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Making Sense of Contractual Disruption in Large-Scale Infrastructure Projects

Master's thesis in Design and Construction Project Management

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CHALMERS UNIVERSITY OF TECHNOLOGY
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ABSTRACT

When organizing large-scale infrastructure projects, contractual arrangements are key as they provide stability and a structure for coordination and responsibility. When they are disrupted, for instance through a termination, the effects go beyond formal changes and shape how projects function in practice. This thesis intends to investigate how project actors interpret such a disruption and make sense of roles, responsibilities, and collaboration in a project environment where a termination has occurred and the project is reconfigured with a new project organisation. A sensemaking lens is applied in this study, drawing on Weick et al. (2005), to examine how meaning is constructed in an ambiguous setting. A qualitative case study was conducted of the E05 Korsvägen, where a turnkey contract was terminated during the construction phase. Semi-structured interviews were conducted to collect empirical data, where key actors from both client and consultant organisations took part. The findings illustrate that the contract termination was experienced as systemic organisational rupture rather than an isolated event of contractual change. It created prolonged and uneven uncertainty across the project organisation, where actors continuously interpreted their roles and the situation based on prior experiences, access to information, and their positions. The formal reconfiguration did not automatically translate to clearly defined roles and responsibilities. Instead, they were interpreted and enacted in practice, often depending on perceived capability rather than contractual definition. This thesis focuses on the more social aspect of complex project organizing and highlights how a contractual disruption leads to ongoing interpretative work rather than immediate stabilization. Changes in terms of governance alone are insufficient to restore order, as organizing depends on continuous sensemaking, interaction, and alignment across the entire project organisation.

Key words: Contractual disruption, Complex project organising, Sensemaking, Roles & responsibilities, Collaboration. Infrastructure, Sweden

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1 Introduction

Infrastructure projects involve multiple organisations working together under contractual arrangements that define responsibilities, risks, and coordination mechanisms. These arrangements are intended to provide stability and predictability in project delivery. However, unexpected events may disrupt these structures and force actors to reorganise how the project is delivered and managed.

1.1 Background

Large-scale infrastructure projects are characterized by high levels of technical and organisational complexity. Multiple organisations are brought together, such as public clients, consultants, and contractors within temporary project structures that must function as a unified whole. People operate under different logics in terms of different priorities, organisational and professional backgrounds. Because of this, coordination becomes a challenge and requires constant alignment between organisations (Winch, 2014). Research on megaprojects is extensive and well-explored. Despite this, much of the literature has traditionally focused on performance outcomes such as delays and cost overruns (Flyvbjerg, 2002; Flyvbjerg, 2014). These studies provide important insights into general terms. However, they fail to provide an understanding of how organizing unfolds in practice. In a real-world project context, actors must interpret uncertainty, negotiate priorities, and coordinate actions. This illustrates that project complexity is not only structural but also relational and interpretive (van Marrewijk et al., 2008; van Marrewijk et al., 2016).

Collaboration in such projects is therefore not considered to be stable but instead it is negotiated along the way. Different values and perspectives need to be taken into account, and this shapes how events are interpreted and how they interact with each other. As a result of this, shared understanding across the entire project organisation must be actively constructed over time rather than assumed (Hietajärvi & Aaltonen, 2018). Adding to this, as if it wasn't complicated enough, if a disruption occurs in such a project, this complexity becomes more evident. To structure responsibilities and coordination, contractual arrangements play a central role. When these are fractured, for example by contract termination, the effects stretch beyond legal or technical aspects. In fact, coordination structures, relationships, and shared understandings can destabilise and ultimately leading projects to reorganise while work continues in parallel (Riveros et al., 2022; Coleman et al., 2025). When this happens, it often creates a sense of uncertainty regarding roles, responsibilities, and collaboration. It might also intensify differences in organisational perspectives and interpretations (Cruz & Marques, 2021; Af Hällström, 2024).

A project where a contract termination has occurred provides the ultimate setting for examining how organizing unfolds in practice. Therefore, an in-depth case study of the E05 Korsvägen sub-project within the West Link Project is a valuable and highly relevant setting for studying this matter. Unlike everyday challenges that happen in projects of this character, the contract termination represents a major break that changes the structural and relational foundations of the project. Often, project actors remain involved after the disruption but must operate under new conditions and have to reinterpret and make sense of their roles and relationships.

Research on megaproject complexity and disruption has grown in recent years Weick et al. (2022). What is lacking is an understanding of how actors interpret and respond to contractual disruption as it unfolds in practice. Instead, existing literature focuses on governance decisions and performance outcomes (Flyvbjerg, 2014; Cruz & Marques, 2021), with less attention given to how people make sense of disruption, reconstruct roles and responsibilities, and re-build collaboration when projects continue under a new constellation. To address this gap, this thesis investigates how organizing and sensemaking unfolds in practice following a major termination of the contract in a large-scale infrastructure project. Theory on sensemaking provides a relevant lens, as it describes how people interpret events and construct meaning under uncertainty (Weick et al., 2005). This lens makes it possible to understand how organizing continues in complex projects when established structures are disrupted.

1.2 Aim and Research Questions

This thesis aims to examine how project actors make sense of roles, responsibilities, and collaboration in a large-scale infrastructure project where the turnkey contract was terminated during construction. The researchers intention is to capture how people interpret these changes and how the process of organizing continues in a setting which is characterized by uncertainty, reconfiguration, and shifting governance structures.

Formal clauses within the contract is not the focus, instead the thesis intends to understand how the reconfiguration of the contract is experienced and interpreted in practice. Also, how actors position themselves, how they understand expectations, and how relationships between organisations are reconstructed as a response to disruption. By looking into these interpretations, the study contributes to a greater understanding of complex project organizing when established structures are being challenged and reorganised temporarily.

To create the prerequisites to investigating this aim, the research questions as follows have been formulated:

RQ1: How did project actors interpret contractual disruption and make sense of the uncertainty created?

RQ2: How do project actors make sense of roles, responsibilities, and collaboration following contractual disruption in a large-scale infrastructure project?

RQ3: How do project actors interpret and reconstruct collaboration within the reconfigured setting, and where do their interpretations align or diverge?

1.3 Limitations

There are several limitations that should be considered when interpreting the findings. The research is based on a single case qualitative study of the E05 Korsvägen project. This approach makes it possible to create and get a rich and context-sensitive understanding of sensemaking processes, varying narratives, and collaboration within a complex infrastructure project. However, it also limits the possibility to transfer the

findings and outcomes to other projects with different contractual arrangements and organisational conditions. Another aspect that needs to be considered is the one of the time constraints of a master's thesis. Therefore, the focus of the study is on project actors' retrospective accounts of the contractual disruption and the subsequent introduction of the temporary critical work contract. While this approach limits the researcher's ability to capture interpretations as they occur, it also allows them to explore how actors reflect upon and reconstruct their understanding of roles, responsibilities and collaboration within the reconfigured project setting. The interviews may have been influenced by memory bias and post-hoc interpretations, however they also provide insights of value into how project participants make sense of disruption and organisational change retrospectively. As the project is still ongoing, participants' interpretations may continue to evolve as the project develops further.

The study mainly focuses on perspectives of actors representing the client and the design consultancy, both of which have been involved in the project since the beginning. Therefore, the findings reflect central coordination perspectives, rather than representing all actors or addressing legal aspects of the contracts. The empirical data is based on a limited number of interviews with project actors with central positions. Even though these individuals offered perspectives that were strategically informed, their accounts may not reflect experiences across all organisational levels fully. It may have led to a stronger representation of managerial or dominant project narratives, while perspectives from more operational roles are less visible. More critical perspectives may also be underrepresented as not all stakeholders were willing to participate in the study. Lastly, the study relies heavily on interviews. The absence of observations in real-time and project artefacts indicates that key socio-technical drivers were not fully examined. Even though the project has been able to continue to some extent, this was not of interest to observe since the interest of the study lies in investigating the processes and challenges within the original projects' scope. Furthermore, the focus on one phase of the project lifecycle suggests that future longitudinal research could further explore how sensemaking and project narratives evolve over time.

1.4 Company Collaboration

This thesis was conducted in collaboration with an engineering consultancy that has been one of the main stakeholders in the project, both before and after the contract termination. The collaboration provided access to an ongoing project setting and enabled the identification of key project actors for the interview study.

2 Theoretical Background

2.1 Megaprojects and Large-Scale Infrastructure Projects

2.1.1 Defining Megaprojects

Megaprojects are defined as large-scale and complex projects amounting to a budget of one billion USD or more (Flyvbjerg, 2017). The total delivery time for the project takes multiple years, affects millions of people, and is formed by public and private interest. As per the definition above, megaprojects can be described as aiming to change the structure of society, or “trait making”, meaning that they are intended to reshape society and the built environment, rather than being small sized projects scaled up. Because of their size and complexity, they involve significant financial risk, technical challenges, uncertainty, and competing stakeholder expectations. Their public visibility also means that media attention and political scrutiny can influence decision-making and affect project performance outcomes.

As megaprojects previously mentioned span over a long duration of time, these temporary partnerships become “long-term” organisation between multiple permanent actors, such as government agencies and private firms, to collaboratively deliver long-term public value (Turner, 2009). This configuration of temporary, “long-term” partnerships of permanent actors further adds to their complexity regarding governance, collaboration, tensions between stakeholders, and accountability.

2.1.2 Performance Challenges in Megaprojects

Megaprojects are recognized in literature for performance challenges, namely cost overruns and lack of benefiting effects on society. As discussed by Flyvbjerg (2002), these issues are not accidental or isolated, but rather persistent across sectors and national contexts. In their international dataset of infrastructure projects, 86% saw a budget increase from their initial estimate. The findings in newer studies confirm that this trend persists as an issue, not slowing down with improved forecast techniques (Flyvbjerg, 2014).

Cantarelli et al. (2014) introduce a concept named “Lock-in” to describe how early commitment in a project can develop into escalating commitment, eventually reaching a point of no return. At this stage a lock-in scenario emerges, where too much resources is invested to quit. Indicators of lock-in being present in the project can be identified by sunk costs, escalating commitment, justification of prior decisions, and inflexibility and refusal of other alternative solutions. In comparison, Flyvbjerg (2002) emphasises strategic misrepresentation and political incentives as explanations of cost overruns. Cantarelli et al., (2014) categorises the explanation in four main groups, technical, economical, psychological, and political. Their analysis suggests that these groups often interact instead of independently causing cost overruns in projects. For instance, technical uncertainties in combination with early cost estimates with financial incentives may cause optimism bias, reinforcing underestimation of costs ultimately leading to cost overruns.

Van Marrewijk et al. (2016) describes governance in megaprojects as the ongoing coordination and negotiation of roles, responsibilities, and authority between multiple actors, rather than something that is explicitly fixed by formal structures. Governance in megaprojects therefore extends beyond formal project management structures and

must be understood as a process shaped by competing interests, public accountability, and external expectations (van Marrewijk et al., 2016). Megaprojects therefore operate as political arenas in which decisions are influenced not only by technical considerations but also by legitimacy concerns and institutional pressures.

Institutional logics further contribute to this complexity by introducing different value systems into the governance process. Public sector actors are typically guided by principles of transparency, accountability, and longer-term societal benefit, whereas private actors prioritize efficiency, profitability, and risk management. These logics shape how decisions are framed and justified at a governance level, influencing priorities, acceptable trade-offs, and perceptions of success (van Marrewijk et al., 2016). As a result, governance involves balancing these competing logics while maintaining political and societal legitimacy.

The role of the project owner is central in managing these tensions. As the primary actor responsible for aligning project objectives and interests with societal expectations, the project owner must navigate political pressures, ensure accountability, and coordinate across stakeholder groups. However, this role is constrained by external influences, including political agendas and institutional requirements, which limit the extent to which decisions can be based solely on technical or economic considerations (Flyvbjerg et al., 2016).

2.1.3 Megaprojects as Multi-Actor Systems

As megaprojects involve several stakeholders (Marrewijk et al., 2008), combining permanent organisations into temporary “permanent” organisations to deliver a product (Flyvbjerg, 2014). This creates a unique complex situation where the client, contractor, and design engineer must coexist and collaborate, whilst none have full control over the project (Af Hällström, 2024). This inherently makes coordination and collaboration difficult as well as increases the dependence on collaboration across organisational boundaries. All actors are responsible for different stages of the project, creating a separation in routines and behaviors created separately by each actor’s interpretation of what is to be delivered.

Each organisation acts according to its own routines, practices, and professional norms that are shaped by its institutional context independently of the project. As a result, actors might approach the project with differing assumptions about roles, responsibilities, and expected outcomes. Marrewijk et al. (2008) shows how such fragmentation can lead to misalignment between actors, particularly when governance structures fail to establish clear authority or shared direction between parties. They further highlight how weak or ambiguous power structures can contribute to dysfunctional project dynamics, where actors prioritize their own organisational logic, rather than collective project objectives.

This fragmentation is further reinforced by conflicting institutional logics. Public actors are typically driven by political accountability, transparency, and long-term societal value. Whereas private actors operate under commercial pressures focusing on efficiency, profitability, and risk management. These differences in logics shape how actors interpret contractual obligations, manage risks, and prioritize decisions. Clegg et al. (2017) discusses this as “arenas of power” within megaprojects where these differences between institutions are negotiated, often through ongoing processes

of sensemaking. Rather than solely being resolved through formal structures, tensions between actors are constantly reproduced and managed through interaction and interpretation.

2.2 Complex Project Organising

2.2.1 Foundations of Complex Project Organising

Organising large-scale infrastructure projects differs radically from organising less complex and more routine projects. As outlined by Winch (2014), projects consist of several permanent organisations which are assembled temporarily in a project coalition; they operate under high uncertainty, long time spans, and powerful interdependencies. A useful starting point for understanding this complexity is Winch's (2014) framework of the three domains of project organising. It consists of (1) owners and operators, (2) projects and programs, and (3) project-based firms. Figure 2.1 below illustrates these domains. The first domain defines the strategic purpose and expected value of the project. The second domain of projects translates this purpose into a temporary organizing structure responsible for delivery. Lastly, the third domain of project-based firms consists of contractors, consultants, and suppliers whose main capability is organizing and executing projects. At the interfaces between these domains, this is where complexity arises in particular, where governance, commercial incentives, accountability, and mechanisms for coordination must align across the boundaries of the diverse involved organisations.

