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Combining a virtual and traditional work setting

How to efficiently organize meetings in a hybrid setting

Master's thesis in Design and construction project management

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Abstract

Following the recent pandemic, Covid-19, the way co-operations practised meetings saw a drastic change. From assembling involved parties in a common space to utilizing meeting software which allowed for meetings to be conducted through computers and mobile devices. Virtual meetings and hybrid meetings became popular substitutes for traditional meetings but were found to come with implications of their own. In the case of Ramboll, the company participating in the case study, hybrid meetings were found to be the substitute in need of the most aid. Through an initial literature review, an observation study and an interview study were developed. The three methodologies resulted in a clear mapping of the root of the issue, which showed itself to be the way the company conducted meetings in general and not a problem inherent to hybrid meetings. The literature review produced fourteen aspects of meetings which all impacted the efficiency of Ramboll's meetings. During the observation study, these fourteen aspects were investigated to determine which were in the largest need of support for the company to make improvements. Ultimately, a list of bullet points describing how to chronologically conduct hybrid meetings in an efficient manner, in regards to Ramboll's situation was constructed.

Keywords: Hybrid meeting, Virtual meeting, Efficiency, Template, Change management

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Axel Holmquist & Fredrik Zäther, Gothenburg, 2023

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1
Introduction

Meetings play a major role in organisational life and can make up a large part of time spent working. They serve as a medium for information sharing, decision making and social interaction within, and between companies all around the globe. Making certain that meetings are conducted in an efficient manner and serve their purpose could arguably be of major importance for anyone depending on them. Recently, a different kind of meeting has seen a rise in frequency, the hybrid meeting.

1.1 Hybrid meetings

Work and by extension meetings are by nature an exercise in coordinating individuals in time and space (Gratton, 2021). Comparing what we denote as traditional and virtual meetings first, the traditional, or face-to-face meetings, need to coordinate in both time and space. That is to say that all participants need to be at the same place at the same time to enable a meeting. Meanwhile, the latter virtual meeting needs only to coordinate in time as every participant can participate from their workstation wherever that may be. The meeting type that this thesis will be focused on is hybrid meetings, in this type of meeting participants will have to be coordinated in time and in space to a varying degree. For example, if one group of participants are co-located in time and space while at the same time on call with other groups or individuals in separate geographical locations through virtual means, be it through a phone or software such as Microsoft Teams, Zoom, or Skype they are conducting a virtual meeting. By this definition hybrid meetings are meetings where the means of communication are mixed, we both have analogue communication, face-to-face, and communication through digital means (Constantinides & Quercia, 2022)(Standaert et al., 2022).

Early in 2020, the Covid-19 pandemic changed our way of life and with it, it changed how we conducted our business and our meetings (Karin M. & Joseph A., 2022). Social distancing becoming an important aspect of day-to-day life had implications on people's professional life as well. A quick shift from face-to-face meetings, which organisations had relied on for a long time, to fully remote meetings was the reality during the spring of 2020 (Pinzaru & Stoica, 2022). Conducting any other type of meeting was off the table, especially in countries where a lockdown was put in place (Karin M. & Joseph A., 2022).

The question arose regarding how the change to remote work and remote meetings would impact productivity, which was later researched by Gaskell (2021). The results produced by the author claimed that people retained the same levels of productivity, if not higher than before.

Following the transition to fully remote Karin M. and Joseph A. (2022) explains how the return to traditional face-to-face meetings began. However, remote work had found its place in organizations and the hybrid meeting emerged as a common alternative along with traditional and virtual meetings. The case researched in the article by Karin M. and Joseph A. (2022) explores how remote teams adopted hybrid meetings in their work.

Considering sustainability the prevalence of and continuous use of virtual and hybrid meetings have the possibility to provide benefits in all three sustainability aspects. For example, these meetings save financial expenses and environmental emissions caused by both long and short-distance travel. This is further exemplified in the study by Ellis et al. (2022) who provides several arguments for the adoption and continued use of hybrid meetings. The authors found that cost savings, as well as time savings, were heavily influencing the current change. Furthermore, it enables experts and colleagues stationed elsewhere to be a part of the collaborative effort without the need to relocate for either short or long periods of time. Finally Ellis et al. (2022) argued that the flexibility contained among remote employees was discussed as a very competitive aspect.

1.2 Background

Ramboll is a consulting firm within the construction industry and operates worldwide. The part of Ramboll which is being studied in this report is Ramboll Sweden and more specifically the transport division. One of the authors has previously worked part-time at the company from which the contact with the company was first initiated. A team specialised in project management in larger infrastructure projects, called DMO or Design Management Office, showed interest in figuring out why their hybrid meetings were performing sub-optimally. A few discussions with the head of the DMO department resulted in the opportunity to perform a case study and develop this report.

Ramboll explained how they had experienced symptoms of inefficiency when transferring from traditional face-to-face meetings, to fully virtual meetings and then the shift to hybrid meetings. Some of these symptoms were difficulties regarding communication, issues keeping the allocated time and employees losing engagement. Something which could be found as common according to Karin M. and Joseph A. (2022). The DMO team being stationed in three different cities around Sweden had put them in a position where the drivers for going hybrid outweighed the drivers of traditional meetings. The question at hand was how to successfully implement hybrid while retaining value creation.

When asked to explain why the switch to hybrid meetings was preferable for the team, the contact at Ramboll highlighted several pros. The first one was the ability to assemble teams where geographical factors were eradicated. No longer would an employee need to travel between offices to attend meetings in teams which were stationed in another city. Both the cost and time tied to said travel could be avoided. Further, the argument that remote working would enable better teams was brought to light, following the ability to always pick team members according to skill over location.

Furthermore, an employee of Ramboll Sweden expressed, through personal communication with us, how their Norwegian colleagues had been found to have superior meeting processes and internal communication. A superior way of operating, which could be found internally at the company, seemed crucial to pursue and explore why that method had not been adopted in the Swedish branch. The methods used by the Norwegians appeared to hold potential which could yield results in efficiency for the hybrid meetings in the case study.

1.3 Aim

The paper aims to analyze how hybrid meetings can be utilized efficiently within organisations to allow remote teams to add value. Due to the nature of the case study, the cause of the company experiencing certain difficulties regarding hybrid meetings is to be determined. Ultimately, the report aims to develop a framework which can be implemented within the organisation to solve identified issues.

1.3.1 Research question

1. What constitutes an efficient, value-adding, meeting for a consulting company that operates within the construction industry?

2. Which aspects become essential to consider when conducting efficient meetings in a hybrid setting for a construction consulting company?

3. How should Ramboll employees act to improve the efficiency of all their meetings?

1.4 Delimitation

In order to frame our work some delimitations have been established. The aim and focus of the research are to pursue an improvement of hybrid meetings. Though possible solutions may be applicable to other ways of communication within the organisation, these will not be in focus. Information will solely be gathered from observed meetings, existing literature, interviews and personal, internal, communication.

1.5 Report structure

The first chapter introduces the main topic of this thesis and provides background information on the company where the case study was conducted. Additionally, it presents our aim, research questions and delimitations that have been set to frame the thesis.

The second chapter is a topic overview which presents the necessary information, based on previous research, that enables our data collection process as well as the analysis of our results.

The third chapter presents the chosen method and describes how we collected and used the information that we generated during our work. This chapter also comments on ethical considerations and the reliability of our results and analysis.

The fourth chapter presents the information we gathered in addition to first describing three different meetings we observed to give context to our later findings, then we present our meeting observations which are followed by the results from our interview study.

The fifth chapter is an analysis where we combine the information gathered in the previous chapter with the information presented in the second chapter. The analysis is done so that we first look to considerations that can be done prior to the meeting, then what happens during the meeting, which is naturally followed by considerations at the end and after the meeting is concluded.

The sixth chapter presents our recommendations to Ramboll regarding which changes could be implemented and which information could be considered to improve the workflow.

The seventh chapter presents our conclusions and answers the previously established research questions, as well as discusses future research possibilities.

2
Topic overview

This chapter serves as an introduction and overview of why people meet and how people organise meetings based on literature. Additionally, this chapter presents literature that discusses what an organisation should consider when implementing changes.

2.1 Why do people meet?

The first question of why people meet will be looked at from three aspects, firstly we look to the purpose and goal of meetings within organisations. These two aspects are the foundation of why meetings are needed and what is to be achieved in meetings respectively. Lastly, we look at the social aspect of meetings to consider how meetings may be utilized to fulfil employees' social needs and build chemistry within teams.

2.1.1 Purpose

Adams et al. (2007) concluded that large parts of research on meetings discuss meeting purpose and goals. The two concepts are often regarded as central to achieving efficient meetings and are further researched by authors such as A. Allen et al. (2014). The purpose of a meeting provides reasoning and explanation as to why the meeting in question even should exist in the first place. The study by A. Allen et al. (2014) looked at what the most commonly stated purposes are for meetings by surveying 491 participants. They concluded from their survey that the most common purpose, which was used by 11.6 % of respondents, was to discuss ongoing projects. Secondly, it was to routinely discuss the state of the business in 10.8 % of the meetings and thirdly to discuss quality, policy and compliance.
Both LeBlanc and Nosik (2019) and Goodbrand Skagerlind and Sundström (2022) state how the purpose of the meeting is an essential part of the meeting. The authors go on to explain how the purpose is used to enable an efficient meeting, which is making sure time is well spent and progress is being made. Further, before deciding upon arranging the meeting, the authors state the importance of the invitee to consider if the meeting really is necessary. LeBlanc and Nosik (2019) goes on to explain how having a lacking meeting purpose may lead to meeting inflation. The latter follows the same logic where ineffective meetings demand more meetings to make up for inefficient ones.

Even though the meeting purpose can be explicitly stated it can be difficult to judge if it has been fulfilled or if the stated purpose is even perceived as intended by participants (López-Fresno & Cascón-Pereira, 2022). López-Fresno and Cascón-Pereira (2022) found in their study that the perceived purpose by participants often differs from the stated purpose as presented by management, it often transformed to include a social function as well. Their results show that the three most common purposes, *Coordinate*, *Follow up*, and *Training* are often reformulated by meeting participants and perceived as *Coordinate*, *Follow up*, and *Socialize*. These are also extend to perceived purposes such as *Motivate*, and *Persuade*. This social aspect and its implications will be explored in more depth later. But for now, we can see that the purpose should be included when evaluating meetings to ensure that the stated and perceived purpose align to a satisfactory degree (López-Fresno & Cascón-Pereira, 2022).

2.1.2 Goals

When conducting a meeting for which the manager has created a suitable purpose, the second essential task according to Cothran and Wysocki (2005) is to come up with a meeting goal. A meeting goal is explained to be a tool which can provide motivation or guidance toward a desirable objective. Summarized, a goal is a formulation of where the team or organisation wishes to be in a short or long period of time, or in other words what to achieve during a meeting. When discussing goal setting based on literature, the methodology of S.M.A.R.T can be seen as quite central. Doran et al. (1981) did in their article present an innovative way to set goals which met certain desirable criteria. According to the authors, the acronym S.M.A.R.T stands for S - Specific, M - Measurable, A - Assignable, R - Realistic and T - Time-related. If said criteria can be achieved, the goal would arguably be of an efficient manner and have a higher chance of setting the scene for an efficient meeting.

Looking a bit closer at the different parts of S.M.A.R.T., the different parts provide unique input. Doran et al. (1981) and Cothran and Wysocki (2005) explain how "specific" refers to the goal being adapted to a certain area, focused, not too general but still simple and easily graspable. "Measurable" refers to the goal being of a quantitative or qualitative manner which allows for the organisation or team to control if progress was made in regards to the goal. "Assignable" simply means that the goal should be assignable to any amount of people which are responsible for achieving the goal. "Realistic" refers to the goal being achievable at all and not too ambitious for the circumstances. Finally, "Time-related" stands for the goal being put within a time frame to be reached. Cothran and Wysocki (2005) have to some extent adopted their own explanation for the acronym, but for this report, the S.M.A.R.T framework will refer to its original form created by Doran et al. (1981).

Furthermore, the original authors of the method, Doran et al. (1981) go on to clarify how all criteria do not have to be achieved. They simply explain that the closer a goal is to contain all aspects, the greater the opportunity to receive the benefits of proper goal setting.

Following the subject at hand being meetings, and meetings being a medium of communication where people interact with each other, the fact that psychology plays a large role in investigating how meetings are affected is no surprise. Locke and Latham (2012) began investigating how goal setting affected the drive and motivation of people already in the 1960s. The authors then continued their work, updating their research as time went by. Locke and Latham (2012) discovered how goal setting is challenging but still realistic as well as specifically motivated employees and yielded better performance. Supplying individuals with goals further serves to create motivation to search for new knowledge, which according to Locke and Latham (2012) may be successful or the opposite.

The authors follow up the discussion of goal setting by explaining how feedback is the key moderator when implementing goals. Locke and Latham (2012) claims that self-efficiency and increased motivation only can be contained if the progress can be and is tracked. If feedback is received, the goal is seen as important and complex enough, and employees have been found to increase their performance solely based on psychological reasons.

Previously mentioned research by Locke and Latham (2012) has been taken into account by Mroz et al. (2018) and applied to meeting research. The two topics combined showed how a goal-setting process like the one described by Locke and Latham (2012) contains the possibility to increase meeting success. The authors also suggest that meeting leaders create awareness regarding the goal. Mroz et al. (2018) mentions an additional reason for utilizing sufficient goal setting, which is the possibility for an increased level of engagement among meeting attendees.

2.1.3 Social function

By nature, meetings are complex social interactions between employees in an organisation and more often than not they occur on a daily basis (López-Fresno & Cascón-Pereira, 2022). As mentioned before the perceived purpose of meetings often include a social aspect even though it is not stated. Furthermore, López-Fresno and Cascón-Pereira (2022) recognise the fact that meetings are cultural rituals which consist of group and organisational values. It was also found that when the participants already had an established relationship the perceived purpose tended to favour social aspects. This in turn means that meetings can be regarded as both tools to address the strategic goals of an organisation and used to address the need for group identification and cohesion (López-Fresno & Cascón-Pereira, 2022).

2.2 How do people meet?

This next question of how people meet will provide a context for the hybrid and virtual setting by looking at how digital tools are used. We also look to research that concerns how meetings are conducted from several angles such as the use of agenda, facilitation, and how to create the right work environment.

