the participants, develop toolboxes, share their queries or concerns with fellow leaders, and discuss how this affects the different departments and teams in their working life.

Furthermore, our research indicates that it is critical for leaders to be challenged to give each other feedback, deliver presentations, practice active listening, and have an open mindset as they acquire specialised leadership abilities. It will also be difficult for the leaders to retain these lessons if they are not challenged to put the theory into practice. If they are regularly exposed to these ideas and actively strive to integrate them in their work-life, the transfer of their training will be considerably higher (Baldwin & Ford, 1988).

Our data collection suggests that the leaders mostly want to focus their attention on open skills during these programs. They talked about wanting to learn how to better motivate others, how to build great teams, how to give feedback, how to create trust, how to best communicate with their team, and so on. Rarely, if ever, did the leaders suggest more hard skills like the business' strategy or financial acumen. This follows what Amagoh (2009) elaborated on, stating that these types of programs should include several different focuses, but especially highlighting the importance of open skills. This may also relate to the hierarchical level of the leader; as leaders become more senior, developing open skills like strategic management become more important (Blume et al., 2010). Mumford et al.'s (2000) research found that interpersonal and cognitive skills become less important as leaders become more senior. On the contrary, our findings indicate that interpersonal skills, like network-building, remains a crucial component of leadership development programs regardless of hierarchical level.

Another important finding is that the leaders desire to learn about leadership from outside sources rather than solely through Hydro's internal resources. As previously stated, the informants desired more presentations from external leaders and experts, emphasising the need of having an "outside-in" perspective rather than focusing just on what occurs within the walls of Hydro. The leaders stated that they wanted to hear experiences from other leaders'

professional lives, including both successes and failures. By adopting a more external perspective, the programs are likely to be more engaging and motivating for the leaders, as they will be greeted by someone who is passionate about what they are talking about, rather than someone who is simply presenting it as part of their job. This may also mitigate the introverted silo-focus of a large corporation and contextualise the leaders' and organisation's challenges.

6.3.2 Feedback

Receiving feedback can have important implications for leader development. In the theory, receiving feedback is closely linked to self-awareness and self-reflection. Our findings indicate that when the leaders receive feedback, it makes them reflect on themselves and their leadership style. Some also continuously ask for feedback from their subordinates. However, we found that the feedback given in Hydro is mostly related to target-setting. Feedback from one's own leader should be incorporated into a goal-setting mechanism so that areas for improvement can be targeted and monitored.

In accordance with Seifer and Yukl (2010), we found that the number of feedback sessions conducted has a favourable impact on leader effectiveness, indicating that more resources should be dedicated to this area within the program framework. Although there was no agreement on whether psychoanalytical testing should be used in the programs, it is argued that having input from a third party is extremely beneficial. Getting a fresh viewpoint can help to avoid the silos that sometimes develop in larger organisations. When we combine feedback with the concept of networking, leadership development programs become a springboard for receiving feedback from new individuals, which some respondents described as both valuable and fun.

If Hydro wishes to include feedback in their leadership development programs, it must be more than a checkbox exercise to be effective; it must be integrated into goal formulation and the program as a whole. Despite the fact that 360° feedback is referenced in the theory and briefly in the data collection, it should not primarily be dependent on for collaborative leadership capacity gains (Facteau et al., 1998). It will be beneficial to Hydro in general if its leaders have a better understanding of how they are regarded by others, as this will result in a more accurate self-view. This will help them identify their strengths and limitations, which in turn will lead

to improved decision-making and conduct (Ashford, 1989). This can result in both leader and leadership development, increasing the organisation's total leadership capacity.

7.0 Conclusion

The purpose of this study has been to understand how leaders in Hydro Aluminium Metal experienced strengths and weaknesses of leadership development programs provided by Norsk Hydro. By answering our research question, we have been able to understand what the leaders in Hydro found useful in these programs. As a result of this, we were also able to get an understanding of how Hydro should pursue these programs in the future to further develop its leaders. Accordingly, the results from our study present four prominent findings.

Firstly, we found that leaders in Hydro are quite happy with the facilitation and content of the leadership development programs in the company. They experience the learnings as important, and even though they might not find every aspect as interesting, they understand *why* it is a part of the content. However, it is safe to say that because Hydro is a large and diverse company, there is always someone who is not going to take as much interest in the programs because of personal dispositions and background.