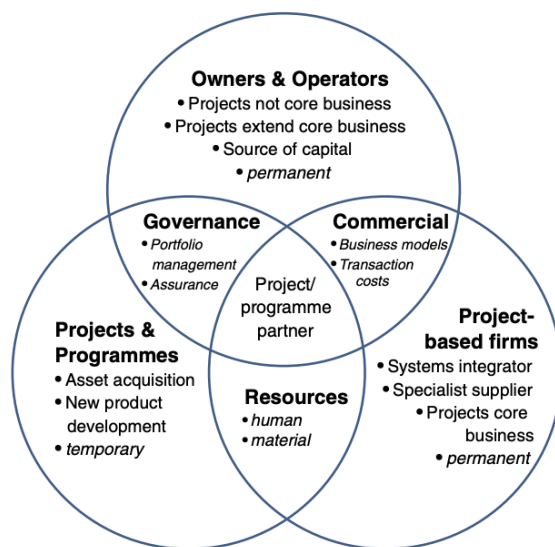


Figure 2.1 Illustration of the three domains of project organising (Winch, 2014).

Strategic project organising further emphasizes that projects are a subject for value-creation in the long-term and development of infrastructure, not only isolated exercises of high technical complexity (Winch and Sergeeva, 2022). The project owner must therefore possess capabilities of strategic, governance, and commercial character to define the “right project, not only ensure that it is delivered efficiently. As seen at the interface between the client domain and the project delivery domain, governance plays an important role in coordinating authority, responsibilities, and decision-making across the different domains of project organising. Simultaneously,

project-based firms operate within their own logics of management, capabilities, performance metrics, and their standardized procedures. This is described by Winch et al. (2022) in the Research Handbook on Complex Project Organizing. This clash of different organisational rationalities often creates tension over priorities, risk, and authority. Project participants often belong to different companies, professions, and institutional contexts. Contextual and technical uncertainty strengthen this ambiguity and requires continuous adaptation and coordination rather than strictly following predefined plans.

The structural interdependence, uncertainty, and fragmentation inherent in a megaproject setting create the circumstances under which collaboration challenges and sensemaking become central. This foundation provides the basis for examining how project actors interpret and navigate complexity in a real-world context.

2.2.2 Governance, Roles and Accountability

Within the setting of a complex infrastructure project, governance provides the architecture through which authority, responsibility, and decision-making are structured and exercised. Governance compasses the policies, roles, accountability mechanisms, reporting structures, and control systems that guide the project from strategic conceptualization to actual execution. This is outlined in the Research Handbook on Complex Project Organizing by Winch et al. (2022). In large-scale projects, the skill of governance is especially important due to the diverse amount of project actors, long time horizons, and financial and social exposure. A crucial dimension of governance concerns who decides what, and which mandate they have. Contractors and consultants are responsible for designing and executing the project, while the project owner has the ultimate strategic responsibility for ensuring that the project is in line with the objectives of broader organisational and societal character (Winch et al., 2022). A lot of pressure is therefore on the owner's capabilities concerning strategic, commercial, and governance issues. If mandates, clashing oversight structures or insufficient owner capacity is unclear, this may create ambiguity in accountability and halt the overall system of governance.

Projects of this character also face major tensions between control and autonomy. Governance methods which are formal, such as contracts, reporting systems and performance controls, are designed to secure accountability and manage risk. This might however restrict flexibility and constrain inter-organisational collaboration if the control is too rigid. Governance within this type of inter-organisational settings therefore requires balancing contractual control with relational coordination, especially during periods when uncertainty is high and unforeseen events arise (Winch et al., 2022). Since projects of this type are temporary coalitions of permanent organisations (Winch, 2014), governance operates across multiple organisational boundaries. A distribution of authority is made, still accountability very often remains concentrated at the level of the owner. To understand these arrangements of governance is crucial for analyzing how participants interpret their roles, how they justify decisions, and how they navigate the challenges within complex project organizing.

2.2.3 Inter-Organisational Organising and Collaboration Tensions

According to the Research Handbook on Complex Project Organizing by Winch et al. (2022), governing relationships requires balancing formal control (contracts, reporting structures and accountability) with coordination mechanisms based on trust, dialogue and a shared problem-solving. This balance often creates tensions between control and collaboration. Recent studies within the field of construction project organizing e.g., van Marrewijk et al. (2016) shows that megaprojects are very often fragmented into organisational and professional subcultures. This contrast can lead to misunderstandings, mistrust among project actors and in worst case dysfunctional owner-contractor relationships. Instead of creating a unified project organisation, there is a risk that actors will prioritize their own mandates and contractual positions.

This literature demonstrates that collaboration in projects with high complexity is shaped by ongoing tensions between coordination and control, competing interests, and fragmented project cultures. To get an understanding of how actors make sense of inter-organisational relationships, these conditions are central.

2.2.4 Temporal and Strategic Structuring in Projects

Organizing complex projects is not a static process, it is unfolded and reshaped over time. Projects of this character evolve through phases marked by shifting priorities, contractual arrangements, and stakeholder configurations. To understand this dimension of temporality, it is important to be able to explain why certain patterns of organizing become stabilised and why changes can be hard to achieve once a project has progressed beyond key decision points. The concept of temporal structuring that shows this dynamic is presented by Winch and Sergeeva (2022), where they argue that projects are actively organized through narratives about the past, present, and future. A construction of timelines, milestones, and turning points is made by project actors that guide actions but also justify decisions. In light of this, organizing is not solely about formal structures but also how time is interpreted and enacted. Decisions made early on, strategies for framing, and expectations shape subsequent coordination practices and influence how later disruptions are understood.

This perspective of temporality is closely associated with concepts such as path-dependency and lock-in. An escalation of commitment may happen even when emerging information suggests that alternative paths would be more viable. Collectively, these perspectives show the importance of how early structuring decisions and strategic commitments pave the way for later possibilities for action. They also help to explain why major complex projects can become difficult to redirect and why organizing under changing contractual or institutional conditions may create tension. By briefly integrating temporal and strategic structuring into the theoretical background, complex project organizing can be understood not solely as a configuration of actors and roles, but as an evolving process shaped by cumulative decisions, interpretations and commitments over time.

2.2.5 Organising as a Process of Sensemaking

As emphasized previously, complex project organizing is often described through formal structures, governance arrangements, and contracts. However, there is another

dimension to it; it can also be seen as an interpretative process. Utilizing the insights described by Weick et al. (2005), organizing can be understood as ongoing sensemaking, where people construct meaning around ambiguous events, shifting roles, and challenges that is emerging. The structures created when organizing are in this sense not only formal designs, but they are also acted upon and reproduced through how actors interpret and respond to situations.

Within the setting of a large-scale infrastructure project, characterised by uncertainty and interdependence, this interpretive dimension becomes especially crucial. As outlined by Qin and Green (2022), organising unfolds through practices at the micro-level. Events such as meetings, negotiations, and daily coordination, this is where roles and expectations are continuously clarified and renegotiated. In addition to this, Arda et al. (2024) shed a light on how narratives shape how actors frame responsibilities, disruptions, and collaboration over time.

Seen from this point of view, challenges regarding collaboration are not only structural or contractual issues, but also interpretative phenomena. How actors make sense of and understand changes in governance, responsibilities, and relationships influences hugely how organizing unfolds in practice. This understanding gives a solid foundation for the final section in the theoretical background, where the concept of sensemaking is developed as the most vital analytical lens of the thesis.

2.3 Collaboration in Large-Scale Infrastructure Projects

2.3.1 Defining Collaboration

The concept of collaboration is broadly seen as a key mechanism when managing large-scale infrastructure projects, where several interdependent organisations must work together to reach shared project goals. Within these contexts, collaboration refers to structured forms of interaction between actors who coordinate activities and engage in collective decision-making. It also refers to a shared responsibility for project outcomes, while still representing their own organisational interests (Thomson & Perry, 2006). Collaboration is widely recognized as an ongoing process that develops through continuous interaction and negotiations between actors rather than being in a static condition. Within the field of collaborative governance, literature often describes collaboration as a collective process through which private and public actors together address problems of high complexity that cannot be managed by a single actor alone. As defined by Ansell and Gash (2008), collaborative governance is a decision-making process where consensus is prioritized involving several stakeholders.

It is also important to distinguish collaboration from other similar concepts such as coordination and cooperation. Coordination focuses on organizing tasks and managing interdependencies, while cooperation usually involves more informal and voluntary alignment of activities. In contrast, collaboration implies deeper engagement where actors together define problems, share information and work hand in hand to create solutions (Thomson & Perry, 2006). Collaborative processes are crucial for managing complexity and uncertainty in these project settings, as outlined by (Drouin et al., 2018). When contractual arrangements are disrupted or reconfigured, there might be a need to renegotiate the collaborative relationships in the new setting while continuing to coordinate project activities.

2.3.2 Institutional Complexity and Collaboration Challenges

When collaboration occurs in the context of a large-scale infrastructure project, it is often challenged by the presence of multiple firms. In fact, public clients, consultants, contractors, and other stakeholders enter the project environment with their own objectives and governance structures. Because of this, collaboration is not something that emerges automatically but is something that must be negotiated between actors who see the project through different institutional lenses (Matinheikki et al. 2019). Within projects as referred to in this thesis, project participants may prioritize different aspects of project performance, namely cost efficiency, technical quality, or political accountability. These competing logics can create tensions in collaboration according to Af Hällström (2024), as actors frame issues, disruptions and solutions according to their own predetermined perspectives.

Additionally, people representing their organisations may evaluate project goals and risks through different value systems, which ultimately can lead to a lack of shared understanding. Studies within the field of construction project organizing further highlight the presence of organisational fragmentation and subcultures in these megaproject environments. In projects of this character, the organisations involved are loosely connected units with sharp practices and norms, which may be a contributing factor to poorly functioning collaboration and coordination (van Marrewijk et al., 2008). With this in mind, collaboration in megaprojects should be understood as a negotiated process shaped by institutional pressures, professional cultures, and alternative views on project objectives.

2.3.3 Governance, Trust and Collaborative Mechanisms

Another aspect to consider in terms of collaboration in these project settings is that they are shaped by governance mechanisms that structure how different organisations coordinate their activities and responsibilities. These frameworks often combine contractual aspects such as formal agreements defining roles, risks, and accountability, with more soft parameters, relational mechanisms that support collaboration between actors (Engelhart et al., 2023). Seen from this perspective, trust is seen as a crucial element. Trust enables effective collaboration, as it facilitates information sharing, collective problem-solving, and the ability to manage interdependencies between organisations (Walker & Lloyd-Walker, 2023). Simultaneously, a clear structure of governance is a must to keep control and ensure accountability.

2.3.4 Emergent Collaboration and Collaborative Identity

How people collaborate can not only be understood as the outcome of formal governance structures or contractual arrangements. Research instead suggests that collaboration often emerges through ongoing and shared meaning-making between project participants. This is among other articles within the field outlined by Hietajärvi and Aaltonen (2018), where they describe this process as the development of a collaborative project identity. In a project setting where a collaborative project identity is created, people gradually construct a shared sense of purpose, values, and working practices that extend beyond the boundaries of their individual organisation.

Moreover, conducted studies on collaboration in infrastructure projects emphasizes that actors may interpret overarching project goals, responsibilities, and collaboration practices differently depending on cultural and organisational backgrounds. This is outlined in a study by (Fellows and Liu, 2016). Resulting from this, collaboration is something that becomes a socially constructed and evolving process, shaped by how actors together interpret their situation and align their expectations (Rönndahl et al., 2025). From this point of view, mechanisms of collaboration are actively created and sustained throughout the project lifecycle, rather than assumed to just exist through formal structures. Collaboration is best understood as a dynamic and interpretative process shaped by identity, institutional logics, values systems, and sensemaking practices.

2.4 Disruptions and Contractual Termination

2.4.1 Understanding Disruptions in Infrastructure Projects

Disruptions can be described as events or processes that largely change the expected course of project delivery. When a disruption occurs, project actors are required to respond to the changing conditions. Disruptions may take different forms, it could be changes in terms of contracts, organisations, financial matters or technical changes, and they are often interconnected rather than occurring in isolation. As outlined by Flyvbjerg (2014), disruptions are not unusual but instead relatively common features of project development.

The more complex a project is, the more likely it is that a disruption will occur. This is linked to the fact that in these types of projects, requirements evolve, challenges regarding governance exist, and external pressures can affect project performance and stability. Infrastructure projects that have been examined in recent research highlight how risks related to financing, stakeholder alignment, and project delivery may contribute to major changes or even project cancellation (McCarthy et al., 2020). Likewise, recent studies on design-build projects illustrate that issues, including contractual disputes, performance deficiencies, and expectations that don't align can lead to early contract termination (Riveros et al., 2022).

A major change in contractual arrangements can be understood as a specific type of disruption that reshapes the entire project organisation and how the project is governed. When such a disruption becomes reality, and the contractual conditions change, previously established roles, responsibilities, and coordination mechanisms may no longer hold. This requires project participants to adapt to a reconfigured project setting. It introduces significant levels of uncertainty and ambiguity, as people are forced to figure out how work should be done in practice.

2.4.2 Contractual Termination and Renegotiation

Contract termination may happen in various ways, including early termination of agreements, partial termination of specific scopes, or the activation of step-in rights where the client or a third party takes over responsibilities to make sure that the project is able to continue (World Bank, 2021). Deficiencies in performance, disputes, financial challenges, or public interest can often trigger such actions, as outlined in a study by (Cruz & Marques, 2021).

The termination itself does not mean the end of the project, but rather a transformation of its contractual and organisational configuration. Scholars show that projects may continue through renegotiation processes, where a revision is made on the existing agreements, or by introducing new contractors and temporary arrangements to keep the project moving (Coleman et al., 2025). Guidelines describing how to act in practice further emphasize what is required from people in such a reconfiguration. Project actors must redistribute responsibilities, establish new governance structures and find a way to stabilise ongoing work under the new conditions (Abu Dief et al., 2016).

Contractual arrangements should be seen as a living organism which is dynamic rather than fixed. While the actual processes of termination and renegotiation represent formal and legal change, they also affect the organisational aspect. In projects of this scale, where collaboration mechanisms are already complex, a major disruption of contractual arrangements can further complicate how coordination, relationships, a collective decision-making unfold in practice.

2.4.3 Organisational Consequences of Disruptions

When the project is fractured in one way or the other, it not only changes the formal structures but also has significant implications for how work is organized and coordinated in practice. As outlined by Coleman et al. (2025), projects often require a reorganisation of roles, responsibilities, and governance structures. This may involve the introduction of new actors and a redistribution of existing mandates. There is a risk that such changes can damage inter-organisational relationships which are well-established and in a worst-case scenario, it might even lead to breakdown or a complete restructuring of previous developed collaboration patterns.

Coordination relies heavily on stable relationships and shared understandings. A major shift of this character can therefore increase uncertainty further for project actors, which no one wishes for. On top of this, institutional complexity further complicates things, where project participants operate under a variety of logics, priorities, and expectations. This aspect becomes more visible during periods of change (Matinheikki et al., 2019).