2.2.1 Digital tools

Geographically spaced out teams who rarely meet physically are subjected to difficulties when it comes to building and maintaining a professional relationship (Saatçi et al., 2020). The use of digital tools is by extension an important aspect to consider when discussing meetings with a virtual dimension. This is especially important when planning a hybrid meeting as the most common digital tools used for meetings (e.g. Zoom, Microsoft Teams, Google Meet) are not designed with the hybrid setting in mind (Saatçi et al., 2020). These tools do not consider how to manage the unbalanced setting of some participants participating virtually at the same time as some participants being co-located. It can be argued that it is a foolish attempt to develop digital tools in such a way that they replicate the experience of participating in an in-person meeting. As such digital tools should focus on fewer, specialized, functions instead (Saatçi et al., 2020). An example of a specialized digital tool is software such as Miro and Mural. These programs classify themselves as online whiteboards and brainstorming platforms and can be implemented in hybrid meetings to equalise the balance between those participating remotely and those on-site by moving everyone to the same digital medium during brainstorming and collaborative sessions.

The question of how to conduct a meeting is a complex issue with many aspects to consider. However, Standaert et al. (2022) provides in their paper a framework that can be used to help decide which type of meeting is appropriate based on what you want to achieve. The framework aims to aid the decision between four types of meetings (audio-, video-conference, telepresence, and face-to-face) based on their cost and communication capabilities. Audio- and video-conference are low-cost options, ranging from using free software to paying software licenses up to a few hundred dollars per year, while a telepresence setup can cost up to several hundred-thousand of dollars (Standaert et al., 2022). Meanwhile, the cost of a face-to-face meeting can vary greatly depending on expenses such as travel and accommodation. Therefore choosing the right type of meeting is vital to not waste resources.

The framework presented by Standaert et al. (2022) firstly looks to answer the question of *Why do you meet?* and secondly, it questions *What capabilities are important?* in relation to what one wants to achieve. And by answering these questions choosing the appropriate type of meeting is easier. Looking at the first question Standaert et al. (2022) provides the four categories of answers as can be seen on the left side in 2.1. Based on this answer one can look for which capabilities are needed and how they correlate with each other as seen by the capabilities on the right side of 2.1 and the connecting lines.

Furthermore, the size of the meeting influence which meeting type is appropriate. As one can assume a larger meeting requires more capabilities to be executed smoothly

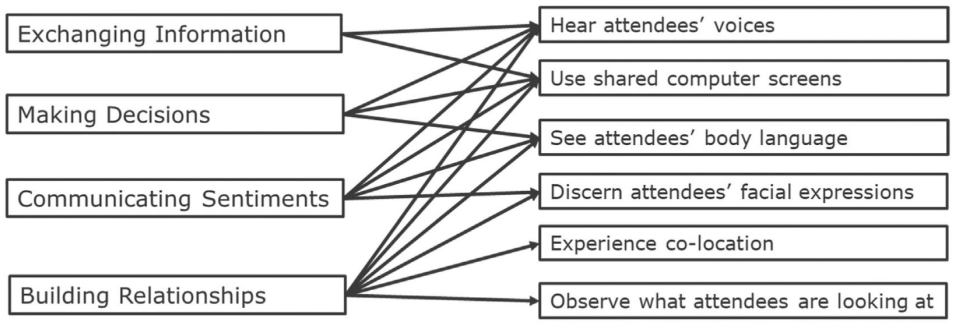

Figure 2.1: Relation between meeting capabilities and meting type (Standaert et al., 2022)

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and efficiently (Standaert et al., 2022). Standaert et al. (2022) goes on to present that limited capabilities also dictate the duration of meetings, for example, a meeting without visual capabilities should not be longer than 1 hour in order to not affect the effectiveness of the meeting. 2.2 is the decision-making framework as presented by Standaert et al. (2022), on the left side the purpose of the meeting takes two routes depending on the size and duration of the meeting to decide on which meeting type is appropriate. Therefore, this framework presents a guide for meeting facilitators when preparing for their meetings.

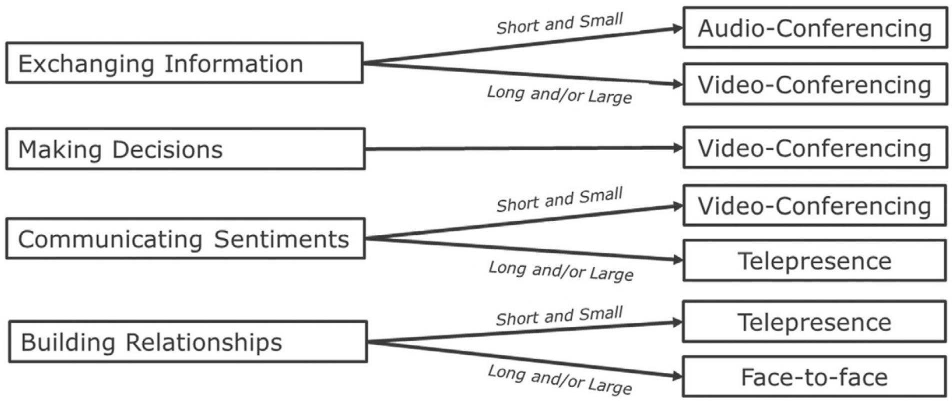

Figure 2.2: The relation between meeting capabilities and meeting type, as well as the impact by meeting size and meeting length (Standaert et al., 2022)

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Lastly, Standaert et al. (2022) comments that when considering hybrid meetings those should be avoided as they are less effective across all meeting objectives. Additionally, there appears to be a correlation between less effectiveness and larger difference in capabilities. To limit this downgrade in effectiveness one solution is to level the playing field by downgrading everyone to the least capable medium (Standaert et al., 2022).

2.2.2 Initiating meetings

Astrom and von Alvensleben (2021) from the company Mural, which provides an online collaboration tool designed for meetings, has provided input on why meeting check-ins are an essential part of the meeting. Furthermore, the authors mention how check-ins are a tool for meeting leaders to establish trust and create transparency. Further, check-ins can be done at certain levels. There is the less ambitious version which can be to ask all participants how they are feeling. This lets everyone know the current emotional status of the attendees. The more ambitious one can be along the lines of presenting random questions which lets everyone get to know each other a bit better, it is argued to fit well when there are new team members present. Astrom and von Alvensleben (2021) also discusses how the check-in can help track if any team members are overworked at an early stage to prevent things such as burnout.

2.2.3 Agenda

One of the most essential parts of a meeting is arguably the agenda according to Romano and Nunamaker (2001). The authors claim that the lack of a written, pre-distributed agenda is a sign of a lack of planning. Further, an agenda might be the most efficient way of ensuring a productive meeting in regard to required preparations. Romano and Nunamaker (2001) have through their research produced some quite interesting data regarding meeting agendas. When surveying 950 managers and professionals, the authors discovered that in 32% of the cases, meetings did not contain an agenda and in almost half of the meetings, no written agenda was presented. On the contrary, the study made the claim that 73% of participants agreed upon agenda being an essential part of a good meeting.

2.2.4 Implications of conducting a hybrid meeting

Managing a hybrid meeting has a lot in common with managing any type of meeting as has been previously presented, but there are also differences. Karin M. and Joseph A. (2022) have compiled several considerations to increase the success rate of a hybrid meeting. Firstly, the authors state that hybrid meetings rely heavily on being the middle or last part of the work instead of the starting point. Participants should be required to finish *pre-work* before the meeting to keep the meeting time at a minimum and should be held accountable for said tasks. Karin M. and Joseph A. (2022) explains how pre-work can be anything from a reading list to completing models and calculations. What the authors are ultimately getting at is that hybrid meetings require more from all in attendance and should therefore utilize pre-work to ease the already difficult conditions.

Moving on to the next obstacle for leaders who host hybrid meetings, Karin M. and Joseph A. (2022) mentions how creating and maintaining engagement among attendees can be handled. The authors also mention the increased difficulty of staying engaged when participating remotely. Firstly, it is argued that good engagement requires work even before the meeting, more specifically in the meeting invitation. There should be an indication of what type of meeting is being held to make sure all participants know what to expect when attending (Karin M. & Joseph A., 2022) (Goodbrand Skagerlind & Sundström, 2022). Karin M. and Joseph A. (2022) also believes the invitation should notify participants regarding which tools are to be used, removing the barrier of lack of knowledge. The mentioned tools could be breakout rooms, whiteboards or polls.

Karin M. and Joseph A. (2022) continues to discuss actions which can be taken during the meeting to increase meeting performance. First and foremost, participants need psychological safety, which has been explained earlier in the report. To create an environment where participants feel safe they provide some examples, for example, a chat facilitator can be appointed for remote participants who find it difficult to speak up to still be able to contribute through the chat function. The authors base the argument on the fact that having resources in the form of people attending a meeting, just not having them contribute due to the fear of speaking or difficulty of speaking simultaneously while using microphones is a loss which affects everyone. To further level the playing field, Karin M. and Joseph A. (2022) suggests that meeting leaders make sure remote attendees are given the opportunity to speak first. The reason is that remote participants, as previously established, are at a disadvantage regarding engagement level and technical barriers, and would therefore benefit from further support.

When the meeting has come to an end, the authors suggest that the meeting group evaluate certain aspects to get the most out of the meeting. To begin with, discussing what went well and what went less well should be done. Secondly, deciding what can be done differently in the next meeting is essential to reach improvement. Finally, the participants should contemplate the meeting's purpose and whether it was correctly formulated. Karin M. and Joseph A. (2022) argues that fulfilling the purpose of the meeting gives meaning to the participants, proving that the time spent working within the meeting was to good use.

Baker and Murphy (2021) have made similar conclusions to Karin M. and Joseph A. (2022) with slight adjustments. Baker and Murphy (2021) emphasized several points which should be considered when conducting virtual or hybrid meetings. The authors argue the importance of only inviting people who really need to participate. The reason is both to spare the time of optional participants and create easier, i.e. less complex, conditions for the meeting, with fewer people. Further, the authors found that roles always should be distributed among participants. For example, a secretary is responsible for taking notes of decisions made and within 24 hours these notes should be sent to everyone who attended. Other roles include facilitating (Miranda & Bostrom, 1999), timekeeper and chat facilitator among others (Karin M. & Joseph A., 2022). Baker and Murphy (2021) also mentions how pre-work and an agenda should be sent out to participants prior to the meeting, allowing time for preparations and increasing the chance of a successful meeting as have already been established. Finally, the authors mention that summarizing what has been established and decided should be done when the meeting is done, as well as following up on the goal which should have been set prior to the meeting commencing.

2.2.5 Psychological safety

An important aspect for people in a leadership position to consider is the perceived psychological safety of employees as it is in human nature to decrease the desire for creativity and innovative behaviour when faced with a threat or when feeling insecure (Chien Chiang & Chin Li, 2022). Psychological safety is defined as

> ”as an individual’s feeling that he/she can show and employ himself/herself without the fear of negative consequences to self-image, status, or career.”

by Khan (1990) in Chien Chiang and Chin Li (2022). In such an environment where psychological safety is achieved, employees are encouraged and willingly participate in questioning what is done, provide feedback, provide new perspectives, and openly discuss mistakes (Grebski & Gajdzik, 2022) (Chien Chiang & Chin Li, 2022)(Constantinides & Quercia, 2022). When it is not achieved employees remain silent and cover up problems which lead to identified problems not being addressed in a timely manner costing the organization resources (Grebski & Gajdzik, 2022). Furthermore, a competitive edge can be gained as a result of an increase in knowledge sharing and a project by Google concluded that psychological safety is the key factor for a high-performing team (Chien Chiang & Chin Li, 2022).

To enable physiological safety within an organization a manager should assume a role where they set the direction of work and accepts, and consider, feedback from employees (Grebski & Gajdzik, 2022). This is, according to Grebski and Gajdzik (2022), in contrast to a traditional manager that strives to always have all the answers, give orders and assess employee performance. Furthermore, an secure environment feels secure, that is to say, predictable and consistent, it is an environment where you have autonomy and control, it is perceived as fair, and an acceptable level of trust is present (Grebski & Gajdzik, 2022). Additionally, Constantinides and Quercia (2022) comments that many visual and nonverbal cues are partly or entirely removed when working in a virtual environment which further hampers the feeling of physiological safety.

2.2.6 Facilitation

As already established it can be argued that role distribution is considered good practice. The role of the facilitator is often held by the leader according to both Miranda and Bostrom (1999) and Goodbrand Skagerlind and Sundström (2022). The facilitator is according to the authors responsible for managing both the process of the meeting as well as the task. Miranda and Bostrom (1999) have through their study researched both process facilitation and content facilitation, both of which have been found important for the success of the meeting. It is explained how process facilitation refers to the task of enabling participants to have an efficient discussion which stays on the topic and lets all participants contribute. Content facilitation focuses on the act of enabling solving a problem, through explanations, resources or planning for example. Goodbrand Skagerlind and Sundström (2022) provides practical examples of setting and enforcing meeting rules (e.g. expected behaviour and how to use the chat function) and feedback to the group if the agenda is not adhered to.

2.2.7 Engagement

The engagement level is influenced and depends on many of the aspects that have been presented in this chapter. As shown previously the responsibility falls on the leader to plan and execute a meeting properly for it to be successful and efficient. These responsibilities include the aspects of setting a meeting goal and purpose, agenda, facilitation etc. However, as pointed out by both Goodbrand Skagerlind and Sundström (2022) and Karin M. and Joseph A. (2022), the engagement, that is to say, an active focus on the meeting and contribution to the meeting, of the participants, are equally important to a successful meeting.

As the section on psychological safety described earlier in this chapter, the perceived comfort of participants in a meeting is what arguably matters the most when it comes to creating engagement. Goodbrand Skagerlind and Sundström (2022) points to several aspects one needs to consider, among these are the perceived relevance of the meeting (Is this meeting aligning with my goals and obligations?) and expected level contribution (Do I have something to contribute to this meeting?). Furthermore, if the leader of a meeting allows non-participating and unengaged participants they set a harmful precedent which can lead to meeting inefficiencies such as participants multitasking (Goodbrand Skagerlind & Sundström, 2022). To combat this, active facilitation, limiting interruptions, distractions, multitasking, conflicts, and technological issues is recommended. In a practical sense, this can be to establish rules and expected behaviour before the meeting starts (e.g. providing comments and questions through text instead of verbally), encouraging constructive feedback, having a calm work environment, and testing technological equipment before the meeting starts (Goodbrand Skagerlind & Sundström, 2022).

A hybrid setting has been found to create problems when it comes to equal engagement levels between participants as a result of having multiple ways of communicating with other participants (Goodbrand Skagerlind & Sundström, 2022). Broadly speaking co-located participants have a communication advantage over remote participants since their communication is not hindered by the available digital tools or technological problems. This can ultimately lead to subgroups where on-site personnel form one group with those they interact more with and remote participants form another separate group with a stronger relationship between them. Furthermore, these subgroups create difficulties with situational awareness, interpreting intentions, and information sharing (Goodbrand Skagerlind & Sundström, 2022).