Secondly, networking plays the most important role of the programs. No matter what the leaders found interesting in the programs, networking was always mentioned as the most important outcome. In an international matrix organisation like Norsk Hydro, it is of essence to have a large network to rely on. The company has a great deal of expertise and important knowledge spread throughout its subsidiaries worldwide, and to take advantage of this, leaders must be able to draw on relevant networks within the organisation. Attaining a larger network is currently experienced as an indirect result of the program, as leaders naturally get to know those in attendance. However, as the leaders expressed their interest in getting more time specifically to network, network-building should form a larger part of the programs in the future.

Thirdly, during the programs, Hydro's leaders prefer to be exposed to a variety of learning methods. Preferably, they want programs that incorporate internal and external speakers, self-reflection, group discussions, and other exercises that may be completed in diverse groups. This will encourage cross-organisational learning and networking, and they will be able to

maintain a far higher level of participation and enthusiasm than if they were just sitting in their chair and listening all day. Several of the leaders also pointed out that some of the information given at these programs is repetitive. The strategy and history of Hydro were specifically emphasised, and it was suggested that executives should go over this in greater depth at the "New Leaders in Hydro" program, and then presume that they are well-versed in this. This could save the facilitators time in future programs, allowing them to focus on activities that keep the participants engaged and develop their intra- and inter-personal skillsets further.

Fourthly, the leaders experience that there is no structured support system before, during, or after the programs. A structured support system would enable the leaders to better prepare for new learnings prior the training. Before and during the programs, they could more easily discuss the content with their superior. After the programs, a follow up would be useful for transferring the learnings to real-life challenges and daily work. It is important that leaders feel that they are supported by their superiors to set aside time to attend the course, and more importantly to be given the time and resources to implement necessary changes when returning. Regarding this, we also found that a mentor or buddy program within Hydro would be of interest. This would allow leaders to talk with a mentor/buddy about their new insights and learnings, which might provide them with fresh perspectives from someone who is familiar with the firm, its culture, and its leadership style. Coupling new and senior leaders was one worthy suggestion.

It is evident that Hydro has already conducted leadership development programs that are well received by their leaders, and these findings are merely suggestions for what they can do differently in the next programs. However, making these changes can have a positive impact on both the leaders in Hydro as well as the company's leadership capacity. This is because the participants will feel listened to as they have contributed to some aspects of the content, something that might also lead to more involvement and commitment. If the participants are more intrinsically motivated to commit to the programs it is safe to assume that they will put more effort into the transfer of their training after the programs, something that will, in fact, have the effect that the programs are intended to have. For the programs to reap maximum benefits for the organisations' leadership capacity and for the investments made by Hydro into the programs to be worthwhile, future leadership development programs should consider the multifaceted nature of leadership development, allowing for both intrapersonal development of their individuals leaders and interpersonal leadership development.

7.1 Contribution to the existing literature

Focusing primarily on one method of leadership development, our research contributes to the leadership development literature as well as the transfer of training research field. It contributes by outlining what leaders in a multinational company consider strengths and weaknesses of leadership development programs. As such, we bring together relevant factors such as the content of the programs and how to better facilitate both leader and leadership development. For example, it extends the literature on leader and leadership development offered by Day et al. (2014) in the Leadership Quarterly by adding new aspects to each category and referring to leadership development programs specifically. Our research also suggests that when establishing these learning approaches, special attention should be made to the organisation's structure, particularly if it has a matrix structure because the issues that these leaders face go beyond standard challenges. Our findings suggest that it is perhaps not the content of the programs themselves that are important for the leaders in attendance but contributing factors surrounding the programs such as informal networking capabilities. Therefore, the learning methods like presentations and group discussions may just serve as a means to an end, the end here being networking, gaining new perspectives, and strategic alignment.

7.2 Practical implications

Based on both the theoretical foundation and our analysis, we can suggest some practical implications for multinational companies. Firstly, to use the leadership development programs as a way to build networks, managers should organise the programs to include coffee talks, mingling periods, and networking dinners to encourage the establishment of informal network communities. If they have the time and resources available, companies should perform social network analysis to evaluate, measure, and monitor the effect of leadership development programs on network communities in the organisation. Secondly, follow-up of the programs can be conducive to the transfer of training. To facilitate this, leaders should set up goals before the program with their supervisor and follow these up during and specifically after the programs. This will make it much easier to see changes and understand where the biggest challenges lay.