Consequently, collaboration becomes fragile and must often be re-established under new conditions. In the article by Rönndahl et al. (2025), it is described that when this happens, people are required to interpret evolving roles, relationships, and expectations. A major contractual re-arrangement creates a project environment where organizing becomes closely linked to processes of meaning-making and sensemaking.

2.5 Sensemaking of Collaboration in Large-Scale Infrastructure Projects

2.5.1 Defining Sensemaking

Sensemaking occurs in every individual's daily life constantly interpreting and making sense of interactions and events. "Sensemaking involves the ongoing, retrospective development of plausible images that rationalize what people are doing" (Weick et al., 2005). Similarly to everyday activities, sensemaking in organisations are set in motion when the perceived reality deviates from expectations, or when they

lack a clear course of action. Sandberg et al. (2015) describes sensemaking as a continuous loop of constant actions, retrospectively making sense of said actions, performing new actions, making sense of their new actions, and so on in a closed loop of constant actions and sensemaking. He further connects sensemaking to social and preservation of identity as Weick (1995) suggests that sensemaking collapses when identity becomes unclear, social cues and contexts are ambiguous, retrospective interpretation becomes more challenging, events are difficult to define, plausible interpretations are strained, and opportunities for exploratory action become restricted.

Sensemaking can therefore be understood as both a social and cognitive process that unfolds through interaction, language, and interpretation. In project-based environments, it involves the continuous construction of meaning through communication and shared narratives, enabling actors to understand their roles and coordinate actions (Rönndahl et al., 2025). Sensemaking is often triggered by disruptions or unexpected events, interrupting ongoing activities and creating ambiguity. This causes actors to reinterpret their situation, forcing sensemaking as to adapt to the developed situation. In this context, sensemaking is used as a mechanism for reducing uncertainty and enabling coordinated action, particularly in complex and dynamic environments such as large-scale infrastructure projects.

2.5.2 Collective Sensemaking in Complex infrastructure Collaboration

In large-scale infrastructure projects, sensemaking becomes a collective and relational process where collaboration is constantly constructed and negotiated upon. In collaborative project delivery models, actors engage in sensemaking to interpret their roles, responsibilities and interactions with one another, particularly when complexity and uncertainty emerge (Rönndahl et al., 2025). Sensemaking in such settings promotes interactions between actors, as sharing narratives and mutual understandings enable coordinated actions to be executed between organisations. Rönndahl et al. (2025) emphasizes that actors “collectively navigate uncertainties” through ongoing interpretation and communication showing that collaboration is continuously shaped through the sensemaking processes. In large infrastructure projects, where multiple parties are involved having differing interests, expertise, and organisational affiliations, this becomes particularly relevant as they must align their actions.

This collective dimension of sensemaking is particularly important in project environments characterized by fragmentation and distributed responsibility. As projects are carried out through temporary collaborations between multiple organisations, no single actor possesses a complete overview of the project. Instead, understanding emerges through ongoing communication, where actors share interpretations and negotiate meaning to coordinate their actions. Sensemaking thus becomes a relational process, where collaboration is not predefined but continuously constructed through interaction (Weick et al., 2005).

From an interpretative perspective, actors do not approach situations as neutral observers but interpret them based on prior experience and organisational context. Sandberg & Tsoukas (2015) argue that individuals construct meaning through practice and situated experience, rather than simply processing information objectively. This

means that even when actors are exposed to the same information, their interpretations may differ, leading to variations in how problems and solutions are understood. In multi-actor settings, coordination therefore depends on the ability to establish sufficiently shared interpretations, rather than complete agreement. Collective sensemaking can, in this regard, be understood as the process through which actors align their understanding to enable coordinated action despite underlying differences.

The temporary nature of project organisations further reinforces the importance of collective sensemaking. As actors come together for a limited period, they must rapidly establish shared ways of working while simultaneously managing evolving project conditions.

2.5.3 Disruptions, Interpretive Cues, and Power dynamics in Sensemaking

While sensemaking in projects is an ongoing process, certain situations intensify the need for interpretation and coordination. In complex infrastructure projects, disruptions such as delays, technical challenges, or changes in scope create conditions where existing understandings are no longer sufficient. Weick (1995) highlights that sensemaking becomes particularly visible when expectations are interrupted, requiring actors to reassess their situation and construct new meanings. These moments do not simply represent operational challenges, but situations in which meaning must be actively reconstructed for action to continue.

In response to such situations, actors rely on interpretive cues to make sense of what is occurring and determine how to proceed. These cues may include project data, contractual arrangements, past experiences, or signals from other actors, but their significance is not inherent. Instead, cues must be interpreted within context, and their meaning is shaped by the actor's perspective and experience. Gacasan et al. (2016) show that project managers rely heavily on such cues when navigating uncertainty, selectively attending to information to construct plausible interpretations that guide decision-making. This suggests that sensemaking is not purely analytical process, but one that involves judgment and prioritization under certainty.

Interpretation in project environments is therefore inherently subjective. Sandberg & Tsoukas (2015) argue that actors construct meaning through their engagement with practice, rather than simply processing information objectively. As a result, different actors may interpret the same situation in fundamentally different ways. Fellows & Liu (2016) further demonstrate how decision-making in construction contexts is influenced by motivated reasons, where actors interpret information in ways that align with their existing beliefs, interests, or organisational positions. In multi-actors' settings, this creates the potential for divergent understandings of both problems and solutions, complicating coordination and collective action.

Power dynamics play a central role in shaping which interpretations become dominant within the project. As discussed by van Marrewijk et al. (2016), megaprojects can be understood as arenas where actors attempt to influence how situations are defined and understood. Power is therefore exercised not only through formal authority, but also through the ability to shape meaning, frame issues, and direct attention toward interpretations.

Within temporary project organisations, these dynamics are further influenced by the need to establish shared understanding across organisational boundaries. Hietajärvi & Aaltonen (2018) show that collaborative project settings require actors to actively construct a shared project identity, which serves as a basis for coordination and joint action. However, such shared understanding does not emerge automatically but must continuously be negotiated as actors interpret situations differently. This reinforces the idea that sensemaking is both a relation and political process, where meaning is shaped through interaction and influenced by power relations.

3 Methodology

3.1 Research strategy

This study takes an interpretivist perspective, which means that reality is understood as being shaped through people's interactions and interpretations (Flick et al., 2004; Kvale & Brinkmann, 2015). Instead of measuring predefined variables, the study focuses on how project participants themselves make sense of changing roles, relationships, and work practices. A case-study approach was used to allow an in-depth analysis. Furthermore, a qualitative and abductive research approach grounded in sensemaking theory was used (Flyvbjerg, 2006; Flick, 2004; Weick et al., 2005).

The aim was to gather valuable project specific insights by having semi-structured interviews with project actors holding central roles in said project. This allowed participants to reflect on their experiences and interpretations of the disruption in their own terms (Kvale & Brinkmann, 2015). The data sources used included academic literature and interviews, which gave insights into how people interpreted the disruption, constructed meaning under uncertainty, and made sense of roles, responsibilities, and collaboration in the new project set-up.

3.2 Justification for research strategy

The selection of a qualitative, abductive research strategy fits well for this study as it makes it possible to conduct an in-depth exploration of how various project actors interpret and make sense of situations with high complexity. Furthermore, a research strategy with a qualitative approach is well suited when the objective is to understand social processes, meanings, and interpretations rather than to measure variables that are predefined (Flick et al., 2004). Challenges connected to collaboration and sensemaking are in addition a socially constructed phenomenon, therefore methods that capture project actors' experiences and narratives are required. The approach with conducting semi-structured interviews were chosen to get rich and contextual insights into how situations and events were perceived and explained within the project environment. Interviews as such allow researchers to access diverse perspectives from participants and reconstruct processes that may not be visible through quantitative approaches. A decision was made to exclude surveys because responses that are standardized may limit the depth of interpretation required for research with a sensemaking lens.

3.3 Literature Review

The thesis work began with a literature review with the intention to develop an understanding of established research on contractual arrangements, governance, and collaboration within the setting of large-scale infrastructure and construction projects. Particular attention was given to literature addressing the concept of megaprojects and collaboration mechanisms within these project settings. Initially there was also a focus on literature regarding inter-organisational collaboration and uncertainty in temporary project organisations. Then literature concerning contract termination, project disruption, and role reconfiguration was added to the literature review to add another layer and give further depth for the continuation of the study. Academic sources which were considered relevant were mainly identified through databases such as Scopus, ResearchGate, and resources from Chalmers Library. The search strategy

combined keywords related to large-scale infrastructure projects, project governance, sensemaking, collaboration in construction projects, responsibility allocation, and contractual disruption. Additionally, in key articles, the reference lists were reviewed to find other relevant studies and to ensure broad coverage of the field of research.

In alignment with the abductive research approach adopted in this study, the literature review was not treated as a one-off activity but instead it evolved in parallel with the empirical work. As interviews were conducted, new insights emerged, additional theoretical perspectives were introduced to better explain observed patterns in the data. As an example, the lens of sensemaking became relevant as interviewees repeatedly described how they made sense of and interpreted uncertainty, responsibility shifts, and collaboration following the contract termination. Likewise, literature and existing research on project governance and temporary organisations was incorporated as it became clear that formal contractual changes reshaped roles, authority, and coordination practices in ways not fully captured by initial contractual theory alone.

It allowed the study to remain grounded in existing and well-established research while remaining sensitive to the lived experiences and interpretations of actors involved in the project. Resulting from this, the literature review both informed the empirical analysis and was also continuously refined by it, it went both ways to put it more clearly. Therefore, the literature review contributed to a theoretically informed yet empirically driven understanding of contractual disruption and reconfigured collaboration in large-scale infrastructure projects.

3.4 Case Study Research

A single qualitative case study approach is adopted within this study, as it enables an in-depth understanding of complex phenomena situated in their real-life context (Flyvbjerg, 2006). This method suits well when exploring contractual disruption and subsequent reconfiguration of roles, responsibilities, and collaboration in the setting of a large-scale infrastructure project.

The chosen case concerns the sub-project Korsvägen in the West Link project that experienced a termination of the turnkey contract during the phase of execution. Following an uncertain period, the client changed the project delivery model and signed critical contracts with new contractors. The case was selected in collaboration with our internal supervisor at the consultancy firm due to its importance and relevancy for this type of study and the major organisational and contractual changes it entailed. This means that the case has been discussed broadly among professionals within the sector because of the introduction of the critical works contract as well as the huge impact it had on the organisations involved. Even though the study focuses on a single project, this case is an information-rich example that allows the identification of patterns and mechanisms relevant to similar projects facing contractual disruption. A more detailed description of the case and its context is provided in Chapter 4.1.

3.5 Data Collection

In this study, the empirical data is based on interviews with key actors involved in a large-scale infrastructure project that has experienced contract termination. The client moved from a turnkey delivery to an approach similar to traditional delivery where

the client signed separate contracts with the design and contractors. Interviews enable a thorough exploration of how individuals interpret events with high complexity, how they make sense of uncertainty, and how they describe changes in roles, responsibilities, and collaboration within the context of their everyday work before-during-after a major disruption (Kvale & Brinkmann, 2015). It should be noted that the empirical data reflects the perspectives of selected project actors mainly representing the client and the consultant. The data does not capture all organisational viewpoints, particularly those who are no longer involved in the project.

Individuals with decision-making mandates or strategically central positions within the project organisation were chosen. The interviews were held in Swedish, except for 2 interviews held in English. The interview questions focused on exploring expert knowledge about the project context, as well as the project actors' subjective interpretations of the contractual disruption, shifts in responsibility, and collaboration between the involved organisations. This is aligned with Hopf's (2004) description of qualitative interviews. The interviews were crafted to extract participants' perspectives based on their direct involvement and observation of the project. By doing so, it allowed insight into both their professional experiences as well as their processes of sensemaking.

To provide consistency across the interviews, an interview guide of a semi-structured character was developed while it also allowed flexibility to follow up on issues raised by the interviewees. Typically, the interviews began with background questions before moving into questions concerning the contract termination, changes in responsibility and governance, and ending with experiences of collaboration in the new project set-up. To capture nuanced perspectives and lift emerging themes, follow-up questions were developed as the interview continued. The interview questions are added as Appendix I.

Two selection criteria were chosen for the interviewees: (a) interview participants were required to hold some form of decision-making authority, and (b) they needed to have contact and coordination responsibilities with actors outside their own organisation daily. This ensured that interviewees were directly involved in inter-organisational collaboration and were affected by the contractual disruption significantly. The experience of the people was also considered when choosing who to interview, since the study aimed to capture insights from people who have experienced the project before, during and after the disruption. A broad range of roles were represented by the participants, including technical specialists, design managers, and project managers.

Individuals were selected through a purposive sampling strategy, complemented by snowball sampling as interviews progressed (Patton, 2015). In collaboration with the internal supervisor, initial respondents were identified, after which additional interviewees were suggested by participants based on their involvement in relevant decision-making and coordination processes. 17 interviews were conducted, and the data collection continued until recurring themes began to stabilise, and no substantial new insights emerged. At this stage, it indicated an adequate level of empirical evidence for the analytical scope of the study.

The names, specific roles, and identifiable information of the interview participants have been anonymized to protect confidentiality. Project actors are referred to using

pseudonyms (I1-I17). Interviews were conducted digitally through Microsoft Teams, recorded with consent, and fully transcribed via Chalmers AI Portal to support systematic analysis. The interviews had an average duration of 54 minutes, ranging from 29 minutes to 1 hour 38 minutes. In table 3.1 below the interviewees are listed.

Table 3.1 List of interviewees and which organisation they belong to, including date and length of the interview as well as their experience in the project

Interviewee	Organisation/Role	Date	Length	Experience in the project
I1	Client/Technical Specialist	2026-03-09	56 min	5 Years & 5 Months
I2	Client/Design Manager	2026-03-11	59 min	4 Years & 7 Months
I3	Client/Architectural Specialist	2026-03-13	48 min	4 Years & 11 Months
I4	Client/Design Manager	2026-03-13	51 min	6 Years & 2 Months
I5	Client/ Construction Reviewer	2026-03-16	41 min	4 Years
I6	Client/Coordinator Construction Activities	2026-03-16	43 min	3 Years & 9 Months
I7	Consultant/Project Manager	2026-03-19	59 min	10 Months
I8	Consultant/Project Manager	2026-03-19	39 min	3 Years and 7 Months
I9	Client/Design Coordinator	2026-03-20	52 min	5 Years & 9 Months
I10	Consultant/Project Manager	2026-03-24 & 2026-03-30	1 h, 38 min	4 Years
I11	Contractor/Regional Manager	2026-03-26	29 min	6 Months
I12	Client/Design Coordinator	2026-03-27	1 h, 4 min	1 Year
I13	Contractor/Operations Manager	2026-03-30	41 min	6 Months
I14	Consultant/Quality Manager Buildings	2026-03-31	1 h	4 years
I15	Client/Project Manager	2026-04-02	1 h, 2 min	10 Years
I16	Consultant/Design Coordination Manager	2026-04-07	1 h	8 Years
I17	Client/Project Manager	2026-04-09	55 min	14 Years

3.6 Data Analysis

The interview material was analysed using thematic analysis as it enabled recurring themes to be identified and examined across interviews. More specifically, it examined how project participants understood the contract termination, how they redefined roles and responsibilities, and how they interpreted collaboration after the project was reorganised. This approach made it possible to examine how participants interpreted events, not just what happened. This method was applied to this qualitative study with the aim of creating an understanding of meaning-making processes in complex and uncertain project contexts, as outlined by (Braun & Clarke, 2012). The focus of the analysis was on how actors constructed shared and competing

interpretations of the termination and the consequences it had on the organisations involved.