2.3 How frequently do people meet?

This section looks at meeting frequency and provides some comments on the project-based nature that is the construction industry in which our case study exists. Finally, we consider the effects that frequent hybrid and virtual meetings have on us as humans.

2.3.1 Amount of meetings

Creating value within companies requires communication of different sorts such as e-mails, one-on-one conversations and meetings to name a few. As many may experience on a daily basis, employees across different industries spend a significant amount of time in meetings every week. According to Mroz et al. (2018) employees in the united states spend approximately 6 hours in meetings every week with managers spending a staggering 23 hours on average. When the pandemic hit, meeting statistics were influenced as well. Laker et al. (2022) conducted research post-Covid-19 which showed an increase in the number of meetings held by 13.5%. The general trend of meeting frequency found within literature can be summed up, according to Rogelberg et al. (2007), as increasing over time. Furthermore, meeting frequency can, as reported by the authors, also be seen as greater within larger corporations.

Diving deeper into the article produced by Laker et al. (2022), the frequency in which employees attend meetings is studied and the impacts are mapped. As previously mentioned, the number of meetings increased by 13.5% but noteworthy also had their time reduced by 20%, resulting in an average decrease of total time spent in meetings by 11.5%. Summarized, the industry received a greater amount of shorter meetings. The authors had the hypothesis that employees would experience positive impacts if companies decided upon implementing meeting-free days. To clarify the representation of a meeting-free day, the authors considered a reduction of 20% to be one day without meetings, 40% to be two days without meetings and so on. Laker et al. (2022) further enlightens how they discovered that 92% of employees believe meetings to be costly and unproductive. The same employees who themselves make up the meetings.

The study conducted by Laker et al. (2022) consisted of 76 companies and took place over a period of 14 months. The results showed benefits in all considered areas which were Autonomy, Communication, Cooperation, Engagement, Micromanaging, Productivity, Satisfaction and Stress. Having one meeting-free day resulted in between 32 and 78% improvement in the different areas, and two days resulted in even more improvements across all areas. Further, Laker et al. (2022) argued how the result stagnated to some degree when applying 60 or 80% fewer meetings, and how the improvements began to decrease in all areas when fully removing meetings.

2.3.2 Project based industry

Considering the fact that the construction industry is one of a project-based nature (Taylor & Levitt, 2004), the question arises regarding how it might impact meetings. The authors, Adams et al. (2007), begin by stating how meetings were an issue already in the early 2000s. The meeting frequency trend could already be seen increasing and employees considered meetings to be a waste of time to a large extent. Implications brought to the table due to everyday operations being in the forms of projects are a large factor causing the heavy meeting load, explains Adams et al. (2007). A study brought to light in the study shows statistics as to why the form of communication to some extent is regarded as a time waster. The results according to Adams et al. (2007) explained how 39% of decisions are made once the meeting is over and 80% of discussions are regarding matters on which participants already agree. Furthermore, the authors go on to explain how certain measures can be taken to create more efficient meetings and reduce time wasted. Among these measures are a clearly established goal and purpose of the meeting (Adams et al., 2007).

2.3.3 Zoom fatigue

The explosive increase in virtual meetings following COVID-19 gave rise to a new phenomenon often called *Virtual Meeting Fatigue* or *Zoom Fatigue* where after only a few hours, not to mention after the majority of a whole day you start to feel exhausted and drained of energy (Epstein, 2020; Shockley et al., 2021; Standaert et al., 2022). Shockley et al. (2021) comments on the fact that this feeling of exhaustion does not directly correlate to time spent in meetings since people spend on average 11.5 % less time in meetings since the pandemic, identified both in their paper and previously in this thesis by Laker et al. (2022).

Interestingly Epstein (2020) provides a number of biological explanations behind this phenomenon. The brain's ability to detect slight delays between a speaker's actions, e.g. mouth and body movement, and what is said requires more energy and focus since it subconsciously is picked up as unnatural. Other distracting parts of a virtual meeting, for example, when typing or reading in the chat or timing when it is appropriate to un-mute for questions or comments, require additional focus and energy all while paying attention to what is said (Epstein, 2020). Furthermore, a virtual setting can remove, or at the very least hinder, the ability to take in verbal and nonverbal cues. When looking at several people in tiny squares, some with cameras turned off, some cameras with poor quality and some with poor audio quality, the ability to comprehend the tone of voice, hand gestures, and body language is either removed or limited.

The research done by Shockley et al. (2021) focuses on how cameras being turned on or off affects *Zoom Fatigue*. More specifically their study takes the perspective of *Zoom Fatigue* being rooted in self-presentation. Self-presentation, according to Shockley et al. (2021), is the idea that people have an innate desire to be viewed in a favourable light. This desire is present in social interactions and requires people to manage how they express themselves which is a demanding task that leads to fatigue. Shockley et al. (2021) provides several effects of having the camera turned on during meetings, among these are a greater sensation of being observed by others and needing to manage how one expresses and presents oneself. Similarly, seeing your own video image can also be a source of self-evaluation and divert focus away from the meeting. Lastly, Shockley et al. (2021) comments on the fact that participants in virtual meetings hold their gaze for longer periods of time than in face-to-face interactions further leading to the feeling of being observed. This last effect is also commented on by Epstein (2020) as a product of participants holding their gaze for longer periods in order to express that they are paying attention.

Shockley et al. (2021) continues to comment on the complexity of nonverbal cues in a virtual setting. Specifically, when a video of other participants is present in a meeting the amount of nonverbal communication is increased. However, the many nuances of nonverbal communication are lost or risk being misinterpreted through virtual meeting tools and it leads to an increased cognitive load. These assumptions are confirmed by Shockley et al. (2021) and Constantinides and Quercia (2022). The study also found that this fatigue affects participants' engagement levels and that women and new employees of a company were affected to a greater extent.

2.4 Implementing change

Since one of this thesis's objectives is to provide suggestions for possible improvements that can be made within the organisation one needs to consider what is needed to implement change. Through this, we acknowledge the fact that simply stating what needs to be changed is not enough and that this thesis alone cannot revolutionise how meetings are conducted in an established organisation.

Change management handles the process of implementing changes into an already existing organization, and the difficulties that come with it. Bovey and Hede (2001) looked into five organisations and surveyed 615 employees to investigate what the most common issues are when implementing change. The research resulted in five major defence mechanisms among employees which all positively correlated with resistance to change. The authors go on to explain how employee resistance is found to be directly connected to the success rate of organisational change. The conclusions drawn by the report showed how the human factors involved in organisational change are of utmost importance. The five factors of resistance found to be central were projection, acting out, isolation of affect, dissociation and denial. Bovey and Hede (2001) shortly explained the mentioned defence mechanisms like the following.

Denial - The employee refuses to acknowledge certain obvious parts of reality as a coping mechanism to deal with stress
Dissociation - Employees deal with internal or external stress by de-integrating from normal functions of consciousness.

Isolation of effect - The employee separates ideas from the feeling originally associated with them to deal with stress.
Projection - Employees deal with stress by projecting their own shortcomings onto other individuals.
Acting out - An employee will behave in a socially non-acceptable way to express themselves rather than using reflections, often based on earlier trauma or unpleasant experiences.

Lauer et al. (2010) have through their book on change management explained how knowledge of superior practice might not be enough to induce change in an individual. Further, the organisation need to secure that the factors are fulfilled to successfully implement change through individuals. These factors are, *Motivation, Measurement and Rewards for performance.* The authors discuss how acquiring knowledge and going through a learning process can be different things. Through implementing the newly found knowledge and being able to reflect upon it, the individual can change their behaviour and increase performance. Lauer et al. (2010) concludes that much like meetings, it is essential to support change with a thought-out purpose, goal and road map. Finally, organisations are found to require change end development to stay in business in a market which is competitive.

3
Methods

To enable the pursuit of our aim, certain data had to be collected. Data could be used to explain both the issue as well as to find a possible solution. The method which was utilized to achieve the collection of data were interviews with employees, observations of internal as well as external meetings and a thorough literature review of relevant publications.

3.1 General approach

The aforementioned methods used to generate data in this thesis are by nature based on people's experiences, recollections, and understanding of their surroundings. This data is then summarized and interpreted in order to create a new understanding that relates to our specific context at Ramboll, therefore a qualitative approach is used (Bryman, 2016). There are and have been, many different ways to define qualitative research and the research community have still not agreed on a consensus as described by Bryman (2016). However, a general definition of qualitative research can be defined as

> "*any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification*"

by Strauss and Corbin (1990, p.17) in Hoepfl et al. (1997) or as Aspers and Corte (2019) puts it

> "*We define qualitative research as an iterative process in which improved understanding to the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied*"

Hoepfl et al. (1997) continues to highlight several features of qualitative research, among these features we find the use of an emergent design where we are able to adapt the methods used during the project and that qualitative research is of an interpretative character where we discover and interpret peoples experiences. Additionally, qualitative research is context specific, that is to say, we use the natural setting of Ramboll to source our data where we, the authors, act as instruments to collect data through our own observations.

To expand on the general approach used to answer our aim we once again look to Bryman (2016) who presents six common steps used in qualitative research. These are:

1. General research questions
2. Selection of relevant locations and survey subjects
3. Data collection
4. Interpretation of data
5. Conceptual and theoretical work
6. Report on results and conclusions

Additionally, step five consists of two sub-steps, 5a. Specification of research questions and 5b. Collection of additional data. These steps illustrate the emergent and iterative nature of qualitative research. The aim and research questions themselves have been through several iterations as our understanding of the situation grew. The process of collecting, and interpreting. and conceptualizing data will be described in more detail later in this chapter, however, this process was also an iterative process throughout the project.

3.1.1 Literature review

In large parts, the topic overview chapter consists of our literature review. This literature review serves multiple purposes in our thesis, the main purpose is to provide the necessary knowledge and context that enables us to conduct our analysis. This is done by presenting theories, data, and results from previous work by other authors, identifying any knowledge gaps and how our work fits into these gaps, and presenting contradicting conclusions that exist within the literature (Booth et al., 2021; Bryman, 2016). As can be seen in the literature review the existing literature on the topic of hybrid meetings, and meetings in general, already comments on how to prepare, conduct, and follow up meetings in a hybrid setting. This paper will combine the findings of previous research and apply them to this case study, its specific context, and the data generated in the case.

The literature review has been an ongoing and iterative process, the initial time with this project was spent on reviewing literature. This first phase established an initial understanding of the topic of interest and allowed us to formulate our research questions and research design (Bryman, 2016). This is to say that we were able to identify how our work fits into the context of existing work, which methods we used and the data that those methods intended to generate to answer our aim. A second phase of a focused literature review was conducted after we had collected and summarized our results. This was done with the purpose of gathering deeper and more specific knowledge to enable the analysis. However, literature was reviewed throughout the project when necessary to answer specific questions and reflections that occurred when data was gathered (Bryman, 2016).

To find appropriate literature we used the databases Google Scholar and Chalmers

Library. The selection of sources was based on relevance, trustworthiness, and publication date. To sort for relevance the keywords *Meetings*, *Hybrid*, *Virtual*, *Zoom fatigue*, *Physiological safety*, *Change management*, *Project*, *Role distribution*, *Goal*, *Purpose*, *Meeting tools*. A source was considered trustworthy based on a combination of criteria, namely if it was peer-reviewed, the number of citations, and obvious or stated biases. The publication date becomes relevant as an effect of the Covid pandemic. Covid is a clear demarcation in both the literature and people's behaviour and their experience. Overnight it became wildly acceptable to conduct meetings from outside of the office in a virtual space which for most companies was only an occasional event before the restrictions. And with the return to the office hybrid meetings become, and still are, a common occurrence. This created a major cultural shift and a change to the earlier established workflow. In the literature, this becomes obvious and is assumed to influence both the assumptions made by the researchers and the how, and what kind of data that was generated. Thereby, we have also considered this aspect when conducting the literature review.

3.1.2 Interview study

As commonly used in qualitative research, semi-structured interviews were conducted in this case study. These interviews utilized an interview guide with predetermined themes and questions to help us, the interviewers, make sure that the sought-after data was generated in every interview. The pre-established questions were designed to be topic-initiating and allow room for spontaneous questions to be asked (Rapley, 2001),(Bryman, 2016). These follow-up questions enabled us to guide the interviewee through the interview topics and the possibility of going into detail when necessary or interesting comments appeared (Hoepfl et al., 1997),(Bryman, 2016). This method puts the focus on the interviewees' own understanding, perspective, and past experience. Furthermore, the interview guide enabled comparability between interviews as each interview covered the same topics and questions(Bryman, 2016).

The interview guide was slightly modified as interviews were conducted to include new questions that had shown to be useful and provide detailed responses, however, the same themes were kept the same throughout all interviews. The interview guide can be seen in Appendix A. Before, during, and after the interviews several aspects were considered that Bryman (2016) points out, firstly, we considered what we had learnt from the literature review to develop the interview guide so that we could ask informed and relevant follow-up questions that were clear and understandable. Moreover, each interview began with informing the interviewee of what we were doing, asking for permission to record, and what was going to happen. We also informed the interviewee that their answers would be anonymous for ethical reasons which will be expanded on later in this chapter. During the interviews, we were mindful to give the interviewee the time and space necessary to say what they want to say without interruption, respond in a neutral manner to not influence answers, and listen and remember what is said so that already answered questions are not repeated unnecessarily and appropriate follow-up questions can be asked (Bryman, 2016).

After an interview had been conducted it was transcribed so that the collected data could be interpreted and conceptualized at a later date when data from all interviews had been gathered. The generated data is analyzed in accordance with our analysis strategy which is explained later in this chapter.

3.1.3 Approaching interviewees

For our specific context we were able to approach possible interviewees through internal digital channels in the company (email and teams channel), recommendations from our supervisor at the company and recommendations by those that we interviewed, and personal communication interaction at the office. We considered suitable interviewees those employees that had spent considerable time at the company, more then 3 years or experience in a similar organizations, especially those that had been with the company since before Covid. We also pursued to interview employees at different organisational positions. This enables us to gather input from a diverse set of perspectives from experienced employees who could provide real world examples for us to compare with the gathered theoretical framework. Table 3.1 present the 10 respondents and their title.