Additionally, a support system through a buddy program with another attendee of the leadership development program can facilitate goal setting for the programs and more cohesive

follow-up without eating into internal resources. This can also help to build interpersonal relationships. In terms of feedback, it is crucial that this is integrated fully into the leadership development programs and not used merely as a box-ticking tool. Methods like 360° feedback, as shown by the theory, can have positive implications on leader effectiveness, but only if it is used effectively. Managers should therefore pay special attention to how feedback is used throughout the program to help individual leaders retain the most out of the program in terms of leader and leadership development.

For a company organised in a matrix structure, it is fundamental that leadership development programs take into consideration the challenges that this can bring for a leader. Managers who wish to execute effective leadership development programs should focus on providing material and organising the program in such a way that it encourages alignment and cooperation. In these settings, learning how to lead in a matrix organisation may be especially critical for new leaders.

Lastly, leaders at different hierarchical levels may benefit from attending different leadership development programs. Notably, however, theory often refers to hierarchical levels as the distinctive category. It may be useful to look at this as leadership experience instead, as new leaders, in general, may face more challenges than senior leaders, no matter the hierarchical position that they may find themselves in at a new company.

7.3 Further research

Although leadership theory is a mature field of study and the leadership development field is starting to unravel, there has been little research done on both the theoretical and practical aspects of leadership development programs and their consequences for leaders and businesses. It would be useful to conduct a longitudinal study to evaluate the success of a new leadership development program that considers the insight and input from this analysis. However, due to the time and resources constraints, as well as the purpose as a master thesis, this was beyond our scope. As the leaders in our data collection were primarily Norwegian nationals, it could be useful to dive deeper into the impact of culture on what elements of leadership development programs are useful for strengthening leaders and leadership capacity.

Although motivation was highlighted as a potential important component of the usefulness of leadership development programs for the individual leader, this could be worth exploring further. It was difficult to evaluate the level of motivation of the leaders interviewed and as such, the extent to which motivation has an impact on engagement in the leadership development programs, how useful leaders found them, and how the learnings were implemented. More research could focus on the relationship between motivation, self-development, and transfer of training.

Lastly, as some of the leaders mentioned, on-the-job training has the potential of being even more valuable than leadership development programs. Further research into this development method could be of value, especially for facing new leadership challenges as the business world becomes more uncertain and for finding solutions to "unknown problems". A potential avenue of research could also be to evaluate the usefulness of on-the-job training for leaders at different hierarchical levels.

7.4 Limitations

To be critical of our research, we have identified a few limitations to our study. Firstly, most of the leaders we spoke with had not attended a leadership development program in Hydro in several years. This means that we relied only on their memories from previous programs for our research, suggesting that their core memories may have been magnified or lost over time. Secondly, even though the informants thought the programs they had previously attended were good, they admitted that they would probably find other elements more engaging and interesting now. This suggests that what leaders considered valuable may differ depending on their prior leadership experience and the hierarchical level at which they are currently working.

Another constraint to the study was that all the interviews were conducted in English. Most of the interviewees were not native speakers in English. Hence, some phrases or meanings may have been lost in translation. The interviewees may not have felt that they could fully express themselves as they could have in their native tongue. However, we do also consider that most of the leaders we spoke to use English frequently as a business language, so we do not view this as a major barrier but rather an important consideration to bear in mind. We also gave them the opportunity to explain certain aspects in Norwegian if they felt like they could not express themselves correctly, before returning to English.