All interviews were audio-recorded and auto-transcribed. Simultaneously, notes were taken to capture the most interesting insights in case they were not captured by the transcription. Following this the transcripts were manually reviewed and corrected to make sure that they were accurate to use in the analysis. To get familiar with the material, each interview was read in full, and parts related to disruption, uncertainty, mandates, roles and collaboration were highlighted. During the progression of the analysis, patterns that recurred began to emerge and this gave rise to preliminary themes. Excerpts that were relevant were organized and coded into a separate Excel document where material was grouped under broader themes. Progressively these got more refined into specific sub-themes. In line with Braun and Clarke (2012), the coding process involved iterative engagement with the data, entailing ongoing comparison and reflection across interviews and organisational positions. This approach enabled the researchers to spot similarities and differences in interpretations among the project participants. An aspect of the analysis was how actors who had been involved for several years described changes over time and how their interpretations aligned with or diverged from those of others. Coding and theme development involved repeatedly comparing individual interview excerpts with the full dataset. Emerging interpretations were refined through this iterative process. The data analysis was conductive through iteration between data and theoretical background as outlined by Braun and Clarke (2012). This process helped clarify and redefine the themes as the analysis progressed. This reflexivity and analytical procedure support the credibility of the results presented.

In relation to the research questions, themes were reviewed and revised throughout the analysis. Some themes were merged, refined, or removed when they overlapped or contributed little to answering the research questions. Themes were not retained solely because they appeared frequently in the material. Drawing on sensemaking theory (Weick, 1995) and qualitative process research (Gioia et al., 2013), themes within the analysis was prioritized that illustrated how people understood and navigated the contractual disruption as a systemic organisational rupture. The resulting themes capture recurring patterns in how roles, responsibilities, and collaboration were shaped by contractual change.

3.7 Sustainability

Infrastructure megaprojects have long-term environmental, social, and economic consequences, putting sustainability as a key concern in their planning and execution. Beyond technical solutions and environmental performance metrics, sustainability in megaprojects is also shaped by organisational processes, governance structures, and inter-organisational collaboration.

This study contributes to the sustainability aspect by examining how sensemaking/narratives among project actors influence decision-making and coordination in a large infrastructure project. By analysing how actors interpret challenges, negotiate responsibilities, and construct shared understandings, the thesis provides insights into the social and organisational conditions that may strengthen or weaken the integration of sustainability ambitions in practice. Sustainability is

therefore approached as something enacted through interaction and collective sensemaking within the project organisation.

3.8 Ethical consideration

In the design and execution of this study, ethical considerations have been central to protect the rights, integrity, and confidentiality of all participants. The research approach follows principles that are established within qualitative research, including voluntary participation, informed consent, confidentiality, and the avoidance of harm, as outlined by Flick et al. (2004). Since the study is of interpretative nature and there is a focus on participants' retrospective accounts of collaboration in a large-scale infrastructure project, special consideration has been taken to make sure that interviewees could share their experiences without risk of professional or personal consequences.

Before their participation, the participants took part of a written information and consent form which outlined the purpose of the study, the research questions, the voluntary nature of participation, and the possibility to withdraw at any time without explanation. It is also very clearly stated that the study focuses on experiences of collaboration and sensemaking and does not aim to address ongoing legal matters or sensitive contractual disputes. As an introduction to each interview, interviewees were again informed about the purpose of the study and were asked explicitly for permission to record and transcribe the conversation. The participants were then offered the opportunity to audit the transcription to make sure that their perspectives were represented accurately. All interviews were crafted to give room for the respondents to speak freely and reflect on their own experiences of the disruption and its consequences.

To achieve confidentiality, the participants are anonymised in the thesis. Information that could be identified, such as names, positions, or organisational details that could reveal identities, have been erased or generalised. Empirical data, including recordings of audio, written transcripts have been stored safely in systems which are password-protected and only accessible to the researchers and supervisors. All collected data will be used only for academic purposes and will be handled in accordance with GDPR and the guidelines of Chalmers. The study also reflects on the student's interpretative role in analysing narratives and acknowledges the responsibility to represent participants' accounts faithfully and respectfully. In addition, attention has been paid to potential biases and the influence of researcher assumptions, recognising that interpretations are shaped through a reflexive process. This includes being aware of how prior knowledge, theoretical perspectives, and preconceptions may influence data interpretation. This is in line with standards of qualitative research outlined by Flick et al. (2004).

3.9 Use of AI

Artificial intelligence (AI) has been used throughout the thesis work as a supportive tool during parts of the writing process. More in detail, AI-based language models such as Grammarly have been used to assist with rephrasing sentences, improving clarity when needed, and improving the overall structure and readability of the text. The reason for using AI was only to support academic writing and not to analyse

empirical data, generate findings, create theoretical arguments, or generate analytical conclusions independently. The content of the thesis has been reviewed critically and revised by the authors to make sure that it reflects their own interpretations, reasoning, and understanding of the literature and empirical data.

Microsoft Copilot was used to a limited extent to support the organisation of qualitative data, e.g. by assisting in summarising interview material and brainstorming ideas for themes during the analysis process. However, all analytical interpretation, coding decisions, and the development of findings were conducted solely by the authors. AI did not participate in or validate the analysis. Chalmers AI Portal was used to get transcriptions from the interviews. To make sure that the transcriptions were accurate and represented what was said during the interviews, the authors went through each transcription and compared it with the audio file to verify and correct. No information that could be considered personal, sensitive or identifiable was entered into open-source AI-platforms and all data handling complied with GDPR and institutional guidelines.

4 Case Study

In this thesis the E05 Korsvägen project is examined in which the turnkey contract was terminated during the construction phase. Following the termination, the client moved away from the turnkey arrangement and adopted a more traditional setup by signing contracts directly with designers and contractors respectively. In this transition period, the client introduced temporary arrangements, referred to as “critical work contracts”, to ensure that essential construction and safety activities could continue while new long-term contracts were procured.

In this context, the client chose to continue working with the design company from the previous arrangement, while new contracts were introduced for other parts of the project. To clarify, the same design consultancy was procured with a ABK09 contract while the new contractors were procured through critical works contracts. This means that the client in new constellation has a bigger responsibility for coordination, decision-making, and overall project delivery compared to the previous turnkey arrangement.

4.1 Project description

The West Link Project is a major railway infrastructure project in Gothenburg, Sweden, contracted and led by the Swedish Transport Administration (Trafikverket). The aim of the project is to increase the capacity of railway traffic, improve reliability, and enhance accessibility to central parts of the city (Trafikverket, n.d.). The construction of three underground stations is included in the project: The Central Station, Haga and Korsvägen, with the last one being the focus of this study (Trafikverket, n.d.).

E05 Korsvägen entails the construction of an underground station and associated tunnel sections in a dense urban environment. The construction of the project began in 2018, with an initial target for completion in 2026 with a pushed completion date to 2030. It was originally procured as a turnkey contract and was awarded to the WLC consortium, a joint venture between NCC & Wayss & Freytag. Under this arrangement, Trafikverket acted as the client and project owner, supported by several technical consultants, while the WLC consortium had responsibility for both detailed design and execution. The model for delivery was intended to promote collaboration, efficiency, and shared responsibility, although interpretations of these responsibilities differed during project execution (Trafikverket, 2014).

Over time, the project met challenges, including escalation of costs, delays, and coordination difficulties. These issues led to increased tensions between Trafikverket and the WLC consortium, eventually leading to a breakdown of trust from both sides. In September 2025, Trafikverket decided to terminate the contract with the WLC consortium and restructured the project organisation (Trafikverket, 2025a).

Following the termination of contract, the client shifted away from the turnkey approach and introduced a more fragmented setup. To maintain progress, temporary contracts for “critical works” were implemented, while new long-term contracts were procured for the remaining scope (Trafikverket, 2025b; Trafikverket, 2025c).

The section of Korsvägen provides a unique opportunity to examine how project actors make sense of a major disruption, and how roles, responsibilities, and collaboration are reconstructed while project delivery is ongoing under a reconfigured governance structure.

4.1.1 The Arrangement of the Critical Work Contract

The project transitioned into a temporary state after the primary turnkey contract was terminated. In this transitional phase, a temporary contractual arrangement was established to allow certain essential works to continue. This type of arrangement is referred to as the critical work contract in this study. It was introduced to maintain safety-related activities, take care of already completed construction work, and to make sure that the site remained operational while new procurement processes were initiated for the continuation of the main project scope.

The critical work contract does not represent a continuation of the original project structure. Instead, it introduced a reconfigured setting in which responsibilities, coordination, and relationships between actors changed. In such a complex project of this character, contractual structures play a key role in terms of defining roles, mandates, and relationships between organisations as described by Winch (2014) and Müller et al. (2019). When these structures are reconfigured or disrupted and everything is turned upside down, the involved parties must interpret and navigate new expectations, responsibilities and collaborative interfaces. In this thesis, the critical work contract constitutes a temporary organizing context within which project actors make sense of roles, responsibilities, and collaboration following disruption.

4.2 Case Description: Project Organisation Structure

To provide a clear picture of how the structure of the project organisation changed from when the project was initiated up until the situation today, a simplified visual illustration and a brief description are provided below. This allows the reader to get an understanding of the context and how the situation has developed organisationally as well as contractually.

4.2.1 Project Organisation Structure Before Termination of Contract

Before the contract termination, the project was organized under a turnkey arrangement. Here, the client entered into a single contract with the main contractor who had the responsibility for both design and construction. The main contractor held overall responsibility for delivering the project according to agreed requirements, which included coordination of design activities and production processes. The design was carried out by consultants hired by the main contractor, and a hierarchical structure was created in which the client primarily interacted with one contractual counterpart. This type of arrangement is common in infrastructure projects of this size. The reason for this is that it makes it possible to integrate design and execution responsibilities and to streamline coordination and risk allocation within a single contractual entity as outlined by Winch (2014).

This type of organisational structure gave the main contractor significant authority and responsibility, while the client had a more strategic and supervisory role. Figure 4.1 illustrates the project organisation in the previous setup.

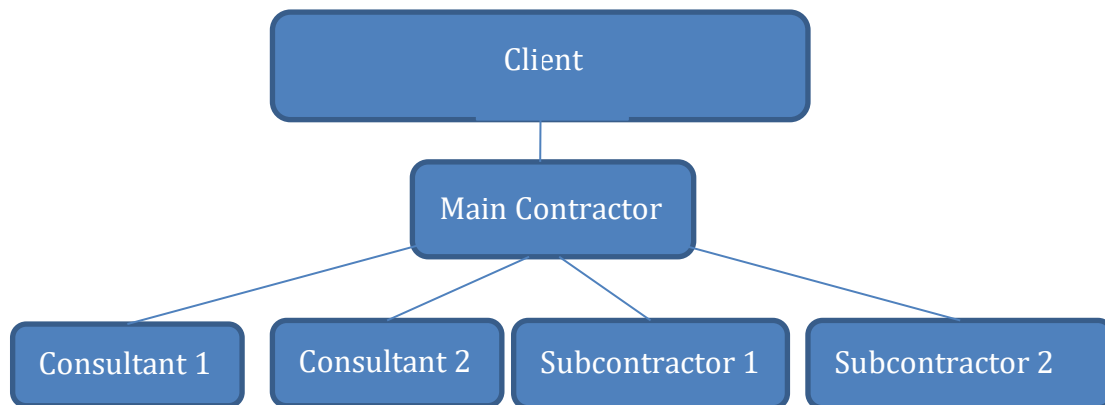
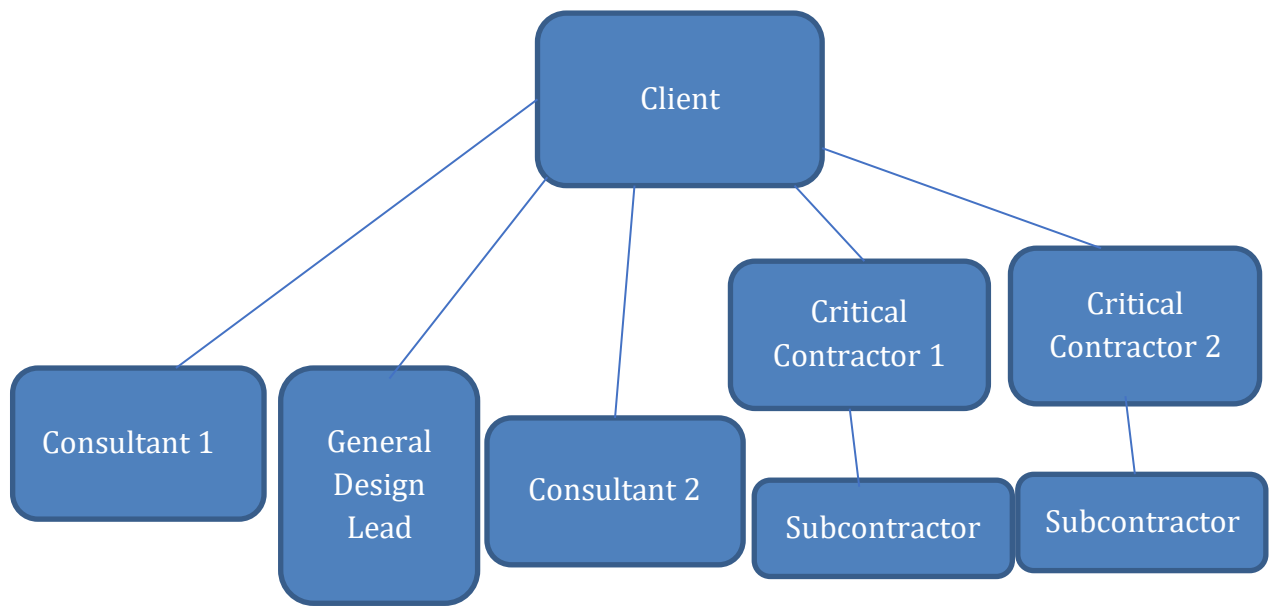


Figure 4.1 Illustration of Project Organisation Structure Before Termination of Contract (Own Illustration)

4.2.2 Project Organisation Structure in the New Contractual Setup

Following the contractual disruption where the initial turnkey contract was cancelled, the project organisation had to be restructured. The client chose to adopt a more client-centered arrangement by signing contracts with consultants and contractors directly. Within this new-established constellation, the client entered one contract with the consultants responsible for the design and another with contractors responsible for executing critical works. The structure is similar to an execution (design-bid-build like) arrangement, where the responsibilities for design and construction are contractually separated and coordinated by the client as illustrated by Winch (2014).