Table 3.1: Each respondents role at the company, the respondents originate from several different teams and offices

Role at the company	Respondent
Team leader	Interviewee 1
Project manager	Interviewee 2
Market manager	Interviewee 3
Team leader	Interviewee 4
Senior Consultant	Interviewee 5
Head of department	Interviewee 6
Team leader	Interviewee 7
Department manager	Interviewee 8
Team leader	Interviewee 9
Consultant	Interviewee 10

3.1.4 Observation study

The observation study consisted of participating in meetings that were held both internally at the company and with external partners. The purpose of conducting the observation study is to enable us to create our own, deeper, understanding through observation of how Ramboll conduct their meetings so that we can better understand their situation (Hoepfl et al., 1997). During this study, we openly stated our role and purpose with our participation to those we encountered in the meeting. In each observed meeting, we introduce ourselves and our research which includes a reassurance that we do not consider what is said by who during the meeting and that we are only interested in how meetings are executed. The transparent approach showed itself to be practical as we found employees to be open to the idea of us participating and evaluating their work.

All the meetings we observed had a virtual component with them being either a hybrid or fully virtual meeting. This allowed us to participate virtually through their meeting software serving two functions. Firstly we were able to increase the volume of observed meetings by simply being able to join from anywhere, secondly, we were able to turn off our camera and mute our microphone to limit distractions and to limit the potential impact of feeling judged by us as observers. By doing this we could observe and focus on the virtual aspect in both virtual and hybrid meetings. This limited presence aimed to decrease the likelihood of behavioural change of those participating in the meeting (Bryman, 2016). During the meetings notes were written down using an observation guide which helped in gathering comparable data from all the observed meetings. After every meeting, we took some time to discuss what we had observed and expanded and clarified the notes so that we later had enough information to return to at a later date as recommended by Bryman (2016). The observation study resulted in observing 16 different meetings in total, 6 of those meetings being conducted as hybrid meetings. Based on these results we could apply our analysis strategy which is described in detail in the following section.

3.2 Analysis strategy

Analysis of qualitative data requires creativity since the collected raw data need to be summarized, categorized, examined in a logical and holistic fashion and finally communicated to the reader (Hoepfl et al., 1997). The data from the literature, interviews, and observation has been categorised by identifying several themes and concepts. These categories have then been re-examined and modified during the project in order to understand how they are connected and affect each other. This is not only done so that the bigger picture can be understood but also to develop new understanding. In this way a conceptual model of the problem that exists at the company can be developed that approximates the reality of the situation as precisely as possible (Hoepfl et al., 1997). These themes were developed by categorising data into manageable topics that focus on one single aspect at a time. To exemplify this we can look to the question of *Why do people meet?* which we saw in the topic overview. This question is divided into purpose, goal, and social function and allows for a focused discussion and analysis of the collected data and the result and analysis chapter is divided in the same way.

Figure 3.1 summarises our methods and structure of the thesis. Firstly, the Literature study provided the foundational knowledge necessary for both the observation and interview study. Based on the results from these two methods, in combination with the literature study, the analysis was conducted. Lastly, the proposals could be developed based on our analysis.

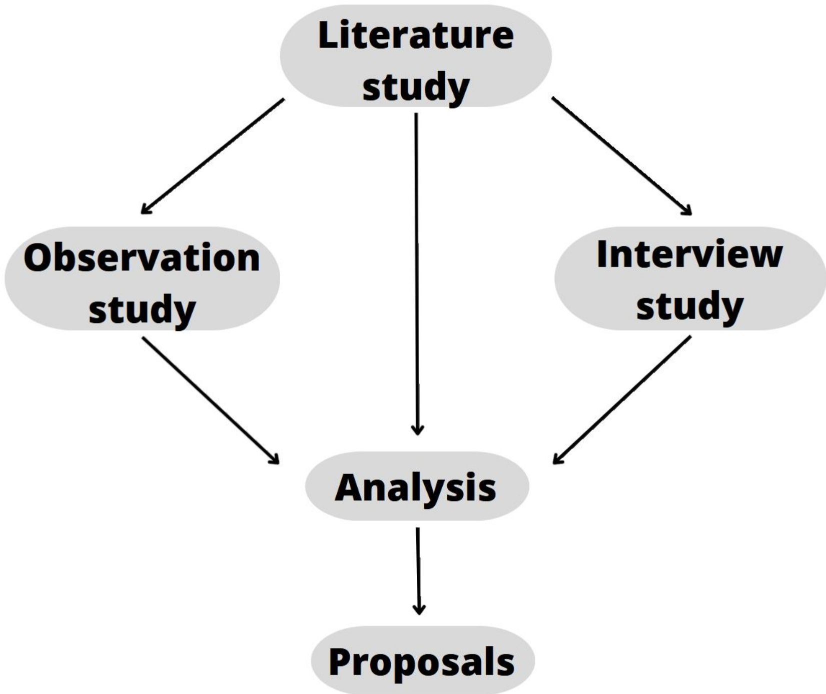

Figure 3.1: Illustration showing the correlation between the chosen methods

3.3 Personal communication

Inevitably, when working on this project we have had the opportunity to communicate with numerous employees at the company outside of official interview and observation sessions who showed interest in the topic. These unofficial sessions occurred first and foremost as we spent time at the local office and interacted with employees throughout the day. Additionally, these occurred during supervision meetings with our supervisors at Ramboll, during talks with meeting leaders when discussing our attendance for future meetings, and with employees shortly before or after observation sessions.

These sessions provided us with feedback on our line of thought and provided us input on their reasoning and their line of thinking. Early in our project we identified that this was happening and took it into consideration since it affects both how we view our data and could affect the behaviour of the employees. Our first action was to consider these statements carefully as they were not communicated to us in an official setting and we aimed to use this information to explore new avenues of research and to explore different perspectives, and not as absolute truth or official statements. Secondly, we intentionally decided to not share any of our findings until we had completed all interviews, and observations and started analysing our data. This was done as those we often interacted with were the very same people we studied during the interview and observation sessions and we aimed to influence their behaviour as little as possible so as to not skew our data (Bryman, 2016).

3.4 Ethical concerns

Researchers have to consider several ethical concerns when doing their work. This is of special importance when conducting research in direct contact with people that could either directly or indirectly be harmed in some way, be it physically, physiologically or in some other way to their image (Bryman, 2016). Since our work takes a critical position on how employees of a specific company, with a focus on a specific department, behave when they work our main concern is that no observed behaviour or statement can be traced back to a single person for reparations or in any way negatively impact their reputation or career. Additionally, a non-disclosure agreement has been signed to enable us to participate in meetings where confidential information is discussed. The non-disclosure agreement therefore enables us to present information of how meetings are conducted but we do not consider what is said and by who.

Concerning the ethical concerns that were considered during this project, we first and foremost were transparent with our purpose of conducting our interviews and observations and clearly stated that participating in the study is voluntary. Secondly, we have strived to keep the confidentiality of participants by anonymizing names and other information that can link an individual to a statement, behaviour, or action. Thirdly, all information that has been collected is to only be used for the purpose of this study (Bryman, 2016). Lastly, our supervisor at the Ramboll has had the opportunity to approve this report before publication to ensure that company-specific information is in line with both the above-stated ethical considerations and the signed non-disclosure agreement.

3.5 Evaluating our choice of method

Concerning the credibility and reliability of our results we have in this chapter described our methods and our internal logic of how we have collected and managed the data we generated. Additionally, as mentioned in the section above our company supervisor has had the opportunity to read our thesis for approval in addition to continually getting updates on our work throughout the project (Bryman, 2016). Furthermore, we have had three separate opportunities to present our work to employees at Ramboll and listened to their feedback. By reconnecting our results and interpretation of said results back to our respondents and observation subjects we allow for *response validation* as described by Bryman (2016, P. 467). This ensures both parties that what has been said and heard has been correctly understood. The three main methods of data generation, literature, interview, and observations study, allow for *triangulation* which is also recommended by Bryman (2016, P. 468).

The transferability and confirmability of our results do not make as strong a case as we can make for our reliability and credibility. The nature of this case study, focusing on a single department within a single company and looking at a subjective topic where the personal experience and interpretation of that experience heavily influence our data, it is difficult to say with any degree of certainty that our results are transferable to other cases (Bryman, 2016). We can however say that our study gives a deep insight into our specific context. Replicating our study, with the same methods, could produce the same results however it could just as likely also produce completely different results if done at another time, with different respondents or done by different authors.

4
Results

This chapter presents the information generated from the observation and interview study. The observation study initially presents three of the meetings we observed in detail. Secondly, fourteen aspects affecting meetings, examined in the observation study, are presented. Then, a deep dive into a series of meetings is presented. This meeting series followed the same group as new leadership were established and reformed how meetings were held. Lastly, the interview study is presented where some key themes and relevant answers will be presented to enable the later analysis to be structured.

4.1 Meeting structure

This section will describe three of the meetings we observed ranging from very well-executed to not so well executed. These are intended to exemplify and contextualise different behaviours and situations that we observed and will later be used throughout the report. These are not intended to pin blame on any specific participant of our study or to start a witch hunt since a majority of the observations, both bad and good, can be seen in other meetings.

4.1.1 Meeting F

This was a fully virtual, external, meeting involving 18 participants with a planned duration of 2 hours. This meeting was conducted by the Norwegian colleagues that were mentioned in the introduction. We first looked at the information provided with the meeting invitation. Firstly, it included a list of participants and their assigned pre-work. Secondly, an agenda for each talking point, which participant was responsible to present information or lead the discussion, and time allocation in 5-minute increments. Thirdly, role delegation is included (Leader, Facilitator, secretary and technical support). Fourthly, it included a suitable purpose that is supported by the agenda and 5 goals that follow the S.M.A.R.T framework. Lastly, it also included a framework for the eventual evaluation.

This meeting started with an introduction, stating the purpose and goals, and introducing the agenda, from the facilitator who then used to attendance list to check-in with each participant one at a time. This included asking each participant if they had done their assigned pre-work by asking if they were fully, partly, or not prepared. These responses were noted down, however, they were not commented on any further if they reported that they had not done all their preparations. The first half of the meeting was focused on informing, this was organised such as each item on the agenda had a responsible person and when applicable which project document that was relevant. This responsible participant would then share their screen and present the information. During this first half, the allocated time is adhered to and when participants are done presenting the information they quickly switch between presenters without any delays longer than a minute. Additionally, during this first half people are discouraged to start any discussions and in a couple of instances when they do start the facilitator is quick to remind them to note down their comments for the later half since that is the time allocated for discussions. The first half is concluded by a 10-minute break and the facilitator reminds people what the first discussion point is after the break and encourages people to have their cameras on when they return.

The discussions after the break are characterised by three things. Firstly, they are connected to a specific goal. Secondly, they are based on, and rely on, the information presented during the first half of the meeting. Lastly, they aim to be conducted without a shared screen so that each individual can take a larger presence on their screens, only sharing the screen when necessary, for example when looking at a model or map. During these discussions, the facilitator actively steers the conversation so that they don't go off topic and remind participants of the time. Furthermore, the secretary is noting down decisions made and short summaries of what has been discussed. One participant left early with the explanation that they had nothing to contribute to the coming discussions since all their areas of responsibilities had been discussed already. The last item they discussed needed more time to not stress through it and the evaluation of the meeting, the facilitator interrupted the meeting to bring this up and it was decided to extend the meeting by 20 minutes so they could complete all the items on the agenda.

The meeting is concluded by going through each goal and marking down if they had succeeded or not, in this case, all goals were achieved. They also looked through the notes that the secretary had made and participants had the opportunity to comment and change these which happened one one of the decisions from this meeting. Finally, they evaluated the meeting by simply noting down what had gone well, what could improve, and an overall score on a scale of 1 to 6.

4.1.2 Meeting G

This is a reoccurring internal, hybrid, meeting that was allocated 3 hours and involved 14 participants of which 4 of them participated remotely. The meeting invitation was sparse, it included an agenda containing four main parts, the first three parts were focused on information sharing and discussion of an evaluation done in a previous project and lastly a summary. Additionally, it is stated that the meeting is intended to be a hybrid meeting and those that can participate should do so on-site. We, the authors, are able to participate on-site during this meeting and therefore these observations are made from the perspective of being present in the on-site meeting room.

The meeting is introduced by the facilitator and the agenda is presented to the group, then a round of check-in begins. The check-in consists of the prompt *What is on your mind right now?* and each participant has to opportunity to answer it. The facilitator directs the question to one person at a time and starts with these that are participating remotely. The participants share information both on how their work is doing and personal matters. In the meeting, they also have a secretary that takes notes during the meetings.

Each participant in the meeting room has their own laptop in front of them and is encouraged to have their camera on so that the remote participants can see all participants since they did not have a central camera that showed to the whole room. From our observations, we could not tell if all the participants had their cameras on during the meeting, our best estimation is that four or five of the participants had their cameras on for a majority of the meeting. After approximately 30 minutes the facilitator is done with their first items on the agenda and the other participants each take their turn to speak and inform the others about their areas of responsibility. The role of the timekeeper is delegated to one of the participants and each participant is allotted 7 minutes to speak. To note here is that some participants barely use half of their allotted time while other participants use more than the allotted time. Other participants are free to interrupt during this information-sharing session and frequent discussions occur which causes these time overruns.

Indications of multitasking can be observed in several cases, throughout the meeting we observed several instances of people opening different applications on their laptops and in one instance a participant used their phone for approximately 5 minutes while other people were speaking.

The latter half of the meeting starts with a discussion in pairs of a previously done evaluation of a project. After they had discussed in pairs for approximately 30 minutes they reconvene together. The discussions in pairs were focused on different parts of the evaluation and they now informed each other on what they had discussed in their respective pairs. They had a set time to be back after the discussion in pairs however, a couple of the pairs, one remote and one on-site who had left the meeting room, were late to return. During this time when we were waiting for everybody to return a discussion broke out between two of the pairs in the meeting room. During this short discussion, they commented on how they were getting tired and that a 3-hour meeting is thought which was now soon finished. To summarise the meeting the facilitator gave everyone the opportunity to speak one at a time if they had any questions or comments.

4.1.3 Pilot meeting H

This is a weekly team meeting that was fully virtual and involved 7 participants and was planned to elapse over 55 minutes. In the meeting invitation, we can see both a meeting purpose and a goal. The purpose is *The purpose of the meeting is to share information and to solve tasks in an efficient way*, meanwhile the goals are phrased as *The goal is that, through this way of working, we enable good progress in the assignment.* The invitation also includes meeting guidelines, which we will comment on later in this chapter when looking at the pilot meeting series, and it includes the agenda. The agenda consists of a check-in, a short presentation of information, a discussion and decisions on prioritised tasks and ending with a summary and a meeting evaluation.