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9.0 Appendices

Appendix A: Overview of current leadership development programs in Hydro

Leadership Development Program	Purpose	Attendees
Hydro Fundamentals Digital	An introduction to Hydro for all new employees: • A brief introduction to Hydro's organisation, history & values, goals, operation, people and guidelines • Welcoming all new employees	New hires with less than 1 year in the organisation
New Leader in Hydro	• To develop Leading the Hydro Way leadership competencies • To accompany the transition from expert to first leadership position • To enable first time leaders to impact, perform and thrive in their actual environment, considering Hydro's strategic ambitions and organisational changes to match global megatrends • Creating leadership self-awareness • Building networks across the value chain that contribute to personal effectiveness and results delivery	New leaders in Hydro, that were within the past 12 months promoted into their new roles to support their transitions
Hydro Professional Program	• To equip Hydro professionals to be able to thrive and deliver in a changing world with rapid disruptions • Provide professionals from across the organisation with an understanding of the new digital reality and the skills, knowledge and network needed to navigate and perform in an effective and efficient way • Building networks across the value chain that contribute to personal effectiveness and results delivery	Professionals in key positions developing on the professional/ specialist path, motivated to take on increasingly complex tasks and roles, with responsibilities that require collaboration across functions, business units and/or geographies
Hydro Leadership Program (HLP)	To support the development of leaders in: • Practice and develop Leading the Hydro Way to engage and enable individuals and teams to perform • Gain an insight into Hydro's Value Chain, strategic direction and key commercial drivers. • Gain diverse perspectives on leadership from across the business and the external environment • Understand and translate Leading the Hydro Way to own role • Build networks across the value chain that contribute to personal effectiveness and results delivery • Become inspired to seek new opportunities and challenges	• Leaders either working at, or aspiring to management level 3 and 4 that have direct reports/personnel responsibility • Candidates in the Succession Candidate Pool to Group Critical Positions • Can commit her/himself to the program
Hydro Executive Program	Hydro has the ambition to take a lead role in building industries that matter. To help us succeed in a fast-changing world, we have a goal to equip our leaders	L1 & L2 leaders

(HEP)	with the best knowledge and skills to inspire and engage our people in driving the transformation towards a low-carbon circular economy. The HEP program aims to pave the path for Hydro's current and next generation senior executives enabling the program participants to lead with confidence in an increasingly competitive business environment.	• Candidates in the Succession Candidate Pool to Group Critical Positions
HR Leadership Training	The purpose of HR leadership training is to provide new managers in Norway an introduction to HR processes, regulations, and tools. Monthly webinar followed by an e-learning program that covers relevant topics for new managers.	New managers with direct reports (Experienced managers can also participate)

Appendix B: Interview Guide

Intro/general
1. Tell us a bit about yourself and your background.
2. What is your role and position in Hydro?
   a. How long have you worked as a leader in Hydro?
   b. Have you had other leadership positions in Hydro?
3. How long have you worked here?

Leadership
1. **The Leadership culture in Hydro**
   a. How would you describe the leadership culture at Hydro? (e.g. collaborative, open, feedback etc.) Can you elaborate on how that is noticeable in Hydro with examples?
      i. How have you seen the culture changing
      ii. How much freedom do you have to set goals for your department and team? Would you say that you as a leader are involved in setting goals for your department (evt. Hydro in general)? How is that communicated/translated/trickled down to subordinates?
   b. Can you tell us a bit about how you cooperate with your closest leader?
   c. What aspects of a leader do you think fit well with what you need, and motivate you to do what you need to do in the organisation?
   d. Thinking of a recent situation you as a leader has experienced, what factors do you consider important for a good leader to possess?

Leadership Development Programs
2. **Experiences LDP**
   a. From your own experience, what type of leadership development activities implemented by a company have you found most/least useful and why?
   b. Have you ever participated in an LDP through Hydro?
      i. If yes to have participated at LDP, will you please tell us a bit about this program?
      ii. What parts of the LDP was useful?
      iii. Where some parts less useful? Why?
   c. Did you miss anything in this program?
   d. What do you think are important factors for an LDP to be successful and interesting for the different leaders in Hydro?
   e. Have you had a role in a leadership development program? What feedback did you receive from participants about the activities?
   f. Based on previous experiences, what would you say a successful LDP should include?

3. **Implementation of the LPD in the daily work:**
   a. How did you use the knowledge gained from the LDP in your daily work after completing the LDP?
   b. Speaking from experience, what made it easier and more difficult for you to use the skills and knowledge learnt in the leadership development activities in your daily work afterwards?

Goal setting

1. What do you need from your closest leader that will help you achieve your goals at work?
    a. Is there anything you need that they are not doing?
2. What do you do in order to help your employees achieve their goals at work?
    a. Is there anything you would want to do differently? Or something you would want to learn how to do differently?