This contractual setup gave the client a much more active role in coordinating project activities and managing interfaces between design and construction. This major reconfiguration shifted responsibilities and redistributed authority within the project. At the same time, it increased the need for active governance and collaboration to make sure that progress was made under the revised contractual setting. Figure 4.2 illustrates the project organisation in the current setup.



*Figure 4.2 Illustration of Project Organisation Structure After Termination of Contract
(Own Illustration)*

5 Empirical Findings

The thematic analysis of the interview data identified a set of recurring themes and sub-themes. These illustrate how the project actors interpreted, experienced, and responded to the contractual disruption and the following reconfiguration of the project. The findings primarily reflect how roles, responsibilities, and collaboration practices were interpreted and reshaped. Also, how coordination challenges and uncertainty were managed in the new contractual arrangement.

Below, the empirical findings are presented and are structured around four main themes that emerged across the interviews. Collectively, they illustrate shared patterns as well as divergent interpretations among the interviewees. It should be noted that the accounts presented below reflect the perspectives of a limited set of actors, representing the client and the engineering consultant. These two organisations were among the main stakeholders involved both before and after the contract termination. The focus here is on describing the empirical material, interpretation and theoretical discussion of these findings are provided in the following discussion chapter.

5.1 Contract Termination

5.1.1 Breakdown of Communication and Coordination

The contract termination was described as abrupt and poorly communicated, which immediately left many actors without clear information about roles, responsibilities, and continuation of work. The termination came without forewarning and well-established routines, communication forums, and reporting structures disappeared overnight. Actors were forced to rely on informal conversations, assumptions, and media coverage to grasp the situation. The project has had stable routines for several years and an interviewee from the client described it as surprising:

“Just before the cancellation, we had no idea that it would go as far as terminating the contract and kind of putting a complete stop.” – I1

No official explanations led to different interpretations of the reason why the contract was terminated. Uncertainty spread quickly, as people attempted to “fill in the gaps” themselves. The situation was unexpected and led to uncertainty and confusion, where some interviewees (I14) even expressed worry about responsibilities and ongoing work. In practice, day-to-day activities continued, but multiple project actors described doing so under conditions of uncertainty, as it was unclear which decisions were still valid and who held responsibility. The termination was not communicated with transparency and early enough, and this led to the lack of a shared understanding.

“It was one of the most abrupt things I’ve been through. But you realize quite quickly that you can’t just sit back and worry. You have to work as best you can, almost like nothing has happened” – I14

However, the termination took place at a moment when project operations had begun to stabilise according to many project actors. Earlier phases of the project were often described as problematic with high levels of conflict and strained processes. Even so, just before the termination, many people experienced that routines and communication had started to function more smoothly. In this sense, the termination

was perceived as particularly disruptive, as it interrupted a period where coordination had started to improve and actors experienced a greater sense of shared direction. As one interviewee put it:

“It felt a little better in the project [...] as it flowed a little better and we kind of had a common goal” – I9

5.1.2 Managing Shock While Maintaining Project Continuity

A sense of shock, frustration, exhaustion, and in some cases even relief emerged among people when the termination took place. The termination was described as not only affecting people in their profession but also on a personal level, especially those who had been involved in the project over a long period of time. There was an unspoken expectation on people to set their emotions aside to maintain stability in the project.

Looking back, many interviewees described how they reacted when they first learned about the contract termination. However, instead of openly dealing with the shock, their attention quickly shifted towards crisis management, continuation of work, and fulfilling their responsibilities to the project. Emotional reactions therefore co-existed with professional expectations to maintain control and stability. This created a tension between personal responses to the termination and the organisational demands placed on the project actors. The two quotes below illustrate contrasting reactions from client representatives.

“I was so happy when I came to the site that morning, because we had finally solved a very difficult situation. And then I went to another meeting, and suddenly I didn’t understand anything. I checked my emails and saw that the contract had been cancelled. It almost felt like getting divorced or something, there were a lot of emotions.” – I4

“I thought it would never come, and it was like, ‘Eureka, I see.’ But it was very professionally handled. There had been work on this for a long time, and we were immediately told what we were going to do and who we should contact. So it wasn’t that we sat down and thought, ‘what happens now?’ We were given instructions on how to act.” – I6

Across the interviews, the termination was uniformly described as surprising, with one exception:

“They had worked on this decision for a long time, and the termination was handled very professionally.” – I6

5.1.3 Governance Shortcomings, Cost Escalation, and Loss of Design Control

As repeated by many respondents, the termination was also justified through references to governance shortcomings as well as economic logic. It was described uniformly across the interviews that the former turnkey contract failed in terms of control, transparency, and financial responsibility. From this perspective, the termination was described as necessary rather than a sudden disruptive event. A continued collaboration under the previous contract would most likely have led to

further escalation in terms of costs and weaker decision accountability according to many. As the client felt a lack in control over design and cost development, this eventually led to the decision to terminate the contract rather than finding a path forward. One consultant interviewee mentions this and describes the client as already being very involved in the process and that they have chosen the wrong procurement type.

“why should you procure a turnkey contractor then if you control it yourself as the client? Then it shouldn’t be a turnkey contract, that’s not what you’re after. Then you should have chosen an ECI contract. There the client is involved and they are involved in deciding the choice of solution or choice of implementation or they share the risks and everything because they get to be involved and have their say. I already think they were very much involved, because they have a review process that technically locks us in many aspects.” – I10

The termination was seen by many as a solution to restore control and protect the projects’ long-term viability.

“It’s very difficult to run a project when you don’t have an end date and a final budget to relate to.” – I1

From a client's viewpoint, rising costs were described as unexpected and difficult to trace back to agreed changes or specific orders. Respondents (I2, I4, I6) from the client side described it as they were being invoiced for work that they felt had not been requested explicitly. Simultaneously, project actors highlighted that the previous contractor presented a different narrative. They claimed that the increased costs had to do with shortcomings in the initial tender documentation and evolving project complexity. These competing accounts were summarized by one client interviewee as:

“The client experienced that you had to pay all the time for things that you had not ordered. And the previous contractor basically thought that they had received a very poor tender documentation and that new things and more complexity simply appeared all the time.” – I5

5.1.4 Termination as a Relational Rupture with Diverging Consequences

The contract termination was interpreted as a conflicted event by project actors representing both the client and the consultant. Both entailed a sense of loss as well as enabled new opportunities. From one point of view, the termination was experienced as a deeply disruptive break with major human and relational consequences. Several respondents emphasized that the termination did not only reorganise contracts and structures; it affected people’s work situations and professional relations. As one client representative put it:

*“for many people this became very personal [...] many have been sad, especially on the former contractor side [...] it was tough. It’s never painless to break a contract”
– I17*

The termination was also seen as an opportunity to reset ways of working that had become constrained within the turnkey contract. In the new project setup, collaboration was described as more direct and effective between the consultants and the client, especially in terms of technical discussions. Even if this came with new responsibilities. As one consultant respondent noted:

“Now it's more of a collaboration than it was before [...]. Now we say instead to our client, we have to talk to them here and then they say yes” – I10

5.2 Knowledge Loss as the Core Operational Problem

5.2.1 Loss of Tacit, People-Based Knowledge

Project participants describe that the termination resulted in a major loss of tacit, people-based knowledge embedded in ongoing relationships, informal routines, and daily coordination practices. Much of the operational knowledge relied on specific individuals who were no longer involved after the termination. As one consultant representative expressed it:

“we lost contact persons and the people you normally discuss things with. A lot of the knowledge was with them, not in the documents. So even if drawings exist, you don't really know why things were done in a certain way” – I16

Uniformly, a client respondent noted that:

“you don't realize how much knowledge sits with people until they are gone. When the contractor shuts down their systems and people leave, a lot of things disappear that were never written down” – I17

Likewise, another client representative described that:

*“Everyone who could steer this big machine almost disappeared overnight.”
– I2*

5.2.2 Loss of Decision Rationale and Design Intent

Missing decision rationale and unclear design intent was described as another major knowledge loss. Both client and consultant representatives described it as difficult to understand why particular solutions had been chosen and what considerations had guided earlier decisions. Limited insights into prior reasoning created uncertainty when attempting to interpret or continue work based on existing designs. Context specific knowledge was closely tied to individuals working at the previous contractor who had been involved for a long time. When these key actors had disappeared, respondents expressed concern that key considerations had not been fully transferred. One client interviewee, working as the link between production and design described this uncertainty as follows:

“What I saw as the biggest crisis around this was that you wouldn't capture all the things that were in the contractor's head.” – I4

The decisions were often formally recorded, but the basis on which they had been made was not documented consistently. As one consultant explained this distinction:

“The decisions are often documented, meeting minutes or memos or some email exchange, but what was the basis for the decision is not always so well documented.”
– I14

This loss of decision rationale created difficulties in understanding how certain design solutions had developed over time and what had guided earlier design processes. The direction and intent behind the design work is not visible. One client side interviewee described this gap in understanding as follows:

“That is a black hole for us, how the previous contractor guided their designers”
– I15

Even though it is the same design company as before, the client described it as difficult to guide their designers because that was the previous contractor’s responsibility.

5.2.3 Loss of Project-Data

The knowledge related to digital systems and project data had been closely tied to the previous contractor and was therefore lost after termination. Respondents highlighted that crucial knowledge had been embedded in technical systems, digital tools, and operational arrangements. The interviewees emphasized that the project organisation relied heavily on the digital infrastructure managed and owned by the contractor, which supported coordination between design, production, and documentation. When these systems were no longer available, this required the project organisation to re-establish basic structures for managing data and workflows. Several interviewees noted that questions of system ownership and data access had not been clarified before the termination, but this only became apparent once access was lost. As one client representative put it:

“You realized that it was the previous contractor who owned a lot of stuff and systems and so on.” – I17

Project actors stated that crucial digital models were no longer available or had to be reconstructed. One Project Manager representing the consultant described how design work was affected by the absence of project models:

“Some models are strictly practically got lost [...] and from this point of view, there are many things missing in order to be able to fully produce our design.” – I7

It was also described that the client organisation was not prepared technically to take responsibility for systems that were previously managed by the contractor. Access to data and digital continuity was limited as soon as the termination took place due to the absence of backup infrastructure. The initial transition was described as follows by one consultant:

“They had an idea of what to do with this crisis contract, but they hadn't offline all the data. They had not downloaded all the documents. They did not have a system that was ready to take over when the contractor left. Because it was the first thing that happened in the space of the 36 hours, a day and a half on Saturday. Then our digital systems went down.” – I10

It created operational gaps that affected overall coordination, design work, and the availability of information. The contractual arrangement formally regulated data delivery and documentation, however it was clear that access to operational systems and working data in practice remained tied to the contractor. Project actors described how they have and still are reconstructing digital environments and data flows in parallel with ongoing construction activities.

5.2.4 Rebuilding Operational Order Through Improvised Routines

Accounts from both client and consultant representatives highlight that they collectively had to rebuild operational order after the termination. Interviewees described those new ways of working as gradually emerging. Improvisation, temporary arrangements, and ongoing adjustment was used to rebuild order. Coordination practices and routines had to be developed simultaneously as work continued. The new ways of working are still being explored and refined, as described by one interviewee:

“We are searching right now, trying to find ways of working and finding routines... it’s not just business as usual.” – I2

Rebuilding routines have been both time-consuming and gradual, as described by several respondents (I3, I7, I8, I11, I13). Operational structures emerged slowly as actors gained experience of the new setup. Across the organisation there were expectations regarding how fast routines would stabilise, but according to the interviewees, these expectations did not match the actual time required. One consultant representative described this process as ongoing and not ready:

“It has absolutely been time-consuming to get all these routines and communication channels up and running again [...] we are probably not there one hundred percent yet.” – I8

Interviewees (I3, I7, I8) also described immediate actions taken to maintain coordination and avoid standstill. Frequent meetings were introduced as a way to compensate for the absence of established systems. Information sharing was prioritized immediately after the termination, as described by a Project Manager at the client side:

“Directly at the termination, we started daily meetings to keep everyone informed about what happens.” – I15

These improvised routines enabled work to proceed despite uncertainty and gaps in knowledge. The lost systems and structures were not replaced in a single step, instead everyone helped to develop provisional practices while long-term arrangements were still being formed.

5.3 Reconfiguration of Responsibility in the transition to Client-Led Control

5.3.1 Shift of design and operational responsibility to the client

Following the termination of the turnkey contract, the client had to take on more responsibilities with both subconsultants that were previously under the previous contractor, as well as taking on the new critical contractors assigned for the

construction. Several of the interviewees noted that the shift in responsibility involved new demands on the client organisation's capacity and operational capabilities. These responsibilities had previously been managed by the turnkey contractor, both coordinating on site construction activities and managing the detailed design with the consultant.

“the client must have the detailed knowledge that we can order things and run the work in a completely different way [...] the client need to have the same knowledge as the turnkey contractor had before. [...] We're not staffed for that, and we're not prepared for it.” – I2

In addition, one of the interviewees described the clients previously more limited role as sitting in the passenger seat not having much of an impact on the project itself.

“the client sat in the passenger seat and could only have an opinion but he didn't have the same drive for the process to move forward.” – I4

Not everyone viewed this shift as negative. An optimistic view which was discussed by the client was the fact that they now had a larger impact on choices being made for design and execution. This was seen as lacking in the previous constellation and was viewed as a positive turn of events within the client organisation.

“Now we can have more technical discussions, and we can choose the preferred path on our own.” – I15

However, that optimism has not been shared everywhere. The consultant mention that they receive a lot of comments on the design from people who in their view should not comment on it.

“my experience is that they have had many inexperienced from the Client who have had opinions on how the technical solution is, who should not be fiddling with the technical solution.” – I10

Another issue raised in the interviews was the disruption of established routines from the previous project setup. When the contract was terminated, many of these routines had to be rebuilt in order to make the new project setup function. One interviewee described the previous setup as a “well-oiled machine” that had to be reinvented after the termination.