At the start of the meeting, only five participants are present, this is explained to be a result of an upcoming deadline by the facilitator who at the same time acknowledges that many may feel stressed and therefore ask people to comment during the check-in if they need any additional resources or support. A discussion occurs after the check-in which takes priority over the set agenda and delays the information-sharing part with approximately 10 minutes. There are two late participants, one who arrives 10 minutes late and another who first arrives after 20 minutes. However, the participant who arrives 20 minutes late seems to have trouble connecting to the call and disappears and reconnects a couple of times. After 35 minutes of the meeting have elapsed they have a stable connection and ask the question of *Sorry, was there anything important that I missed when I was gone? Maybe some notes I can look at?*. This was met with no proper response, the facilitator very quickly mentions a couple of the topics they had discussed but nothing else. To not is that during this meeting there is no secretary that has recorded any notes or decisions made which makes it extremely difficult for this late arrival to catch up on what they have missed. During the meeting, we also observed an instance of a participant using the *hand raise* function in Microsoft Teams without any success. After several minutes without acknowledgement, they instead interrupted a discussion to add their comment. The meeting ended with a short meeting evaluation.

4.2 Time spent in meetings

In an all-hands meeting in the departments we worked with, the leader of the meeting organized the check-in so that all participants answered our question of how many hours they spend in meetings every week when presenting themselves. As can be seen in table 4.1 the average time is just over 23 hours, where some more experienced and senior employees spend approximately 30 hours each week in meetings.

Table 4.1: Estimated time spent in meetings out of a 40h work week

Respondent	Title	Hours spent in meetings every week
Respondent 1	Project engineer	15
Respondent 2	Head of department	30
Respondent 3	Multi project manager	30
Respondent 4	Senior consultant	20
Respondent 5	Team leader	32
Respondent 6	Team leader	15
Respondent 7	Team Leader	22,5
Respondent 8	Senior Team Leader	22,5
Respondent 9	Consultant	15
Respondent 10	Intern	12,5
Respondent 11	Team Leader	22,5
Respondent 12	Team Leader	30
Respondent 13	Senior Consultant	20
Respondent 14	Project Manager	35
Respondent 15	Team Leader	12,5
Respondent 16	Market Manager	37,5
Respondent 17	Team Leader	30
Respondent 18	Project Manager	25
Respondent 19	Project manager	30
Respondent 20	Project Engineer	17,5
Average		23,725

4.3 Meeting observations

The observation study consists of 16 observed meetings, of these 6 were hybrid and 10 were virtual meetings. Table 4.2 and 4.3 provide an overview of the type of meeting, the number and method of participation, the use of cameras, and time allocation and use. The following sections will provide examples and highlight events and behaviour made during the observation study.

4.3.1 Leadership

All the meetings we observed had a clearly designated leader who was responsible for facilitating discussions and that the agenda was followed. In most cases (14), this person created the meeting in the software and sent out the invitation. However, in two (2) cases someone other than this person facilitated the meeting and this was made clear in the agenda that was sent out with the invitation. In five (5) of the meetings, additional roles were delegated by the leader to other participants e.g. someone taking notes or keeping time which we can see in both *meeting F & G*. From our observations, we judged that in three (3) cases the use of protocol was sufficient for someone not participating in the meeting to understand what had been discussed and which decisions had been made where the best example of this could

Table 4.2: Meeting observation

	Type of meeting	**Internal/ External**	**Participants**
Meeting A	Hybrid	Internal	8
Pilot Meeting A	Virtual	Internal	10
Meeting B	Hybrid	Internal	10
Pilot Meeting B	Virtual	Internal	6
Meeting C	Virtual	External	10
Meeting D	Hybrid	Internal	16
Meeting E	Virtual	Internal	4
Pilot Meeting C	Virtual	Internal	7
Meeting F	Virtual	External	18
Meeting G	Hybrid	Internal	14
Meeting H	Hybrid	External	18
Pilot meeting D	Hybrid	Internal	9
Pilot meeting E	Virtual	Internal	8
Pilot meeting F	Virtual	Internal	7
Pilot meeting G	Virtual	Internal	9
Pilot meeting H	Virtual	Internal	7
	Participants, remote	**Participants, on-site**	**Cameras, remote**
Meeting A	3	2+3	1
Pilot Meeting A	10	-	3
Meeting B	2	8	0
Pilot Meeting B	6	-	4
Meeting C	10	-	8
Meeting D	8	8	2
Meeting E	4	-	4
Pilot Meeting C	7	-	7
Meeting F	19	-	7
Meeting G	4	10	2
Meeting H	13	5	2
Pilot meeting D	7	2	7
Pilot meeting E	8	-	8
Pilot meeting F	7	-	7
Pilot meeting G	9	-	9
Pilot meeting H	7	-	6

be seen in *meeting F*.

It was rare (4) to see participants interrupting each other during our observations and in a majority (12) of the meetings we could observe that the leader of the meeting delegated the word and actively facilitated the discussions. However, we also observed some (4) cases where a message in the chat function was not addressed for more than five minutes. As an example, in one case the one that asked the question

Table 4.3: Meeting observation, cont

	Camera, on-site	**% of remote participants using cameras for the majority of the meeting**	
Meeting A	Yes	33%	
Pilot Meeting A	-	30%	
Meeting B	No	0%	
Pilot Meeting B	-	67%	
Meeting C	-	80%	
Meeting D	Yes	25%	
Meeting E	-	100%	
Pilot Meeting C	-	100%	
Meeting F	-	37%	
Meeting G	No	50%	
Meeting H	Yes	15%	
Pilot meeting D	Yes	100%	
Pilot meeting E	-	100%	
Pilot meeting F	-	100%	
Pilot meeting G	-	100%	
Pilot meeting H	-	86%	

	Allocated time (Min)	**Used time (Min)**	**% of allocated time used**
Meeting A	30	30	100%
Pilot Meeting A	90	90	100%
Meeting B	60	60	100%
Pilot Meeting B	90	75	83%
Meeting C	90	60	67%
Meeting D	90	90	100%
Meeting E	30	60	200%
Pilot Meeting C	60	60	100%
Meeting F	120	145	121%
Meeting G	180	170	94%
Meeting H	180	135	75%
Pilot meeting D	60	50	83%
Pilot meeting E	50	58	116%
Pilot meeting F	60	60	100%
Pilot meeting G	50	50	100%
Pilot meeting H	55	40	73%

had to interrupt the discussion and in another case, the message was not addressed at all. Another similar example is described in *Pilot meeting H*. Out of the time that was allocated to the 16 meetings we observed that 95.21% of the time was used, some exceeding the time set for the meeting but most ending 5-10 minutes early.

Continuing on the topic of meeting time, the observations showed how meetings in some (2) cases tend to speed up toward the end when the leader realizes that the allocated meeting time is almost up. In these two cases, the leader verbally stated that the time is running out and that they had to speed things up. In total, it was only three meetings that actually used more than the allocated time. One example of this is *meeting F* where the need for more time was acknowledged and adjusted accordingly. Furthermore, in a few cases (3) the leader interrupted discussions that no longer discussed points in the agenda or topics not related to work. It was more common for the leader to not interrupt the discussion, or realise after the discussion, that they needed to move on to the next point in the agenda and only then comment something to the sort *'Well that is not really relevant to our discussion'*. Additionally, we observed seven (7) cases where a new meeting is booked during a discussion once it is realised that the discussion is not relevant to the current meeting, this was done by the leader a few times and otherwise by the participants that discuss the problem.

To end meetings we often (6) observed a short evaluation where every participant had the opportunity to highlight what had gone well in the meeting and what could be improved. Furthermore, it was rare (2) to observe a summary of the meeting by the leader where they made sure to compile and go through what had been talked about and highlight decisions that had been made. In *meeting F* this was done by each participant being allowed to comment on or question the notes that had been made and they also had the opportunity to highlight or remind the others of specific points that had been made during the meeting if they felt it necessary.

4.3.2 Engagement and preparedness of participants

As the observation study shows the proportion of participants that used their camera during the majority of the meeting varied greatly from no one using it to everybody. Out of all remote participants in all meetings, 62% used their cameras for the majority of the meeting. In addition, 2 out of the 6 hybrid meetings did not have a camera setup where everyone in the on-site room could be seen. This fact creates a potential friction point which is that a participant cannot, in any way, understand to what level other participants, who they cannot see, are engaged in the discussion as all forms of body language are removed. From our observations, we saw one main way of handling this situation which was that the leader or any other participant active in a discussion had to specifically address the people they could not see to check if they were engaged and had anything to add.

When the situation was the other way around, where people were visible, we observed several meetings (9) where multitasking occurred. In the hybrid meeting where we were present in the room, we observed participants checking their phones, writing emails, and doing other various work not specific to the meeting as exemplified in *meeting G*. When observing remotely in both hybrid and virtual meetings we saw behaviour that indicated multitasking as well. Although we cannot be sure exactly what they were doing on their computer we could observe that the screen brightness changed, as if one was opening different programs, we could see that people were reading and typing, and switching focus between different screens.

When observing hybrid meetings, one of the most distinct behaviours was that those who sat in the same room were actively engaging in conversation to a much higher degree compared to the remote participants. First and foremost, those in the same room had the ability to express themselves with their body language (e.g nodding, eye contact, posture, etc), secondly, they were able to quickly interject conversations with a comment or questions, thirdly they did not have the ability to 'hide behind their screen' and fourthly they were significantly faster in responding when addressed.

A common (14) tool to start the meeting was a check-in of some sort. These ranged from quickly asking the room how they were doing or asking each participant individually, to conducting a short exercise. The vast majority of meetings were started by asking each participant what they were currently working on and how they felt in general. Here we observed some variation between different meetings, in some cases, only work was discussed (*meeting F*) while in other cases both work and personal matters were brought up (*meeting G*). More ambitious short exercises happened 3 times, and are therefore deemed to be out of the ordinary routine and not considered common practice. For example, in one instance the leader of the meeting made a variation of the normal check-in, instead of everyone speaking freely each participant got a randomly generated question that they answered. This variation was stated to help everyone to get to know each other and break the ice.

4.3.3 Digital tools

All but one of the observed meetings utilized the screen share function found within Microsoft Teams. Further use of digital tools was observed in single cases, examples of these were To-Do-Lists (4) and collaboration tools such as Miro (1) in *meeting F*. The screen share was often used to display the agenda of the meeting and documents containing information which was to be shared with other participants. In the cases where CAD tools were utilized (3), the go-to method was a screen share of one participant´s CAD file which they themselves had control over instead of everyone accessing the model at the same time.

In every meeting the leader had his/her camera turned on and in half of the meetings, they told other participants to turn their cameras on as well. This was either verbally stated at the start of the meeting or included in the meeting invitation. Furthermore, we can from the observations see that 62 % of remote participants had their cameras activated trough out the majority of the meeting. In some cases, especially during larger meetings, some participants chose to activate their cameras when partaking in discussions or when presenting information. The usage of a central camera, monitoring the room during a hybrid meeting, was used in 66% of the cases. Furthermore, on two occasions, on-site participants used individual cameras during hybrid meetings. The most common angle in which meeting members positioned their cameras was straight in front of their faces, while a few participants were observed to have placed their cameras on a second monitor, displaying their faces from a slight angle.

4.3.4 Technical issues and communication

During our observations, technical difficulties were a rare occurrence. Out of the 16 meetings we observed 5 instances where the were difficulties with properly connecting the web camera to the call for example in *Pilot meeting H*. Furthermore, in one other instance, we observed a participant not being able to connect properly at all to the call. In both events no significant resources were spent on troubleshooting the problem and the meeting was conducted without a camera for those participants. In the single event where the participant experienced trouble with connecting properly to the meeting, the meeting was started without them, however, they were able to connect properly and participate within 5 minutes had elapsed of the meeting. Other than these instances we observed no technical issues that affected the meeting in any meaningful way.

When considering audio clarity we observed the fact the audio quality of those participating remotely was very good and we seldom (2) experienced any distracting or persistent background noises. In hybrid meetings, it was common for the onsite group to use a central microphone on the table, however during these meetings we often (3 out of 6) experienced that some of the people in the room were hard to hear as they sat far from the microphone. This made their volume much lower than others who sat closer to the microphone. Furthermore, when people who sat in the same room talked at the same time it was extremely difficult for those that participated remotely to hear what was being said, this occurred twice. Only one instance was observed where one of the remote participants spoke up and reminded those on-site to not speak at the same time. When a central microphone was used the audio clarity was further impacted by more frequent background noise such as shuffling paper and people moving around.

One event that is of interest is that during a hybrid meeting a participant that was on-site noticeably raised their speaking volume when addressing those who participated remotely. This is considered of interest since this behaviour indicates that the participant is aware, on some level, that he might not otherwise be heard clearly by the remote participants. At the same time, it also indicates that he does not care that they do not hear him clearly when he is speaking otherwise even though he is supposedly addressing everyone in the meeting, including those that join remotely.

4.3.5 Goal and purpose

During the observation study the usage, and presentation, of meeting purpose and meeting goal have been monitored. The use of meeting purpose has shown to be quite frequent (15) while meeting goals are less utilized (8). The stated purpose of meetings generally clearly states why the meeting is held and what one can expect. However, the goals set for meetings were in many cases of a general nature and difficult to judge if they had been achieved. *Pilot meeting H* showcases a good example of an appropriate purpose but a lacklustre goal. Furthermore, the purpose and goal, if present, are often only stated in the invitation and not presented verbally (2) in the meeting nor is it circled back to at the end of a meeting to control if they had been achieved. The low frequency of concrete and achievable goals (1) made it difficult to observe and determine if the goal of the meeting was reached in more than a general sense. Meanwhile *meeting F* showcased an example of setting several goals according to the S.M.A.R.T framework which made it easy and pain-free to evaluate if all the goals had been fulfilled at the end of the meeting or not.

4.3.6 Pilot study meeting series

During our observations, we had the opportunity to follow a team at Ramboll which changed leadership and modified the structure of their weekly meetings over the course of a month. In table 4.2 and 4.3 these meetings are notated as *Pilot meetings* and are included in the results presented above. However, this section will take a closer look at which changes were made and the effects they had. This opportunity came about in the first meeting with the group that we observed, during this time they discussed that the manager of that group would be on leave for a month and another participant would be taking over and leading the meetings during this time. We then spoke to the new leader of the upcoming meetings. The leader had aspirations to change how the meetings were planned and executed and were happy for us to follow the meetings over the coming month as a part of our study. The new leader was the same person that spoke to us about how Ramboll Norway conducted their meetings and got us in contact with them for *meeting F*. These modified weekly meetings would take inspiration from the meeting structure that Ramboll Norway had implemented.