(For leaders working in other countries than Norway)
Cultural differences in a multinational company

1. How would you describe your own leadership-style?
    a. Would you say that this is a normal description of a leader in your country?
        i. Why? Why not?
2. If you have participated in an LDP: In your opinion, how do you think Hydro considers the differences in leadership styles and cultures when guiding you through the program?

Appendix C: Information letter sent to potential interview respondents

We are two master students from The Norwegian School of Economics (NHH) in Bergen, and we are lucky enough to write our master thesis in cooperation with Hydro. The aim of our thesis is to answer the following research question: How do the leaders in Hydro Aluminium Metal experience the strengths and weaknesses of leadership development programs within the company today?

In our efforts in doing so, we hope that you will help us by letting us interview you for approximately 45 minutes. We will ask you questions about your background, goals, your experiences within Hydro, etc., and everything will be completely anonymised. We, and our supervisor at NHH, will be the only ones with access to the interview transcriptions, which will be deleted after our analysis. We will present our findings to you after the submission of our thesis.

We will shortly contact you regarding an invitation for an interview, in which we will conduct on Teams. If you want some more information about our project, please read the project description attached. Here, you will also find examples of questions you might be asked.

We really hope you see the value of our research, and that you will let us interview you to get your insights.

Kind regards,
Juni Oldensand & Hanne Pedersen

Declaration of consent – Participation in a research project

Background and purpose
This research project is a part of the RaCE program at SNF and NHH. The purpose is to understand what facilitates and/or hinders the successful implementation of a leadership development program in a multinational company. We address people with leadership positions within Hydro that have been through or are going to attend a leadership development program.

What does the participation in the study involve?
The interview will take a maximum of 60 minutes, approximately 45 minutes. If you approve, we will record the interview on audio file and transcribe it. The audio file will be deleted after transcriptions, and the transcribed version of the interview will be anonymised.

What happens to the information about you?
All personal information will be treated confidentially, and the information stored with the transcribed version of the interview will not contain a name – but a dedicated code. Names and other contact information, including this form, will be kept separate from interview data. Only the project group at NHH/SNF will be able to access the anonymised interviews.
Your information will be completely anonymised.
This project is scheduled to end June 2022.

Voluntary participation
It is voluntary to participate in the research project, and you can withdraw your consent at any time without giving any reason. If you withdraw, all information about you and your interview, will be deleted.
If you have any questions about the research project, you can contact Karen Modesta Olsen

Consent to participate in the study
I have received information about the study, and I am willing to participate in interviews.

(Signed by project participant, date)

On behalf of SNF/NHH, NSD – Norwegian Center for Research Data AS has assessed that the processing of personal data in this project is in accordance with the privacy regulations.

Your rights
As long as you can be identified in the data material, you have the rights to:
- Access the personal information registered about you,
- Have your personal information corrected,
- Have your personal information deleted,
- Receive a copy of your personal information (data portability), and
- Send a complaint to the Privacy Ombudsman (personvernomburdet)or the Data Inspectorate (Datatilsynet) about the processing of your personal data.

What gives us the right to process personal data about you?
We process information about you based on your consent.

Appendix E: Letter of approval from NSD

Meldeskjema / Masteroppgave / Vurdering

Vurdering

Referansenummer
634381

Prosjekttittel
Masteroppgave

Behandlingsansvarlig institusjon
Norges Handelshøyskole / Institutt for strategi og ledelse

Prosjektperiode
14.11.2021 - 30.06.2022

Meldeskjema ↗

Dato	Type
15.11.2021	Standard

Kommentar
Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet med vedlegg den 15.11.2021, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

DEL PROSJEKTET MED PROSJEKTANSVARLIG
For studenter er det obligatorisk å dele prosjektet med prosjektansvarlig (veileder). Del ved å trykke på knappen «Del prosjekt» i menylinjen øverst i meldeskjemaet. Prosjektansvarlig bes akseptere invitasjonen innen en uke. Om invitasjonen utløper, må han/hun inviteres på nytt.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 01.07.2022.

LOVLIG GRUNNLAG
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER
NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

· lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
· formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke behandles til nye, uforenlige formål
· dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
· lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), og dataportabilitet (art. 20).

NSD vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Ved bruk av databehandler (spørreskjemaleverandør, skylagring eller videosamtale) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema. Du må vente på svar fra NSD før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos NSD: Silje Fjelberg Opsvik
Lykke til med prosjektet!