“it's like a well-oiled machine, we deliver documents, we could really solve any problem that came our way. We had identified communication channels, we had identified key people, we knew exactly how to proceed. We could have built a space rocket if it had been required. [...] now you have to start over and rebuild this factory again [...] how to communicate, what meetings do we need to have, who do you talk to?” – I2

This quote illustrates how the termination was experienced not only as a contractual change, but also as a disruption of established working routines. The shift required the client organisation to recreate basic coordination structures, such as communication channels, meeting routines, and contact points. In the interviews, this change was

often described in relation to everyday work, including changing roles and new expectations about who should handle what.

5.3.2 Changing roles and responsibilities

Not only did responsibilities shift but roles also got altered in correlation with the termination, particularly on the client side. As the client organisation took on a more active and expanded role in the project, this required increased internal capacity to manage responsibilities that had previously been handled by the contractor. Consequently, new roles were introduced, and existing staff were required to adapt to new ways of working, taking on new responsibilities that had not previously existed within the organisation.

Some interviewees describe that the change also meant a wider scope for their role. One design coordinator mentioned that instead of being responsible for a limited part of the project, they now had to consider a larger area with a more holistic approach for the project.

“Maybe for better or worse, but your given a larger area of responsibility, not only being assigned certain building parts [...] but to include the whole station” – I12

Other interviewees emphasized that the shift affected what their daily work looked like. For some it meant a complete reconfiguration of their role and what was expected of them, as well as confusion of what was expected of them as responsibilities are not always clearly defined.

“My focus is no longer on solving problems. My focus is to solve paperwork” – I10

Several interviewees described that the altered roles required more emphasis on documentation and formal processes in day-to-day work. They also described that some aspects of the new role distribution were still being clarified over time, particularly in relation to execution level decisions and the clarity of instructions.

5.3.3 Client coping with execution responsibility

Approximately six months after the termination took place, interviewees described that the client was still in a period of adjustment regarding execution- and design-level processes and responsibilities that now needed to be managed directly by them. Even though these responsibilities had already shifted to the client, interviewees mention that the practical execution was still developing in parts of the project. One interviewee mentions that it is as if they do not seem to grasp the idea that the client is the one responsible now.

“it feels like still the client aren’t there with that actual idea that okay so we’re the ones who are responsible for the method itself” – I13

A related issue raised by one interviewee of the consultant was that it is visible in daily coordination, as requirements and priorities are less explicit than they had previously experienced.

“in the previous setting, the contractor had clearer ideas and requirements of what they want and when” – I16

Most of the interviewees mention the lack of ability to follow up due to the smaller team in the client organisation. An interviewee from the consultant mentioned that since the client organisation is much smaller than the project organisation at the previous turnkey contractor, they do not have the chance to follow up with the design works. This is something they have felt now more than before as they are dependent on answer to move forward, leading to a hurdle due to lack of people involved in the design works.

“They don’t have the capacity to follow up in the way you might have had before. The previous contractor had a whole design department with them as well. There are a lot fewer people at the client now who should advise all this. And we are still dependent on their decisions on certain issues to move forward. And I feel that limping more now than before. Because previously everyone was so involved in the detail and the actual status of the design. So there was a different understanding of what we needed for decisions to move forward.” - I8

A few people at the client organisation agreed with staffing insufficiencies, but others did not see the necessity of having as big organisation to follow up as the previous contractor had. Their view was that the consultants carried most of this follow up themselves.

“We got some contracts that we took over from the previous contractor. But if you compare the staffing that the previous contractor had, we are nowhere near that. But I don’t really see the need for it either. The consultants have a lot of this themselves” - I17

Across the interviews, the responsibility shift was described as formally established, while several interviewees also described ongoing clarification needs. Interviewees also presented differing views on the extent to which follow-up capacity is needed under the current contractual setting.

5.4 Establishing a New Order with Increased Transparency and Structural Trade-offs

5.4.1 Shorter communication paths with collaborative benefits

Many of the interviewees discussed the benefit of having more direct contact with their counterpart, both in the client organisation as well as at the consultant. The consultant emphasized the benefit of having direct contact with the people making the decisions as well as skipping formal routines that previously hindered effectiveness. Having this direct contact created a more collaborative environment and they can normally come to an agreement together.

"The feedback then through the previous contractor when we were talking about review comments, for example, then we had to book a meeting two weeks in advance we had to prepare a presentation. It was much more formal and maybe not so effective and normally we didn't get an answer directly in these meetings or maybe we didn't get an answer at all. Now that changed quite a bit that we can have those discussions then directly with the specialist and then we normally also find an

agreement with. So in that regard, it's more cooperative in this way. We find a solution together." - I16

"The big difference is that it's one layer less [...] There is no middleman. We talk to the person who is supposed to make the decision." – I14

One interviewee from the consultant brings up that previously the turnkey contractor could restrict contact between other consultants or the client if they didn't consider it necessary contact. Now the consultant says there is more freedom, if they believe it is necessary to coordinate with other actors in the project they are given that opportunity.

"Now it's more of a collaboration than it was before for the reason that that's what the turnkey contractor decided. [...] if they said that you shouldn't talk, okay then we didn't. Now we say instead to our client, we have to talk to them here and they say yes of course" – I10

However, issues persist for both the client and consultant. One interviewee from the client mentions that now everything is being paid for, removing that potential conflict and that the client "loses" on that.

"There are fewer conflicts, but it costs more in time and money. So, there is one party that benefits from it, we [the client] lose." – I2

Overall, the consensus throughout the interviews was the collaboration aspect has improved with shortened communication paths. In addition to affecting decision pathways and coordination speed, interviewees also linked shorter communication paths to changes in interaction patterns, including perceived openness and the tone of collaboration.

5.4.2 Improved tone and relational climate with an increase in responsibility

In addition to mentioning shorter communication paths, interviewees also discussed how the tone and relational climate changed in the reconfigured setting. Both the consultant and the client agree throughout the interviews that the fewer conflicts emerge. Several interviewees describe how the relationship has shifted toward greater openness and transparency. One person from the client expressed that the current constellation allows for more direction and open communication, with both positive and negative aspects are discussed more freely.

"I think that I get much greater insight into both time and costs that you report quite openly and that we can talk about things. [...] It doesn't feel like you have any other agenda with it. We can talk openly about both what is good and what is bad. [...] with the previous contractor it felt like there was some filter there. They didn't want to show everything..." – I17

In combination with better relationships, the interviewees' consensus is that meetings have taken a less heated direction as people are in a better mood and on friendlier terms.

“the discussions are not as heated as they used to be [...] we are always on very friendly terms in all the meetings now which we haven’t been before” – I16

One consultant interviewee describes the previous relationship with the client to have been misaligned with their formal role. The client at times attempted to influence design decisions despite not formally holding responsibility for design choices within the project. This created friction, particularly when design decisions were influenced without any responsibility for their outcomes in the previous constellation with the client. Now that they have taken on that role and their responsibility has grown, they do not receive these comments anymore.

“The client used to be in and fiddled with everything, and yes they have ordered it. But they have also done just that, they have ordered it. I mean, it's like you order a pizza and while the pizza is cooking when you lay the tomatoes on the pizza they come and say, by the way it should be tomatoes from Italy and you say but I don't have tomatoes from Italy. But then I want you to change it. And then you say okay, but then I have to run off to this unique dealer over here and then your pizza will be cold. And they respond with, no you just have to solve it. [...] these were things that happened in the past. That is not happening now. And I think that's because they have a completely different role. They have a responsibility now.” – I10

The interviewees described the current setting involving more open interaction, friendlier meeting interactions, and greater transparency in discussions compared to earlier arrangements.

5.4.3 Stabilization requires new coordination infrastructure

While several interviewees described improved tone and more direct communication, they also described ongoing work to establish routines, responsibilities, and coordination structures. As the new order was starting to take shape, most interviewees mention that they are not quite there yet after approximately six months after the termination. Some are more satisfied than others, but no one really feels that they are one hundred percent back on track. An interviewee at the consultant mentions that the client has not allocated responsible staff for design packages, making it harder and more confusing for the consultant to know who exactly to contact.

“most effective if the client would have on designated point of contact for every package [...] with a clear communication path and tools to structure communication.” – I16

One interviewee at the client mentions that forums and routines were well established and were well functioning with the previous contractor. Now all of that is being thrown out and everything must be reinvented. He describes the previous constellation as a “well-oiled machine” and that now there are no real routines in place fully yet, instead of having designated meetings or other forums you now only get an email or notification.

“Before with the previous contractor it was pretty much in the past, we had worked for several years and identified what forums do we need to have to discuss with the Client. But now it's changed conditions and a blank paper, we have to reinvent this

[...] There are some routines but it's under construction [...] When it comes to these parts, it was more of a well-oiled machine [with the previous contractor], it works [...] Now it's done by email or a notification.” - I2

One interviewee at the client mentioned one important routine that has been set since after the termination, designated design coordination days where a big portion of people involved in the design sit together in a room so they can easily interact and discuss issues or arising problems together.

“But just this thing that you are talking about protocols and that part. We have had to invent that along the way. [...] when we got a question answer list in order where we could log decisions, it was a consultant at another consulting firm who had the basis for it. [...] Then we've been having these standing design coordination days, wednesdays where we gather everyone so we can look at each other's screens and design together to put it bluntly. And then we reconvene at the end of the day and go through what we've done and if there have been any new questions or any, we can extinguish or something like that.” - I12

While interviewees described several emerging coordination routines, they also noted that some routines were still being developed or adjusted.

5.4.4 Provisional stabilization and optimism risk

The interviewees all agreed that the termination of the turnkey contractor created consequences on routines and that there were a lot of temporary solutions. This new order is not described as a return to normal but rather as a period of rebuilding. Here coordination habits, communication channels, and decision paths must be re-established while work continues. Several interviewees describe an organisation that is still finding its way of working, with routines that are being improvised or adjusted over time rather than fully stabilised.

“We're searching right now and trying to find ways of working and finding routines. So it's not just business as usual. It's much more fumbling to understand the big picture than it was before” - I2

Even when interviewees acknowledge movement in a positive direction, they stress that the situation remains in progress rather than being settled. One interviewee from the client mentions that they are moving in the right direction but not quite there yet. This is further confirmed by other interviewees describing it as ongoing “firefighting” and that the project will enter a new phase as the critical contractors leave and new executing contractors enter.

“No, we're not quite there. We are moving towards something more positive but the transition is still going on I would say.” - I15

At the same time, other personnel within the client organisation come with a contrasting viewpoint, with one interviewee saying that routines are “pretty much on a roll again”.

"We have gotten into the routine with some meetings and who is responsible for what and such things. We have a timetable with deliveries and it's pretty much on a roll again" – I17

A concern raised by one of the interviewees at the client's side was their previous optimism regarding the critical contractors, they had taken longer to get in place and to get adjusted to the project than anticipated and that they risked the same optimism towards the new contractors entering after the critical contractors.

"they [the client] perhaps had an overconfidence that they would get started with the critical contractors faster than they did. There can be a risk that you have the same optimism about these new ones that are to be procured and it can be both overtried (reviewed) and in other ways." – I17

6 Discussion

6.1 Interpreting Contractual Disruption and Organisational Uncertainty

RQ1: How did project actors interpret contractual disruption and make sense of the uncertainty created?

Project participants described the contractual disruption as something that created a lot of emotions, uncertainty, and disrupted routines in their daily work. It was experienced as abrupt and difficult to interpret, leading actors to continuously make sense of what had happened and how to move forward. The findings also indicate that the disruption was viewed differently depending on actors' roles, access to information, and involvement in processes for decision-making. Uncertainty was not described as a temporary condition, but as something that persisted and had to be dealt with through ongoing interpretation.

6.1.1 Contractual Disruption as Organisational Rupture

The contract termination was not seen as a discrete contractual or legal event. Instead, it was described as a systemic organisational rupture that affected how the project was organized in multiple ways. Interviewees described how the event dismantled established routines, structures for coordination, and shared understanding that previously had worked well on a daily basis (see Section 5.1.1 and 5.2.4). For instance, I2 described that “everyone who could steer this big machine almost disappeared overnight”, which required them to actively reconsider how everyday tasks should be coordinated. One could argue that the termination did not mark a clear break followed by instant reorganisation, instead it created an environment in which existing principles for organizing no longer applied. This forced people to reinterpret how the project functioned as a whole. The period of uncertainty that followed was not only characterised by uncertainty in terms of technical solutions or economic aspects, such as cost escalation or schedule risk, but was experienced as organisational and relational. What is evident in the empirical findings (see Section 5.1.1, 5.2 and 5.4.4) is that actors were uncertain about authority, decision rights, channels for communication, and how to exercise responsibility in practice. For example, interviewees described situations where it was unclear who had the mandate to make decisions, leading to delays and the need to negotiate responsibilities informally in meetings. This aligns with literature on disruption in project environments of high complexity presented by Cruz & Marques (2021) and Riveros et al. (2022), who argue that termination of a contract usually destabilises interconnected governance, coordination, and relational structures rather than isolated contractual elements.

The clients' decision to switch procurement strategy contributed to this systemic rupture. Moving from a turnkey contract to a critical work contract, totally changed the underlying governance logic of the project, and it shifted assumptions about control, responsibilities, and coordination. As reflected on in the findings (Section 5.2.4) several interviewees expressed that they had to rebuild routines and relearn how decisions were made in the new constellation. In Winchs' (2014) research on project organizing, he argues that changes in procurement and governance arrangements reconfigure projects at a systemic level rather than simply adjusting contractual

interfaces. This is what is illustrated in the findings, showing that this shift of procurement required actors to reinterpret how decisions were made and how work should proceed. The findings on knowledge loss (Section 5.2.1 and 5.2.3) further underscore the severity of the organisational rupture. The fact that tacit knowledge, decision rationale, and system-embedded information was lost contributed to disruptions in terms of coordination and everyday practice. Not only were formal information flows disrupted but also access to knowledge from experience accumulated over time. It was evident that this was and still is particularly difficult to recover through documentation alone. For example, interviewees described difficulties in understanding existing designs because the reasoning behind them was no longer accessible, requiring them to reconstruct decisions from incomplete information. This type of “hidden knowledge” complicated subsequent work, as existing designs could not be interpreted easily without understanding the background that had originally formed the design. In the literature by Abu Dief et al. (2016), termination in ongoing projects is characterized by such disruptions, where work must proceed despite weakened organisational memory and capacity for coordination.

When the disruption occurred, it was uniformly positioned as a moment that fundamentally reconfigured the organizing logic rather than a correctable contractual failure. As seen across the interviews, actors did not describe a clear transition to a new stable state but rather an ongoing need to reassess how the project should function. As suggested by Winch et al. (2022), changes in governance often trigger intensified sensemaking and prolonged adjustments instead of stabilization straight away.