From our understanding, the typical structure of these weekly meetings before modification was quite straightforward. The meetings had a standing invitation in their schedules which entailed a 1.5-hour meeting. The meeting started with a check-in for the first 5-10 minutes where participants had the opportunity to 'feel the room' and quickly catch up on how everyone was doing and deal with anything pressing. Then they moved on to their agenda which was a shared document where each person could enter details about their area of responsibilities for later discussion. In this document, some notes were also taken by either the leader of the meeting or a participant during the course of the meeting. The main part of the meeting consisted of each participant going through this document in order to inform others of their work and to discuss problems or questions that they had. These discussions were open to comments and questions from other participants and had no firm timetable to adhere to other than the end of the meeting. Once this was done a short evaluation was made by the participants where everyone had the opportunity to highlight both what had worked well and what aspects could be improved.

The new leader changed the structure of the meeting by shortening the meeting to 1 hour but kept the first 30 minutes for pre-work. The pre-work entailed that every technical department manager was required to write in their shared document information on their current work, what was happening, and if they needed support or extra resources. This document was modified to include the purpose and goal, which is the same as in 4.1.3. Additionally, in the shared document, which served as both the invitation and agenda to the meetings the *'rules of the game'* were presented, these are the following:

- We follow the meeting agenda
- We are prepared
- We have our cameras on
- We respect the time
- If you can't participate, send a replacement or book a separate time with the team leader
- Focus on our meeting, everybody is expected to contribute to the success of the meeting

The structure of these modified meetings was such that during the first half of the meeting, the vision was that every technical department manager would shortly present the information they put in the protocol during the pre-work for approximately 5 minutes each. The latter half of the meeting consisted of discussing tasks in a to-do list which also was established. It was during this latter half that discussions were encouraged by the leader and the to-do list was used to delegate tasks by assigning participants to the tasks they would work on. Finally, the evaluation was done in the last couple of minutes, this process was not modified by the new leader and simply entailed that every participant had the opportunity to say what had gone well and what needed improvement.

As we can see, this new structure has incorporated aspects from *meeting F* and created a shorter meeting that aims to be more efficient by spending less time informing other participants and more time discussing problems and looking for a way forward. It has also managed to establish a direction by providing a purpose, goal, and rules.

The first weekly meeting that was held with the new leader and modified meeting structure did, unfortunately, not go as planned. First and foremost the scheduled meeting in the software had not been changed which meant that 1.5 hours were still allocated to the meeting as it had been the weeks before. This had the effect of participants joining the meeting at different times and shortly thereafter leaving the meeting when they noticed that they were alone during the first 30 minutes when the pre-work was meant to be done. During the second of these modified meetings, the scheduling problem was changed so that the meeting was only assigned one hour which fixed the occurrence of people showing up early. During the first two of the modified meetings the initial part of the meetings where each participant got time to inform the others on their area of responsibilities they often spent more than their allocated 5 minutes. Additionally, they were still often interrupted by others which lead to discussions. In subsequent meetings, this improved and participants spent less time informing others and more time discussing issues they needed support with.

During the observation of the first meeting, before modification to the meeting structure, we noticed that few of the decisions that resulted from discussions were written down in any systematic way. This was circumnavigated to some extent by the to-do list in subsequent meetings as it seemed easier to create and keep track of tasks based on the discussions in the meeting.

The trend which was observed during the meeting series was that the vision had by the leader was never communicated clearly enough to the other participants. The latter resulted in a consensus regarding how to operate never being reached. The ideas initially held by the leader seemed very promising and aligned quite well with what has been found in the literature.

When the original leader returned large parts of the new structure were kept in place. The most significant change that was made was that the utilization of the to-do list was removed and they returned to noting down decisions in the meeting protocol. Additionally, the initiative to focus the meetings on discussing problems was lost and they returned to focusing on informing each other of their work.

4.4 Interviews

As can be seen in 3.1 many of those we interviewed are working in senior positions and therefore, in most of the meetings they participate they are the ones who have called and lead the meeting. This perspective is reflected in the interview answer as most questions were answered from the perspective of the leader of the meeting. Every question that was asked during interviews will not be reported in this section and the interview guide can be seen in **??**. In this section, we will highlight some statements and points made by the interviewees for a selection of the questions that serve to provide the information needed to answer our aim.

4.4.1 Preparations

- Which preparations do you normally go through prior to a meeting?

The responses received contained the following key concepts. Preparing an agenda, distributing the agenda to the participants in advance, deciding upon who should attend the meeting and deciding if a pre-meeting is necessary. Regarding the time frame in which the preparations were made, the respondents all agreed on it varying from time to time. Preparations were found to be performed from a week to minutes before the meeting. Further, a consensus was seen regarding preparations being more extensive and important prior to an external meeting than an internal meeting.

- How do you experience the level of preparedness of participants in hybrid meetings compared to traditional meetings, equal, lesser or greater?

The common answer received when prompted with the question at hand was no, there is no difference.

- Is there any difference between the way you would prepare for a traditional meeting and how you prepare for a hybrid or virtual meeting?

For the most part, respondents reported that the level of preparedness could be seen as equal, even though the engagement often was mentioned to be worse among the people who participated remotely. Further, some interviewees discussed how it would vary a lot among individuals, the people who came less prepared to traditional meetings were the same ones attending hybrid meetings less prepared. One respondent, interviewee 3, uttered how they experienced meeting participants being a lot less prepared in hybrid meetings than in traditional meetings. Finally, some respondents explained how purpose and goal needed to be utilized to prevent a potentially lower degree of preparedness.

- Would you say that hybrid meetings are shorter, longer or have the same lengths as traditional meetings?

The general consensus among the respondents was that meetings contained the same lengths when transitioning to hybrid. A couple of respondents believed that hybrid meetings could tend to be a bit more extended, interviewees 8 and 5. There was also a respondent, interviewee 7 who mentioned how due to preparations and the need for physical movement, traditional meetings may be more extended. Further reasons uttered for hybrid being a bit longer were to do with issues with technical equipment.

4.4.2 Leadership

- Who decides when and which type of meeting is to be held, and are there any guidelines to help this decision?
No respondent had seen or heard of any guidelines that could help in making this decision. When concerning internal meetings there were two types of meetings, the first being recurring meetings such as weekly or monthly meetings. As these are routine events no respondent saw any special need for guidelines or support to plan and execute these. The second was non-recurring meetings that occur when a need to collaborate is identified. The responsibility of scheduling and planning these sorts of meetings often falls on the employee that identified the need or an employee in a managerial position. External meetings differed in that these are often scheduled

and planned by the external partner in the tendering phase. Interviewee 7 noted that some form of a guideline would probably be helpful in order to better prepare meetings and decide if a meeting is needed.
- What are the main differences in leading a hybrid-, virtual-, and traditional meeting?

The consensus among respondents was that an equal engagement level of participants in a hybrid meeting was much harder to reach than in both virtual and traditional meetings. In hybrid meetings that they had participated in the remote participants were often forgotten by the leader and not able to participate to the same level as if everyone was participating in the same way.

- What is important to consider to efficiently lead a hybrid meeting?

Many of the respondents' key techniques, used in hybrid meetings to include and engage those that joined remotely were to specifically address them so that they got time and space to speak without interruption from the fast conversation that occurs between those that sit in the same room. Some other common techniques that were mentioned were to address every participant in order of a list or position and remind them to turn on their cameras so that they were visible. Furthermore, a meeting where each participant is aware of the purpose, goal, and what is expected from them was indicated to increase the engagement level.

- Which group, in a hybrid meeting, is easier to manage?

The consensus among respondents was that those that participated on the same communication medium were easier to manage and engage with. That is to say, if they participated remotely other remote participants were easier to manage and the other way around.

Do you always know who is leading and facilitating the meeting? For example, an internal meeting without a manager?

Most of the time the respondent said that if it leader of the meeting is not clear from the meeting invitation it is assumed that the person sending out the invitation is facilitating the meeting. On rare occurrences this is not the case and a meeting is held without a designated facilitator, however, it was said to have limited effect on the meeting outcome.

- What do you think about the number of meetings and how has the number of meetings developed over the last 5 years?
Most respondents consider the number of meetings to be at a manageable level. However, interviewee 3 claimed that up to 75 % of meetings are ineffective, a view which is shared to some extent by several other respondents. Interviewee 6 commented that they participate in a lot of meetings that should and could be adjusted in scope, allocated time, and direction. Concerning the development over the last 5

years the general consensus is that there are more meetings today and interviewee 6 has seen a development where there are many more but shorter meetings as an effect of remote work and not having informal meetings around the office. Interviewee 7 has experienced a large increase in meetings over the last 5 years.
Have you experienced or considered implementing meeting-free days?
Interviewee 1 said that this change had been discussed in of the projects they are involved in and two sides formed. One side view it as a potential positive change as it allows people to focus on their work without distractions while the other side considers meetings a key to being able to coordinate what work needs to be done. Interviewee 7 has had meeting-free days and views it as a positive change with the same reasoning as above.

4.4.3 Involvement and engagement of participants

- Do you feel more engaged while participating remotely or physically in a hybrid meeting?
All respondents were in agreement regarding when they felt the most engaged. While physically present the engagement level was found to be higher. Further comments received from respondents mentioned how the difference in engagement was negligible when comparing virtual meetings and traditional meetings due to the communication medium being the same for everyone. While discussing engagement with interviewee 5 the topic of multitasking was brought up. The interviewee explained that it was quite easy to become distracted when participating remotely even when they feel that they are engaged in that meeting. When you get a chat message or email they often answer it, if it is a quick answer, thereby switching the focus from the meeting to the distraction.

- If you yourself are leading hybrid meetings, how do you experience the engagement level among the participants, and how do you go by to make sure everyone participates?

Engagement levels among participants in a hybrid meeting were found to be seen as generally lower though as previously mentioned slightly higher with the people physically present compared to the remote ones. Techniques for retaining involvement among participants were given by interviewees 1, 7 and 8. The mentioned respondents uttered how making demands for involvement, distributing the ability to speak up, creating breakout rooms, starting the meeting with an ice-breaker or check-in, demanding preparations and establishing time frames for the agenda could all be used to retain participation. Lastly, some respondents explained how a hybrid setting caused a lot more to be expected from the leader of the meeting to keep the same level of coordination

4.4.4 Digital tools

- Which tools, that are not utilized in meetings, do you think would help if they were utilized, if any?

The majority of the responses which were given emphasized that the respondent was the wrong person to ask regarding digital tools and was not able to come up with any examples. Among the suggestions were: a button which closes all ongoing tasks on participants' computers to dissuade multitasking, a whiteboard on which the meeting leader could visualise their ideas, collaborative tools to encourage cooperation in digital meetings, such as Miro, and AR software to create further immersion for meeting members. Most respondents expressed how they are quite pleased with the supply of already existing digital tools.

- Is the usage of camera important when attending a meeting remotely? And where should the camera be placed when activated?

The group of respondents were in total agreement of a camera being an important tool to keep on during digital and hybrid meetings. A few responses regarding lesser importance in large meetings were received, but the consensus was to keep the camera on. Regarding placement, most respondents believed the camera should be placed straight ahead in front of one's face. Though some also mentioned how it was not very important where it was placed as long as it was activated. When in larger meetings, some interviewees uttered how keeping the camera on was important only when they were part taking in the discussion or contributing to the topic at hand.

- Do you often experience issues with the technical aspects of digital and hybrid meetings?

The respondents all agreed upon the technical issues mostly being a thing of the past with the only current problems being that some hybrid meeting rooms contain outdated or malfunctioning equipment.

4.4.5 What is a good meeting?

After these four topics had been discussed in the interviews we asked the respondents to describe what a 'good' and "efficient" meeting is. The definition of "good" and "efficient" was left to be interpreted by the respondent in their own way in the moment. The respondents were quite unified in what they consider important in meetings. The most common aspects that were mentioned by several respondents were an agenda and meeting protocol that is sent out before the meeting, sticking to said agenda, clear expectations set for each participant, and a goal and purpose so that you know what the desired end results are, and a summary to end the meeting. Furthermore, it was said that keeping meetings as short and to the point as possible is desirable, every participant is listened to and their input is considered, clear roles in the meeting are delegated, participants are properly prepared, the set time is adhered to, and a social aspect to see and catch up with colleagues were some other common points made by respondents. Lastly, check-in at the start of meetings was considered by many to be important and decisions from earlier meetings are followed up on to either see if further work and support is needed or if the task has been accomplished.

4.4.6 Language barrier

No one has experienced any significant difficulties when speaking in a non-native language. Even though it is said that it can be more difficult to express oneself fully in a second or third language they often manage with some help from other participants to make their point across. The only time that language could be a problem is when discussing specific technical issues in detail that it could be an issue, but this appears to be a rare occasion.

5

Analysis

This chapter will look at 14 topics that we have found to be relevant when considering how meetings are prepared, executed and followed up. For each subject analysed, we consider what we observed, and discussed during interviews and the information gathered in our literature study in relation to our case study at Ramboll. Based on this chapter we propose several areas of improvement and what can be done to improve the situation as well as behaviour that we consider to be sufficient and should we continue with.

5.1 Before the meeting

The following subheadings represent tasks which should be considered prior to the meeting. Certain tasks require additional work after or during the meeting as well but are first and foremost important to consider before the meeting.

5.1.1 Goal

As presented in the previous chapter, meeting goals are utilized to quite a low frequency. Further, the evaluation table presents it as something which should be improved to reach more efficient meetings. As explained by Cothran and Wysocki (2005), the goal is a tool for ensuring consensus regarding where a group of people desire to be in a preferable future. Adopting the previous sentence to meetings, the goal can arguably be used to get all participants to work towards the same end during the meeting. When discussing the matter with the interviewees, most people seemed to believe a meeting goal was important in creating a *good* meeting. The act of following up on the goals set at the beginning of meetings falls short, not only because there seldom are any goals, but also since when goals are used, they are not measurable. As presented by Locke and Latham (2012) the follow-up is important to reward participants for achieving the goals and creating motivation.

5.1.2 Purpose

The meeting purpose, which has been stated as good practice in the evaluation table, is to a large extent performed well in the case study. As found in the observation study, almost all meetings could be seen containing a purpose which was accessible by all meeting attendees. Some meetings also had a verbal presentation of the purpose to ensure that all participants were made aware of the reason for the meeting being held. We argue that the process of creating and sharing a purpose is performed to a degree which is satisfactory. Certainly, the task can be performed even better but is as it stands not a central issue.