A contractual disruption of this character in a megaproject is not only an intervention of governance, but a systemic organisational rupture that affects several dimensions of organizing negatively. As outlined in earlier studies by Cruz & Marques (2021), termination disrupts coordination structures, and the findings extend this by shedding light on how disruption also affects less visible elements such as shared understanding and knowledge infrastructures. For instance, people expressed uncertainty of “how should this be done in practice”, even after such a long time since the formal changes were implemented. Therefore, insights from interviewees confirm existing literature on disruption in complex projects, but also challenges the assumption that governance change can restore order quickly. Instead, accounts from the interviews demonstrate that a disruption creates uncertainty during a long time period and this requires continuous sensemaking and adaptation (Winch et al., 2022; Abu Dief et al., 2016).

6.1.2 Making Sense of Uncertainty through Fragmented Narratives and Information Gaps

The contractual disruption was not communicated transparently and early enough, leading actors to construct their own interpretations of the situation rather than relying on shared expectations. This led to uncertainty spreading quickly across the project organisation (see Section 5.1.1). This uncertainty was not fixed through formal structures, instead it accelerated since there was no shared explanation of what had happened and how the project would proceed. For example, several interviewees described receiving limited or delayed information about the termination, including I14 that describes it as “It was one of the most abrupt things I’ve been through”. Available cues and prior experience, based on these, people constructed their own interpretations, resulting in fragmented narratives.

Weick et al. (2005) explains that when clear information is not available, actors construct meaning through interpretation rather than relying on predefined structures. This is reflected in the findings, when people try to make sense of uncertainty. People interpreted uncertainty individually and through the specific context, as they drew different conclusions based on available information (Sandberg & Tsoukas, 2015). For instance, some individuals saw the disruption as a temporary coordination issue, while others saw it as a major shift in project structure. (Section 5.1.1 & Section 5.1.2). Therefore, actors with different organisational positions interpreted the disruption differently, depending on their access to information, proximity to decision-making processes and if they were involved in coordination processes. This fact is explicitly shown in section 5.1.1 in the findings where both client and consultant representatives further away from these processes express that they had to fill gaps to solve uncertainty. This illustrates how limited access to information required actors to actively construct explanations themselves. Contrasting to this, it is emphasized in section 5.1.2 that actors closer to these processes had been working on the decision to terminate for a long time and that they did not experience the same uncertainty. This also aligns with literature on disruption and uncertainty between organisations, which highlight how institutional differences and fragmented interpretations shape how actors make sense of disruption (Matinheikki et al., 2019; Rönndahl et al., 2025).

Uncertainty has often been treated as an external condition that arises from technical complexity or environmental change in prior studies. This study demonstrates that uncertainty is also socially constructed through fragmented sensemaking processes. As stated before, sensemaking plays a central role under ambiguity, but the study also shows that the absence of communication triggers divergent interpretations rather than reducing them. For example, as revealed in section 5.3.3, interviewees described how different teams operated with parallel understandings of priorities and responsibilities over extended periods. The assumption that information gaps are temporary issues that can be solved through formal communication is also being challenged. Instead, the findings suggest that information gaps can persist over time as described by I13 (see Section 5.3.3) and shape organizing by producing parallel understandings that must be negotiated continuously (Winch, 2014).

6.1.3 Temporal Sensemaking: Interpreting Disruption and Uncertainty through ‘Before’ and ‘After’ Comparisons

The empirical findings reveal that project actors uniformly compared the situation before and after the contract termination. This comparison enabled people to make sense of the event. As shown in section 5.1.1, the disruption was perceived particularly heavy because it took place at a moment when routines and collaboration had begun to stabilise, making the break more consequential and abrupt. For instance, I9 described the situation before the termination as “It felt a little better in the project as it flowed a little better and we kind of had a common goal”, which made the disruption feel more abrupt and difficult to absorb. The event was not interpreted in isolation, but instead, actors evaluated it in relation to how the previous set-up functioned in terms of coordination, control, and predictability. This is precisely what is described in sensemaking theory by Weick et al. (2005), where it is found that meaning is constructed retrospectively through comparison with past experience. The previous turnkey arrangement was used as a reference point to understand what had changed and what the disruption meant in practice. The shift of procurement strategy

by the client further shaped these interpretations by redrawing the map around roles, authority, and coordination (Winch, 2014).

How the disruption was interpreted was also shaped by how actors evaluated the prior arrangement. The findings on shortcomings in terms of governance and the fact that costs escalated in the previous arrangement (see Section 5.1.3), help explain why the termination occurred. Despite this, people did not interpret the termination only as a rational correction, but instead the meaning was shaped by what it interrupted, namely an emerging sense of stability. For instance, several actors expressed frustration that improvements in collaboration were lost, suggesting that the disruption was evaluated against a trajectory of gradual stabilisation rather than solely against contractual performance. This is further strengthened by the findings on knowledge loss in section 5.2, which limited actors' ability to reconstruct past decisions. As a result of this, actors had difficulties connecting present challenges with past reasoning. This fact made the retrospective sensemaking even more uncertain and fragmented.

In existing research by Weick et al. (2005), sensemaking in disrupted project environments is described as retrospective. This study contributes to this research by adding that sensemaking is also comparative and shaped by perceived loss and interruption. Also it shows that uncertainty emerges internally through fragmented communication. As revealed in section 5.1.4 and expressed by I10 & I17, the event was not understood as uniformly negative or positive, but instead it created a sense of loss, opportunity and the conditions for reconfiguration. For instance, while some actors emphasized the loss of stability and knowledge, others pointed to increased opportunities for control and improvement under the new arrangement. This study extends established literature by demonstrating that people make sense of disruption by comparing it to how things were before, not just by looking at why it happened.

6.1.4 Coping with Uncertainty through Professional Norms

Section 5.1.2 in the empirical findings reveals that project actors managed uncertainty following the termination by continuing their work and relying on professional norms as a stabilizing reference point. This suggests that stability was not achieved through formal structures but through professional conduct. Strong emotional responses such as shock and frustration were present, despite this people noted a clear expectation to act professionally and keep the project moving forward. For instance, I14 stated that "you have to work as best you can, almost like nothing has happened", despite not having clarity on roles or direction. This mindset allowed project work to proceed when roles, responsibilities, and structures for coordination were still unclear. Actors tend to respond to uncertainty through action and interpretation rather than waiting for things to become clear. This is emphasized in sensemaking literature by Weick et al. (2005), who argue that action often precedes full understanding, and this is precisely what the findings suggest. In this particular case study, uncertainty was dealt with in a pragmatic way through ongoing work and improvised practices (see Section 5.2.4). One interview (I2) described is as "trying to find ways of working and finding routines" and this exemplifies that people continuously adjusted their actions while making sense of the situation (Sandberg & Tsoukas, 2015). This illustrates that coordination emerged through practice rather than predefined structures. The shift in procurement strategy also amplified this, as reduced structural guidance increased reliance on professional judgement and informal coordination (Winch, 2014).

An important notation is that uncertainty was not experienced as a temporary phase, but as an ongoing condition for organizing. This is illustrated in the findings in section 5.3.3 & 5.4.3 that the client is still in a period of adjustment and has not yet reached a stable state, even six months after termination. A client interviewee (I15) confirms this further by saying “we’re not quite there. We are moving towards something more positive but the transition is still going on I would say”, indicating that uncertainty persisted over time rather than being resolved quickly. This finding confirms what is said in literature on organizing under ambiguity, where action and interpretation are closely related. The findings also extend it by illustrating that professional norms function as a key stabilizing mechanism when formal governance is lacking. A common misconception is that rapid stabilization occurs immediately after a disruption. Insights here show that organizing continues through ongoing work, professionalism, and intensified sensemaking in the absence of clear structures (Hietajärvi & Aaltonen, 2018).

6.2 Sensemaking of Roles, Responsibilities, and Collaboration after Contractual Disruption

RQ2: How do project actors make sense of roles, responsibilities, and collaboration following contractual disruption in a large-scale infrastructure project?

Respondents generally provided a description that roles, responsibilities and collaboration in the reconfigured setting were not clearly defined from the outset. It was noted that actors continuously had to interpret their responsibilities in practice by drawing on prior experiences from the previous contractual arrangement. Simultaneously, the findings indicate that individual's interpretations differed depending on their role, proximity to decision-making, and perceived capacity, while collaboration was seen as more direct but also demanding. Furthermore, roles and coordination practices were described as provisional and evolving, indicating that a fully stabilised understanding had not yet been established.

6.2.1 Sensemaking of Roles and Responsibilities as an Ongoing and Situated Process

In section 5.3 in the empirical findings, it can be seen that project actors did not experience roles and responsibilities as being clearly defined through the contractual reconfiguration alone. This suggests that formal contractual reconfiguration alone was insufficient to create clarity in roles and responsibilities. Formally, responsibility was reassigned after termination, although this may not have fully occurred in practice. This did not translate into immediate or shared understanding across the project organisation. Actors instead described that they continuously had to interpret what their roles entailed in their daily work, as new coordination demands, decision situations, and interaction patterns emerged. Several interviewees described uncertainty about “who should do what” in emerging situations, requiring them to clarify responsibilities through interaction. This suggests that formal role definitions were insufficient to guide action, requiring actors to actively construct meaning in response to unfolding situations. In line with sensemaking literature, this illustrates how roles and responsibilities are not simply determined by formal structures but are negotiated and enacted through ongoing interaction and retrospective interpretation

(Weick et al., 2005; Sandberg & Tsoukas, 2015). People relied on situational cues, feedback from others, and evolving practices to clarify expectations over time. This is also exemplified in the findings section 5.4.3 where I12 describes the standing coordination days where they gather everyone, and design is made collectively.

The findings show a clear shift in how responsibility and decision-making were before and after the contract termination. This indicates that roles were not only unclear but also fundamentally reconfigured through the disruption. With the previous contract, the client's role was described as distant from design and execution, as one interviewee (I2) described their role as "sitting in the passenger seat" (Section 5.3.1). Following the termination this changed as the client took on a more direct role in both coordination and decision-making. Rather than purely overseeing the work, the client became the responsible part in decision-making for both design and execution. This reflects how changes in governance structures reshape roles in practice rather than simply redefining them formally (Winch, 2014).

Furthermore, the empirical findings from the interview study in section 5.3.2 and 5.3.3 show that interpretations of roles were strongly shaped by actors' prior positions and experiences under the turnkey contract. This demonstrates that actors relied on past organisational arrangements to interpret new responsibilities. The new arrangement was not approached as a blank slate, instead actors made sense of their responsibilities by comparing them to how authority, coordination, and accountability had been organized previously. For instance, interviewees referred back to "how things were done before" when trying to understand their new roles. This finding is closely interrelated with literature on temporal and situated organizing, which emphasizes how prior organisational arrangements continue to influence current interpretations and expectations (Winch & Sergeeva, 2022).

Additionally, during this period of role ambiguity, professional norms functioned as an important stabilizing reference point as described in the findings in section 5.1.2 and 5.2.4. When formal definitions of roles were unclear or only partially established, actors drew on professional standards and established work practices to guide action and coordinate with others. This exemplified by I6, describing that clear instructions were given on how to act and that it was expected from people to act professional. This expectation enabled coordination to continue even in the absence of clearly defined roles. This reliance on professionalism helped a lot to maintain continuity and made it possible for work to proceed despite uncertainty. This aligns well with research on complex project organizing, which stresses that coordination in environments where several organisations are involved and temporary project settings depends not only on formal governance structures but also on informal norms and situated judgement (Winch, 2014; Winch et al., 2022).

Overall, the findings suggest that roles and responsibilities were not redefined immediately when the contract was terminated but were constructed and developed through interaction and individual interpretation. This corresponds with literature by Hietajärvi & Aaltonen (2018) outlining that actors make sense of formal structures in relation to earlier experience, professional norms as well as evolving conditions. The fact that the client chose to terminate the turnkey contract and transition into the critical works contract, ultimately altered underlying assumptions about responsibility, authority, and coordination across the project.

6.2.2 Interpreting Responsibility through Practice

As displayed in the empirical findings in section 5.3.2 and 5.3.3, mandates were reallocated mostly toward the client side. However, project actors did not experience those changes as providing instant guidance on how to act. Instead, responsibility had to be enacted and interpreted on a daily basis in the actual work. This finding aligns with existing research on complex project organizing outlined by Winch (2014) and Winch et al. (2022), where they emphasize that responsibility in infrastructure projects of this size cannot be understood only as a contractual allocation, but must be supported by organisational capability and structures for coordination. This gap between formal authority and practical capability aligns with broader findings in megaproject research, which highlight challenges related to coordination, control, and the alignment of responsibilities across organisations (Flyvbjerg, 2014; van Marrewijk et al. 2016). People frequently made sense of their responsibility by asking what they were actually able to do, rather than what they were formally mandated to do. Therefore, sensemaking of responsibility was closely tied to perceived capability, access to expertise, staffing, systems, and experience, rather than contractual formulation alone.

In areas where such capability was seen as insufficient, collaboration was described as fragile and demanding. As presented by the empirical findings (see Section 5.3.1), people felt that the dependency on consultants and informal coordination had increased to compensate for limited internal capacity. For instance, several interviewees described relying heavily on consultants to “fill the gaps” when internal expertise or resources were lacking. This shaped how responsibility was interpreted across the project organisation. As outlined by Marrewijk et al. (2008), responsibility in inter-organisational settings with high complexity is relational and distributed, rather than situated within one actor. This is precisely what the findings suggest. In areas when capability did not match mandate, responsibility was experienced less as control and more as exposure to risk and uncertainty. These insights acknowledge that responsibility becomes meaningful only insofar as it can be interpreted and enacted practically. This is described in sensemaking research by Weick et al. (2005) and Sandberg & Tsoukas (2015). People within the project organisation constantly interpreted what their expanded mandates meant by engaging with concrete tasks (see Section 5.3.3), negotiating boundaries with other actors, and adjusting to emerging demands. Responsibility was not stabilised purely on a formal basis, but through iterative enactment in everyday work. In project environments where a major disruption has occurred, governance changes intensify interpretative work rather than resolve it, as people must balance formal arrangements with practical capability to sustain coordination and collaboration.

The findings show that the clients’ mandate expanded as they chose not to enter a new turnkey contract. This means that the responsibility for coordination, design management, and execution related issues now falls under the client (Section 5.3). While this action provided greater authority and influence for the client, what became visible was the lack of formal responsibility and their organisational capability. This reflects how changes in governance can redistribute formal authority faster than organisations can develop the capacity to enact it (Winch, 2014). Several interviewees, including I8 from the consultant side, describe limitations in the client’s

ability to follow up on design work, provide timely decisions, and maintain the same level of detail oversight as the turnkey contractor. As I8 puts it: “They don’t have the capacity to follow up in the way you might have had before”. Even interviewees from the client’s organisation mention that they are understaffed in these regards. At the same time, one client interviewee (I17) mentions that this level of follow-up is not necessary and instead emphasizes the role of consultant carrying this responsibility. This illustrates that responsibility was negotiated and interpreted differently across actors rather than shared as a uniform understanding.