Looking into possible shortcomings regarding meeting purposes, a lot of meetings presented purposes which were very general. The most common purpose goals found by A. Allen et al. (2014) could frequently be found in the observation study as well. To conduct a meeting with the sole purpose to move forward in the project might be true but can be argued not to satisfy the exact reason for the meeting being held. To ensure all participants know why they are present and should spend time and effort on the meeting, it could be seen as favourable to supply the possible lack of comprehension among participants with a comprehensive meeting purpose, as also discussed by LeBlanc and Nosik (2019). Further, the interviews supplied an understanding of how employees value a thought-through meeting purpose as an essential part of a *good* meeting.

5.1.3 Preparations

During our observations, we saw one instance where pre-work was assigned on an individual level and it was also during this meeting that the verbal control of pre-work was conducted. We view this as a desirable, and more importantly a realistic, state to reach for. The other meetings did not assign any pre-work in any clear or obvious way in either the invitation or agenda (Meeting protocol??). When asking respondents about how they prepare and view the preparedness of others during the interview study there was no mention of assigning or doing pre-work. However, it was said several times that ensuring that each participant was aware of the expectations and what they should be able to contribute was an important aspect of a good and efficient meeting. This argument, however, when expanded on by respondents, was based on having a proper meeting purpose and goal but it can be argued that it should include assigning pre-work as well. As we can see in several parts of the analysis the respondents seemed to be aware of good practice but it is not implemented practically. Therefore we consider the assignment and follow-up of pre-work as an area of improvement.

Pre-work should be a key part of meetings, especially hybrid meetings, as established by Karin M. and Joseph A. (2022). This enables the organisation to keep meeting time to a minimum and by extension, it can be argued that the organisation can become more efficient as the pre-work can be scheduled and completed on an individual level when they have the time and not be confined to the meeting and its participants. This gives the employee an opportunity to have autonomy and control of their work which helps build an environment with physiological safety (Grebski & Gajdzik, 2022). Assigning pre-work to meetings enables the participants to be more prepared and engaged which also answers the question of what they are expected to contribute with (Goodbrand Skagerlind & Sundström, 2022).

5.1.4 Meeting Selectivity

Meeting selectivity refers to the process of deciding what should be a meeting and what should not. As has been found out during the interview study, the person leading the meeting is responsible to create the meeting and send out an invitation. One could argue that weekly team meetings could be conducted through e-mail, or similar chat function, by simply reporting directly to the manager. The manager could the organise smaller calls with those participant that are need to solve specific problems. This would however leave out social aspects that meetings otherwise provide to a team. When we asked our respondents during the interviews if there exist any guidelines for when and how to conduct a meeting everybody responded that there were no such guidelines that they were aware of. This then indicates that meetings are planned and conducted on informal institutional knowledge that relies on the leader of the meeting and their personal experience and discretion. This was reflected in the observation study in a couple of ways, firstly the length of similar meetings (e.g. weekly meetings with a similar amount of participants) varied from 1 hour to 1.5h hours. Secondly, we could not observe a standardised agenda or protocol except in *meeting F* and during the *Pilot meeting series.*

As discussed by Laker et al. (2022), the amount of held meetings rose during the pandemic and put further workload on employees. To take into consideration the results from our research, the favourable action could arguably be to remove meetings which should definitely not be meetings and streamline the remaining ones (*e.g. Pilot meeting series*). The question is then how one could streamline meetings, which is fundamentally the same question this thesis attempts to answer. To exemplify this the members of the studied division within the case study were found to on average spend 23.75 hours in meetings per week, 4.1. If actions could be taken to reduce time spent in meetings by an arbitrary number of 10%, the average employee would reduce their time spent in meetings per year by about 104 hours, assuming that an employee works 1 800 hours a year. Converted, 104 hours represents close to three full-time working weeks of less time spent in meetings which now can be spent on other tasks. The framework provided by Standaert et al. (2022) in the topic overview can be useful as a guideline for meeting leaders and facilitators deciding on how to conduct their meetings.

A common phrase many have heard is something to the effect of *'This meeting could have been an e-mail'*. We argue that this feeling could be caused by two reasons. Firstly, the participant in question really does not have any legitimate reason to attend the meeting and it would suffice to look through the meeting notes after. Secondly, they lack understanding as to why they were invited. Both of these reasons can in large part be improved by setting a proper purpose and goal as shown above. If the meeting leader sets a proper purpose and goals they then know which personnel is needed to achieve those objectives so only those participants are invited.

Additionally, it enables the participant to not only know when and where they have to be somewhere, but also understand why and what they can, and are expected, to contribute.

5.1.5 Roles

The distribution of roles prior to the meeting commencing has been evaluated to need improvements. First and foremost, the results from the observation study suggest that role distribution is seldom performed and in most cases, all the responsibility falls upon the leader. It can be argued that the person that has the primary responsibility should facilitate the meeting, as has been expressed by the interviewees, but does the leader need to take on all roles in a meeting? Karin M. and Joseph A. (2022) provides the example of a chat facilitator which can be distributed during meetings, the chat facilitator monitors the chat for any messages and brings them to the leader's attention when needed and appropriate. We have also observed instances where a participant was appointed responsible to keep track of the time intervals established in the agenda, to great success. This would reduce the cognitive load on the leader of the meeting and allow them to have a wider view of what is happening and ensure that the meeting runs smoothly.

It should be noted that the role distribution could be taken advantage of when dealing with discussions which run off track. Several instances of unrelated discussions could have been avoided if a responsible person would have helped the participants back on track. The role that seems most common to deal with unrelated discussions is the facilitator. As stated by Miranda and Bostrom (1999) the facilitator should be responsible for enabling effective interaction among participants, which includes staying on topic. According to the authors, the facilitator should also be responsible for content facilitation, enabling solving of the issue at hand through planning and management.

Taking into consideration what is said by literature and what is observed in the observation study, roles should be distributed on a larger scale than what is done today. Further, some interviewees mentioned how they thought proper role distribution was part of creating an efficient meeting.

5.1.6 Agenda

Agendas of varying detail were used in all the observed meetings, most were a simple bullet-point list of each topic or which participants that were supposed to present something. Looking at the agenda used in *Meeting F*, we see an example of an agenda with much more information and detail. This agenda is used in 6.3 as a basis for our own proposal of how to design a standardised meeting protocol that can be used within the organisation. The interview study, arguably unsurprising, shows that preparing an agenda is the main consideration when asked which preparations are done before a meeting. It can be surmised that these answers consider the design of the meeting goal and purpose as well, and in a similar manner the entire structure of the meeting but we cannot be sure. When posed with the question of what a good and efficient meeting include the agenda and the ability to stick to the agenda were noted by many of the participants. Here we see an opportunity for improvement by standardising an agenda that considers more aspects than a simple bullet point of each topic.

Our results indicate a significant difference compared to the results found by Romano and Nunamaker (2001), Where our study observed an agenda in all meetings they only found an agenda in 32% of the meetings. Their study also states that a lack of agenda is a lack of planning, in this regard Ramboll performs very well. To improve on this aspect we recommend that the planning done in conjunction with the agenda should consider the points made in our analysis of meeting goals and purpose, role distribution, use of camera and meeting time.

5.2 During the meeting

The following subheadings represent tasks which should be considered during the meeting. Certain tasks require additional work before or after the meeting as well but are first and foremost important to consider during the meeting.

5.2.1 In-check

The check-ins observed during the observation study ranged from simple *How are you doing?* questions to the meeting facilitator bringing up a web page with randomly generated questions. The level of ambition put into the task corresponded to how well the participants knew one another, which indicated efficient use of check-in. The interviews provided further input, saying that check-in should be included when aiming for an *efficient* and *good* meeting. Literature follows the same tracks as observations as well as the interviews, arguing that the check-in should be included but can differ in ambition level and how extensive they are. Astrom and von Alvensleben (2021) even claimed it might contribute to psychological safety, making it even more crucial when conducting meetings in a hybrid setting. With the three aspects aligning, we argue that the check-in is performed well and should not be focused on when looking to improve meetings.

5.2.2 Engagement

The most distinct behaviour we could see in regards to engagement during our observation study was that during hybrid meetings, those that sat together on-site were engaged with each other to a higher degree as described in 4.3.2. During the interview study, it was said that the respondents feel more engaged when participating physically in a hybrid meeting. However, when comparing virtual and traditional meetings they feel an equal engagement level since everybody is using the same means of communication. When questioned on how they manage this discrepancy between on-site and remote participants several techniques were brought up that they use to engage and involve participants.

These inequalities that we found in hybrid meetings can also be found in the literature, for example by Goodbrand Skagerlind and Sundström (2022). It can then be argued that by conducting hybrid meetings you are only creating problems for yourself and the organisation since they appear to be inherently less efficient than the other two alternatives. This also avoids the creation of subgroups within the project and organisation. However, if you are to have a hybrid meeting or any other type of meeting for that matter, it is key to create a work environment where participants feel safe for them to contribute and be engaged. (Chien Chiang & Chin Li, 2022; Goodbrand Skagerlind & Sundström, 2022; Grebski & Gajdzik, 2022). The degree to which a participant is engaged in the meeting is influenced by many of the other aspects that are commented on in this analysis chapter, to mention a few examples the presence of multitasking, use of camera, and role distribution are relevant.

5.2.3 Technical issues

Neither the observation study nor the interview study showed any significant indications of reoccurring technical problems that hindered productivity in meetings. During the observation study camera trouble was the most common problem, occurring a total of 5 times of which 2 occurred on-site during hybrid meetings. This indicates a larger proportion of technical issues when using meeting room equipment compared to using one's own computer at home or workstation. These observations are supported by the interview study. Therefore do we not consider technical issues as a reason for inefficient meetings.

5.2.4 Camera

The use of camera is an aspect that we consider in need of improvement, or rather optimization since all three studies are contradicting each other to some extent. The overwhelming consensus from the respondents in the interview study was that having cameras on is important, as being able to observe the body language of the one you are conversing with seemed to be highly valued. This is based on two things said during the interviews, firstly, there is a preference to having the camera placed head and secondly a preference that even during large meetings the participant turns their cameras on when engaging in discussions. The observation study shows that 62% of remote participants and 66% of on-site rooms had their cameras on for the majority of the meetings when considering the whole sample size. In the pilot study where having cameras on became a request by the meeting leader, it was more common for everyone to have cameras on throughout the meeting than not as seen in table 4.2 and 4.3.

Unfortunately, neither the observation study nor the interview study provides any in-depth context as to why we observed this disparity between interview respondents desiring to have cameras turned on and observed meeting participants only having their cameras on for 62%. However, the research by both Epstein (2020) and Shockley et al. (2021) provide a plausible explanation for this. Participants' resistance to turning their camera on, unless explicitly instructed to do so, can be an effect of *Zoom fatigue* or an attempt of avoiding *Zoom fatigue*. If we consider the time spent in meetings in table 4.1, where the average employee spend more than half their week in meetings this reasoning becomes even more plausible. To contrast, those that we interviewed often lead many of the meetings they participated in, thereby increasing their desire to have access to the visual aspect and body language of the participants to better judge aspects such as engagement to more effectively lead the meetings.

We consider the use of camera an aspect in need of improvement because of this contradiction. Understanding both the negative and positive effects of using cameras that are brought up by Epstein (2020) and Shockley et al. (2021) is necessary to find a new and improved balance within the company. We can not directly claim what this balance is, however, we do suggest that a dialogue between managers and employees needs to happen so that both parties can establish common ground and understand each other.

5.2.5 Meeting duration

When discussing meeting time, the degree of used time in proportion to the allocated time is referred to. As mentioned previously, the observation study showed a total of 95% of the allocated meeting time was used. To be clear, the remaining 5% were not ineffective time spent sitting idle in meetings but were time which was not needed, that is to say, they ended the meeting before using all the allocated time. It should, however, be noted again that we observed two instances where meetings ran short on time and the leader verbally stated that they had to speed things up and three meetings that used more than the allocated time. The respondents in the interview study expressed a desire for meetings to be as short as possible and that the set time is adhered to. Based on these results it is quite clear that Ramboll currently performs well in this aspect. However, the same argument that was explained in 5.1.4 can be made here for a desire to shorten meeting time to enable employees to spend time on other tasks. Furthermore, spending over half, and in some cases, three quarters, of your working hours in meetings can lead to unnecessary stress as a result of *zoom fatigue* as described by Epstein (2020), Shockley et al. (2021), and Standaert et al. (2022).

5.2.6 Multitasking

Multitasking, or at the very least indication of multitasking, occurred in more than half of the meeting. We only had the opportunity to observe one hybrid meeting while being present on-site where we, with a high degree of certainty, can say that multitasking occurred. When observing meetings remotely we cannot be as certain that multitasking occurred but we observed several behaviours that indicated this. These behaviours we observed remotely could be instances of people taking notes and pulling up relevant material and documents which is not considered multitasking in a negative light. During the interview study, one respondent commented on multitasking saying that even when you are engaged in a meeting it is easy to become distracted by messages and emails.

When discussing this topic with employees of the company outside of the interview study many freely admitted to both observing instances of multitasking and admitting to doing it themselves as a result of attempting to work more efficiently and save time. The general consensus seemed to be that no one is sure how to handle it or how much of an impact it has.

We, therefore, view this aspect as an area in need of improvement as it is quite easy to argue that multitasking leads to more inefficient meetings. As noted by Goodbrand Skagerlind and Sundström (2022) a lack of engagement is probably a major reason for multitasking. The participant needs to be able to answer the two questions: *is this meeting relevant for me?* and *Do I have something to contribute with?*. Therefore the leader needs to engage the right participants through active facilitation so that they both encourage desirable behaviour and enforce non-desirable behaviour. To exemplify this we can consider a scenario where the leader and/or the facilitator of a meeting suspects a participant of multitasking and not engaging in the discussion in a meeting they can simply ask them what their thoughts are on a specific detail. We can then hope that if the participant is not able to provide a good enough comment they feel shame to a certain degree. Simple techniques such as this can discourage unwanted behaviour as recommended by Goodbrand Skagerlind and Sundström (2022). Ultimately, multitasking could be seen as a symptom caused by poor planning and the wrong selection of participants. The latter could arguably be solved by making sure the various other aspects of meetings are correctly managed.

5.3 After the meeting

The following subheadings represent tasks which should be considered during the last moments of a meeting or shortly after the meeting. Certain tasks require additional work before or during the meeting as well but are first and foremost important to consider after the meeting.

5.3.1 Summary

It was quite common to observe an evaluation of the meeting as a conclusion, occurring in six of the meetings while it was rare to see a summary of the meeting, only happening twice in a structured way, such as *meeting F*. In contrast, it was common in the interview study when asked what a *good* and *efficient* was to express a desire for a summary. Both Karin M. and Joseph A. (2022) and Miranda and Bostrom (1999) recommend that a summary is done, it can both be verbal, combined with input from meeting participants, or a written summary based on notes taken during the meeting. Providing written summaries provides the organisation traceability of what is going on in each project and it also enables employees to easier catch up on work if they have been absent or to guide their day-to-day work by looking back at what decisions have been made in earlier meetings.

5.3.2 Use of protocol

During the observation study, we observed 3 meetings where we consider that the use of protocol was good. We admit that the definition of good note-taking and use of protocol is subjective, however, all these three meetings had some aspects that we judge as good practice. Firstly, they all had a dedicated secretary, secondly, the secretary noted down decisions made during the meeting and a short summary of what had been discussed. Thirdly, these notes were accessible to all other participants shortly after the meeting. Lastly, these notes were looked through and commented on by all the participants at the end of the meeting as a summary. All these aspects align with the recommendation that Baker and Murphy (2021) and Karin M. and Joseph A. (2022) present in their research in regards to using a secretary and can be observed in *meeting F*. One thing we should note here is that these three meetings stand out since the protocol was used during the summary and we were able to see them and make our judgement. We cannot speak with certainty if other meetings also had a secretary and the first three aspects were the same or if each participant had to make their own notes.

A well-executed protocol can be used as a written summary of the meeting and we refer to the arguments made in the section directly above that touches upon the benefits of traceability and as a catch-up tool. Furthermore, only having one participant focused on taking notes limits distractions and limits the downsides of multitasking that Goodbrand Skagerlind and Sundström (2022) discussed. During the interview study, a meeting protocol was mentioned in conjunction with the agenda as desirable but we did not question this topic in any more depth.

5.4 Resistance to change

When conducting the interviews, the discussions quite frequently regarded better practice and how it can be done. To our surprise, the interviewees quite frequently seemed to be aware of how to act to create more efficient meetings. An example of this was observed when discussing the importance of clear and thought trough goals when conducting meetings. The interviewees believed goals played a central part in efficient meetings but when observing meetings, proper goals were a rarity. The question then arose, how come the knowledge among employees is present but only a selected few choose to act accordingly? Following the observation study, what could be seen as a current practice did not align with what interviewees described as *good* meetings. Lauer et al. (2010) provided input on why knowledge alone might not be able to change current practice. The authors argue that the organization needs a vision, plan, and goal which they believe for change to actually take place.

When presented with the opportunity to observe a meeting series that received a new temporary meeting leader who had visions of an innovative way of conducting meetings, the pilot meeting series, the possibility to study resistance to change emerged. The meeting series did improve in many regards, for example by decreasing time spent in the meeting, increasing the frequency of camera usage, and focusing more on decision-making than information sharing.

When discussing the outcome of the pilot meetings series with the new meeting leader, they pointed to how the lack of ownership might be one of the reasons for change not remaining permanent. The meeting series lost several new methods following the return of the original leader.

Considering what was said by the interviewed meeting leader, what has been observed in the meeting series and the contribution of researchers as presented in the topic overview. We believe knowledge to be an essential ground pillar when striving for change, but not sufficient on its own. In the case of Ramboll, it seems the organization would need proper commitment to the cause, assigning a team to implement change which would result in ownership of the responsibility.

5.5 Utilization and implementation

This report studies what parts of meetings could be improved to reach a more efficient way of conducting meetings. The end result is in the form of information and knowledge. As has been previously stated, knowledge can only take an organization so far and does not on its own result in organizational change. With that said, the proposed solutions which will be presented could be seen as a vital tool for using better practices but will need complementary actions from the company to really serve its purpose.

Suggestively, the report could be utilized to standardize practices regarding both attendance and leading hybrid as well as other types of meetings. Seen how much time some employees spend in meetings, it could be argued that the art of conducting meetings is their main task and should be treated as such. To have employees who spend more than half of their time leading meetings and not providing them with clear methods of operating could be seen as a potential loss of efficiency and an unnecessarily high workload. The upsides found in the standardization of meetings could be more efficient integration of new employees, thanks to clearly stated operation methods. Another benefit could be less confusion and conflict in meetings since all participants would know what is expected from them, as well as what their responsibility as participants is. Finally, as has been mentioned before, the amount of time spent in meetings would arguably be drastically reduced if the organization managed to implement better practices. However, simply by securing that employees practice the same methods when partaking in meetings, the time spent could significantly reduce.

6

Proposals

This chapter provides a short evaluation of which aspects of meetings we recommend Ramboll to continue with, improve, or completely remove. This is followed by a list of practical considerations and an example of a meeting protocol we recommend implementing to create more efficient meetings and a more streamlined workflow.

6.1 Evaluation

The following table, 6.1, summarises our evaluation of each of the 14 aspects which have been analysed in the previous chapter. The table is organised so that aspects one should consider before the meeting comes first followed by during the meeting and lastly by how to end and follow up the meeting.

Table 6.1: Summary of our analysis

	Continue with	**Improve**	**Remove**
Before the meeting			
Goal		x	
Purpose	x		
Preparations		x	
Meeting selectivity		x	
Roles		x	
Agenda		x	
During the meeting			
In-check	x		
Engagement		x	
Technical responsibility	x		
Camera		x	
Meeting time	x		
Multitasking			x
After the meeting			
Summary		x	
Use of protocol		x	

6.2 Considerations

Here we provide a list of actions the leader of a meeting should consider before, during and after a meeting. As many on these aspects should be considered and applied as possible when the resources are available. These considerations aims to provide a short and easy to follow guide to meeting leaders when planning meetings, consequently leading to long term change and increased efficiency.

6.2.1 Before the Meeting

We suggest the following steps for Ramboll to consider before their meetings in order to improve their meeting efficiency.

- *Establish a purpose for the meeting and goals for the meeting.*
- *Invite those participants that are needed to fulfil the goals and purpose.*
- *Delegate meeting roles to appropriate participants.*
- *Decide which type of meeting is the most appropriate based on the above.*
- *Specify the rules for the meeting.*
- *Create an agenda, preferably with a timetable.*
- *Decide if pre-work should be delegated before the meeting and what each participant should do.*
- *Provide the above information in the invitation well before the meeting occasion.*
- *Prepare documents/information for the meeting and consider which technical aids are needed. Also, consider a backup if technical equipment fails.*

6.2.2 During the Meeting

We suggest the following steps for Ramboll to consider during their meetings in order to improve their meeting efficiency.

- *Start the meeting with a check-in, prioritize those participants that attend virtually.*
- *State the purpose, goals, assigned roles and meeting rules at the start of the meeting.*

- *The leader and/or facilitator should prioritize those participants that are attending on a different medium than themselves.*
- *Follow the agenda and adhere to the timetable, adjust only on rare occasions when needed.*
- *Terminate, in a direct but polite way, discussions or monologues which do not contribute towards the meeting goal.*
- *Dissuade behaviour which does not follow the pre-decided meeting rules, such as multitasking or interruptions.*

6.2.3 End of meeting and shortly after?

We suggest the following steps for Ramboll to consider at the end of their meetings and shortly after the meeting has ended to improve their meeting efficiency.

- *Summarize the decisions that have been made with the help of the agenda template.*
- *Evaluate if the purpose and goals have been fulfilled.*
- *Evaluate the meeting, for example by using the plus-delta method.*
- *When in a hybrid setting, make sure that all participants have left the meeting before ending the session, enabling possible questions to be asked by participants who attend via another medium than the meeting leader.*
- *Compile the protocol and distribute it to recipients within 24 hours.*

6.3 Agenda template

To support the recently mentioned considerations, an example of a framework has been created, as seen in figure 6.1. The framework is designed to be used prior to and during the meeting. It handles purpose, goals, rules, participation, role distribution, decision making and agenda. When going through the list of actions, the meeting leader should utilize the provided framework to keep track of what has been established and make it easily accessible for meeting participants.

Date	01/23-45
Time	00.00
Project	Example Project
Purpose	The purpose of the meeting.

Rules of The Meeting	
Rule 1	
Rule 2	
Rule 3	
Rule 4	
Rule 5	

Goals of The Meeting		Did We Reach the Goal
Goal 1		Yes
Goal 2		Yes
Goal 3		No
Goal 4		No
Goal 5		Yes

Participants		Role
Participant 1		Facilitator
Participant 2		Time Keeper
Participant 3		Chat Facilitator
Participant 4		Secretary
Participant 5		Comic relief

Decisions		Responsible Person	Deadline	Comment
Decision 1				
Decision 2				
Decision 3				
Decision 4				
Decision 5				

AGENDA	TIME			RESPONSIBLE
Task 1	01.23	-	45.67	PERSON 1
Task 2	01.24	-	45.68	PERSON 2
Task 3	01.25	-	45.69	PERSON 3
Task 4	01.26	-	45.70	PERSON 4
Task 5	01.27	-	45.71	PERSON 5
Task 6	01.28	-	45.72	PERSON 6
Task 7	01.29	-	45.73	PERSON 7
Task 8	01.30	-	45.74	PERSON 8
Task 9	01.31	-	45.75	PERSON 9
Task 10	01.32	-	45.76	PERSON 10

Figure 6.1: Example of a standardised meeting protocol

7
Conclusion

To conclude the thesis we will return to our three research questions as stated in the introduction. Additionally, we will consider the strength and weaknesses of our thesis and provide suggestions for future research.

7.1 Answering research questions

Based on the information we have gathered throughout the report we can now return to our stated research questions. These three questions will be answered separately and are based on the information in our analysis.

1 - What constitutes an efficient, value adding, meeting for a consulting company that operates within the construction industry?

Our conducted research has through a case study of Ramboll DMO found fourteen points of interest, constituting how efficient and value-adding a meeting is. A meeting that classifies as efficient and value-adding is therefore defined as a meeting that manages all fourteen points of interest according to the suggestions presented in this report in relation to the available resources.

2 - Which aspects become essential to consider when conducting efficient meetings in a hybrid setting for a construction consulting company?

Hybrid meetings are shown throughout our case study to introduce additional challenges that need to be considered. In general, all aspects become increasingly difficult when conducting meetings through more than one medium of communication. The aspects which have shown to differentiate themselves the most when transitioning to a hybrid setting are how the leader prepares the meeting and delegates pre-work, the need to prioritize those on another medium, how to create and keep engagement, and to consider the use of camera and the effects of *zoom fatigue*.

3 - How should Ramboll employees act to improve the efficiency of all their meetings?

Based on the information provided throughout the thesis the answer can be found in the previous 6. This chapter provides both practical conditions and a meeting template that can be used to standardize how Ramboll conducts its meetings in order to establish a more efficient workflow.

7.2 Strengths and weaknesses

Regarding data collection, the sample used both serves as a strength and a weak point. The size of the sample is quite small, having only been collected from one department at an otherwise very large company. This correlates to the discussion in 3.5 that concerns transferability. However, the data was collected through observation of meetings at the company, not only communicated by participants of said meetings. The latter can be seen as a strength since the mapping of the meeting process was based on data collected by the authors themselves.

The report aimed to serve as a template for better practice when conducting hybrid meetings. It does however fall short to some degree. As has been established previously, the possession of knowledge rarely manages to implement change on its own. For the template to be really beneficial, the company would need to drive the process of change on their own. The report would serve as one of the ground pillars in the said change process.

The greatest strength of the research might be the level of awareness it has raised throughout the process. As has been discovered through personal communication, the employees who participated in the study have been found to take an interest in how to create more efficient meetings. Several topics discussed in the report were observed to be frequently discussed among employees, a change which was seen during the same period as the creation of the report.

7.3 Future research

Our recommendations for future research are to conduct similar research on a larger scale within Ramboll and for example to look deeper into how different leadership styles and work cultures could affect how meetings are conducted. Additionally, to team up with Ramboll in an effort to implement change regarding the standardisation of meetings. The structure of what change could be implemented has through this report been established, the question of how the implementation is made should arguably be the next step. Furthermore, conducting similar studies in other organisations, both within the construction industry and outside of the industry, would enhance the understanding of how meetings are conducted through comparison at a larger scale.

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A

Appendix

Förberedelser

Vilka förberedelser genomför du vanligtvis inför möten? (dagen innan, timme innan, minuter innan?)
Skiljer det sig i hur du förbereder er inför ett ‘vanligt’ möte jämfört med hybrid eller digitalt?
Upplever du att andra förbereder sig mer eller mindre när de är med via länk jämfört med om de är på plats?
Skulle du påstå att hybridmöten generellt är längre eller kortare än vanliga möten?

Ledarskap/Ledning

Vem bestämmer vilken typ av möte som ska hållas? Vilka kriterier baseras detta på?
Vilka skillnader finns i ledning av ett möte om man jämför hybrid, digitalt, vanligt?
Vad är viktigast att tänka på för ett effektivt leda ett hybridmöte?
Vilken grupp i hybridmötet är lättare att hantera, sett till om som ledare är på plats eller via länk?
Hur ändras detta när majoriteten är på länk vs majoritet på plats?
Vet man alltid vem som leder ett möte? (Ex. internt möte utan chef)
Vad anser du om mängden möten? (För få, för många, lagom) Varför tycker du detta?
Har du upplevt att det har blivit fler eller färre möten under en arbetsvecka de senaste 5 åren? Varför tror du?
Hur ställer du dig till mötesfria dagar?

Engagemang/Delaktighet

I ett hybridmöte, känner du dig mest delaktig på plats eller via länk?
Känner du dig mer delaktig om alla är på länk än endast några?
Känner du dig mer eller mindre delaktig om alla är på plats?
Om du leder några möten hybridmöten, hur upplever du engagemanget?
Hur bär du dig åt för att se till att alla är delaktiga?
Har du någonsin upplevt att du deltagit i ett möte via länk där någon annan, med samma kompetens, skulle kunna deltagit på plats istället för dig?

Digitala verktyg

Vilka digitala verktyg används under och för möten?
Vilka funktioner används ofta vid hybrid möten? (Delar skräm, ritat etc)
Vilka funktioner är frånvarande i möten som du tror hade underlättat?
Är användandet av kamera viktigt vid ett hybridmöte enligt dig?
Placering av kamera, från sidan eller rakt på? Gör det skillnad?
Upplever du att man mindre eller mer frekvent blir avbruten under ett hybridmöte än andra typer av möten?
Upplever du att det ofta förekommer problematik med tekniken? Varför ser det ut på det här sättet?
Har du sett någon utveckling?

Övrigt

Beskriv ett 'bra' och effektivt hybrid möte i egna ord. (Ex 4 med på länk, ett rum med 5 och ett rum med 2?)
Vad har vi inte diskuterat idag som berör hybridmöten som du skulle vilja ta upp?
Något som verkligen inte fungerar, något man behöver börja göra, något som ni ska fortsätta med?
Upplever du att det finns en språkbarriär?

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