Prior studies highlight the importance of aligning authority with structures and capabilities (Winch, 2014; Winch et al., 2022). As illustrated in the findings, the disruption intensifies this misalignment and this makes responsibility highly contingent on available capability and interaction rather than formal allocation alone. This suggests that governance changes do not resolve ambiguity but instead shift it into practice. From this perspective, the study confirms this gap between authority and capability described in megaproject literature by Flyvbjerg (2014), but also extends the literature by showing how this gap becomes a key-driver of sensemaking in practice. Responsibility remains fluid and negotiated unless supported by sufficient capacity and coordination mechanisms.

6.2.3 Reconstructing Collaboration in the new setting

As illustrated in the empirical findings (see Section 5.4), collaboration after a contractual disruption emerges through ongoing and renewed sensemaking rather than being restored only through formal procedures. This indicates that collaboration did not “return” after the disruption but had to be continuously rebuilt in practice. Instead, collaboration mechanisms were described as needing to be reconstructed actively under revised conditions, both organisationally and contractually. Established coordination routines and relational interfaces were disrupted by the termination, and this required actors to reinterpret how they should collaborate in practice while project delivery continued. For example, interviewees described having to re-establish ways of communicating and coordinating tasks without relying on previous routines. As expressed by I2 in section 5.2.4, “we are searching right now, trying to find ways of working and finding routines”.

The client’s transition from one procurement strategy to another was closely linked to the reconstruction of collaboration. The shift from a turnkey contract to a critical work contract modified how responsibilities, decision authority, and communication paths were structured. Both client and consultant representatives described that the removal of contractual interfaces reduced some forms of filtering and formal mediation. For instance, several actors noted that communication became more direct, as fewer formal layers separated organisations. As noted by I14 in section 5.4.1, “the big difference is that it’s one layer less. There is no middleman. We talk to the person who is supposed to make the decision”. At the same time, it also introduced ambiguity regarding responsibility for coordination and accountability. It was viewed by many that collaboration became more exposed and demanding, relying more on direct interaction and professional judgement rather than predefined procedures.

It is important to note that collaboration was not consistently interpreted and described as better in the reconfigured setting. Several interviewees (see Section 5.4.1, 5.4.2 & 5.4.3), representing both the client and the consultant described improvements in transparency and interaction in the collaboration. However, these

were accompanied by increased coordination burden and responsibility. This reflects on collaboration in megaproject environments, which emphasizes that collaboration is not a stable outcome of governance design, but an ongoing process shaped by institutional context, interdependence, and interaction (van Marrewijk et al., 2008; van Marrewijk et al., 2016). From a sensemaking perspective, collaboration emerges through ongoing interpretation and interaction, rather than being determined by contractual design alone. People constantly make sense of how collaboration should function by negotiating expectations, roles, and practices according to the new procurement logic and evolving conditions (Weick et al., 2005; Hietajärvi & Aaltonen, 2018). Project actors aim at creating a collaborative project identity, which is exactly what is identified in the findings, and this matches with literature within the field of research.

These findings refine established research by showing that collaboration must be actively reconstructed rather than restored. In prior studies, for example by van Marrewijk et al. (2008), it is emphasized that collaboration is a relational process. The findings extend this by highlighting the trade-off between increased openness and greater coordination burden (van Marrewijk et al., 2016). For example, while more direct interaction improved transparency, it also shifted more responsibility for coordination onto individual actors. This is illustrated by I10 in section 5.3.2 where he expresses that “my focus is no longer on solving problems. My focus is to solve paperwork”. Literature claiming that contractual reconfiguration improves collaboration is also challenged, and the findings instead suggest that collaboration becomes more dependent on ongoing sensemaking and negotiation.

6.2.4 Uneven Sensemaking across the Project Organisation

As presented by the empirical findings, shared understanding developed unevenly across the organisations involved after the contract was terminated. Actors made sense of the reconfigured setting in various ways depending on their role, proximity to decision-making, and exposure to ongoing uncertainty. This means that people did not have a common interpretation of roles, responsibilities, and collaboration, but instead they made sense of it based on the factors mentioned above. Some actors (see Section 5.3) were closely involved in coordination and governance processes and therefore experienced increased clarity. While others further away from these processes continued to face ambiguity regarding expectations and authority. For example, actors closer to decision-making described clearer expectations, whereas others expressed having to “fill in the gaps” to understand what was expected of them as exemplified in section 5.1.1.

The fact that sensemaking developed unevenly aligns with research within the field of sensemaking. This is outlined in theory by Weick et al. (2005), who emphasizes that interpretation is situated and created by actors’ local contexts and access to cues, rather than by formal structures alone. Different information sources and experiences were used as the basis to construct meaning among project actors, and this resulted in parallel understandings rather than a shared perspective. This illustrates that the same disruption was interpreted in fundamentally different ways across the organisation. Furthermore, the findings (see Section 5.2.4) illustrate that sensemaking played a crucial role as a mechanism for organizing, when no stabilised governance arrangements were in place. The structural change, when the client chose to switch procurement strategy, did not in itself generate a sense of shared understanding.

Instead, people were forced to negotiate how the new procurement logic translated into everyday responsibilities and collaboration. For instance, I8 described needing to align expectations through meetings and interaction rather than relying on formal definitions and emphasized that “we are probably not there one hundred percent yet”.

This amplifies what is presented in research on complex project organizing by Winch (2014) that formal governance seldom produces identical interpretations in megaprojects. It is important to note that sensemaking was not collective automatically but has to be negotiated actively between the involved organisations. Actors’ interpretations were constantly aligned through interaction rather than aligned through the design of the contract. This finding aligns with literature by Hietajärvi & Aaltonen (2018), who highlights that shared meaning and coordination emerge through ongoing negotiation rather than through formal agreements alone.

Sensemaking in disrupted projects is uneven and distributed across actors rather than shared, as shown in the findings. Sensemaking is situational and context dependent as shown in prior research by Weick et al. (2005), and the findings extend this by showing how differences in roles and access to information lead to parallel interpretations. The findings confirm that coordination emerges through negotiation, but they also challenge assumptions that governance changes create alignment, highlighting the need for continuous interaction.

6.3 Interpreting Collaboration and Inter-Organisational Relationships after Reconfiguration

RQ3: How do project actors interpret and reconstruct collaboration within the reconfigured setting, and where do their interpretations align or diverge?

Throughout the interviews, participants generally concur that collaboration in the new setting has become more direct, transparent, and less conflict driven than before the contract termination. Simultaneously the interviews show that other aspects such as efficiency, incentives, risk, and control, have been interpreted differently between participants. Participants also mention that routines remained provisional and person dependent, indicating that a new order has not been fully implemented.

6.3.1 Alignment around Improved Relational Climate and Transparency

As found in the empirical findings, interviewees describe the shift in climate as something positive for both the client and consultant. Both sides describe not only that the discussions were less heated, but also that direct contact between reviewer and designer has led to a more collaborative way of working with faster answers for design questions (Section 5.4.2 & Section 5.4.1). When previously working for the turnkey contractor, the consultant brings up that to receive answers they had to book a meeting two weeks in advance and often did not receive an answer at the meeting or at all. Interviewees from the client mentions that previously they got a sense of “filter” and unwantedness to show and talk about everything in the project (I17), and now that feeling has shifted as discussions surrounding both negative and positive parts in the project can take place. This aligns with both Walker & Lloyd-Walker (2023) and Thomson & Perry (2006) regarding trust being a critical factor in building relationships, information sharing, and collaboration in problem solving, overall

leading to a better climate at work. Showing that trust had been impacted during the previous constellation and is now perceived as being better.

These findings further emphasises how actors use sensemaking, and in this case cues, as an indication of collaboration quality. According to Gacasan et al. (2016), these cues are important for sensemaking during ambiguous events. As actors rely on observations to create interpretations of what is happening where in this case, faster responses, reduced filters and a climate described as more at ease are interpreted as evidence for improved collaboration, rather than project performance parameters. This further demonstrates how actors value this project based on softer parameters in times of sensemaking, as this reconfigured state in the project has been described in these terms by most interviewees. This would imply that collaboration cannot simply be evaluated through performance outcomes alone, instead it further requires soft parameters to be evaluated to grasp its true collaborative nature.

Since disputes were minimized and invoices were being paid in full as one interviewee mentioned, this optimistic and well-working phase of the project could be seen as an early period of the reconfigured arrangement. As contact between the client and consultant was limited and practically nonexistent before, this could be seen as the start of a new project where problems have not yet come to light, being a “honeymoon phase” very everyone is happy and on good terms. This description from interviewees could be interpreted as actors ongoing efforts to establish shared ways of working and expectations while the new arrangement is settling (Rönndahl et al., 2025). An important acknowledgement is that this alignment concerns relational experience, and not the actual performance. Collaboration is generally interpreted as more transparent and less conflict driven, but that does not automatically imply shared interpretations of how the project performs in terms of cost, speed, or effectiveness.

6.3.2 Shorter Communication Paths and the Changing Nature of Interaction

A second area where interviewees broadly agreed was that the communication pathways have become shorter and more direct (Section 5.4.1), where this is perceived to promote collaboration. Since megaprojects are multi-actor systems spanning over several permanent organisations, much of the difficulty occurs at the interfaces between actors where governance and operational responsibilities must align (Winch, 2014). Removing intermediary layers between actors can reduce filtering and delay in answers, making coordination more immediate and allowing issues to be clarified closer to the project owner.

However, while shorter communication paths were widely seen as beneficial, our findings also suggest that this shift altered the nature of interaction, rather than simply improving it. Removing the contractor as an intermediary enabled more direct alignment between designers and reviews, but it also altered coordination responsibilities to the actors now interacting more closely (Section 5.4.1). This aligns with Winch (2014) who emphasizes that in large infrastructure projects, coordination challenges are not eliminated but rather shift across interfaces as governance structures change. As the client decided to terminate the turnkey contractor, this has forced them to adapt that responsibility, ultimately creating a new interface challenge as interviewees mention it feels like starting over on a “blank paper” (I2).

6.3.3 Divergent Interpretations of Efficiency, Risk, and Control

While interviewees generally agree on improved tone and direct interaction, they differ in how they view the reconfigured setting in terms of efficiency, incentives, risk and control. Multiple people from the consultant described that efficiency and control has been lacking after the termination, as they both describe that the client is understaffed and not clear on what they want (Section 5.3.3). This could be linked to the clients previously role described as being in the “passenger seat” and not having control, where this still have not been adapted to the full extent necessary as they view it as “unnecessary” for more staff.

This can be connected to how different institutions prioritize. Public sector actors tend to prioritize accountability, transparency, and long-term societal value, while private actors are more inclined to be efficient, profitable, and thorough risk management (van Marrewijk et al., 2016). Since actors evaluate project conditions through these different value systems, this can be viewed as either a necessary trade-off in restoring control and transparency, or as weakening of performance pressure and efficiency incentives. This shows how the consultant views the absence of direction as a lack of efficiency, while the client views it as necessary to gain oversight. This indicates that differences does not appear only from structural differences, but also from how actors use sensemaking for ongoing events in the project.

The description of the client sitting in the “passenger seat”, only being able to express opinions and having limited influence over the project can be linked to the client losing control. As Winch (2014) emphasizes that the central role of the project owner in governing complex megaproject systems even if delivery is delegated. With the turnkey arrangement, this governing role appears to have been reduced, increasing the distance between the client and daily decision-making. As noted by I10, one could argue that the client has chosen the wrong procurement form and if they wanted increased control they then should have gone in another direction with the contract (Section 5.1.3).

6.3.4 Provisional and Person Dependent Collaboration

Lastly, a pattern across interviews describes collaboration as an ongoing process where some areas are dependent on individuals and informal coordination (Section 5.4.3 & Section 5.4.4). Interviewees describe emerging forums and routines, such as standing designated design coordination days and a decision log, while still other routines and roles are still not completely settled. This indicates that most interviewees experience the new order as still being developed and not fully established yet. Coleman et al., (2025) and Abu Dief et al., (2016) explain that contractual termination and renegotiation not only change the legal structures but also reshapes the organisational coordination, this requires actors to rebuild governance routines and working relationships while project delivery continues. This is something reflected in our findings as people must create provisional routines whilst the delivery of the project continues.

The provisional nature of collaboration can be understood as a consequence of disrupted expectations, where previously established roles and routines no longer provide clear instruction for action. Actors must then continuously interpret how to coordinate work, often relying on informal practices and individual initiatives (Section 5.4.3 & Section 5.4.4). In the new contractual setting, collaboration must be

enacted through ongoing adjustments as routines are still largely provisional. This finding can be referred to sensemaking, where ambiguity requires actors to construct workable understandings through interaction rather than rely on formal role descriptions (Weick, 2005). However, sensemaking does not resolve uncertainty but instead sustains collaboration based on provisional coordination.

Interestingly, interviewees seem to deviate how stable the current collaboration feels. Some interviewees describe routines as largely re-established, while others describe it as ongoing adjustment with temporary solutions (Section 5.4.4). This variation is consistent with the description of megaprojects as fragmented multi-actor systems, where different actors may experience the state of collaboration differently depending on their role, access to coordination forums, and the parts of the project they engage with most closely (Winch, 2014; van Marrewijk et al., 2008; Af Hällström, 2024).

7 Conclusion

The aim of this thesis was to explore how project actors interpret and respond to contractual disruption within the setting of a large-scale infrastructure project. A particular focus is on how roles, responsibilities, and collaboration are understood and rebuilt in practice. The empirical research involved an in-depth case study of the E05 Korsvägen project where a major turnkey contract was cancelled in September 2025 during the phase of construction. The purpose was to contribute to a greater understanding of how organising unfolds in practice under conditions of uncertainty. Also, how actors make sense of changing expectations, responsibilities and relationships in a reconfigured project setting. To explore this, three research questions were formulated:

RQ1: *How did project actors interpret contractual disruption and make sense of the uncertainty created?*

RQ2: *How do project actors make sense of roles, responsibilities, and collaboration following contractual disruption in a large-scale infrastructure project?*

RQ3: *How do project actors interpret and reconstruct collaboration within the reconfigured setting, and where do their interpretations align or diverge?*

To investigate these questions, a qualitative case study approach was used. The study used 17 narrative interviews, primarily focusing on individuals with coordination responsibilities between organisations or had some decision-making authority. This allowed the researchers to identify patterns and variations in how the collaboration, roles, and responsibilities were understood in both organisations.

RQ1: How did project actors interpret contractual disruption and make sense of the uncertainty created?

The findings illustrate that contractual disruption was not experienced and interpreted as an isolated contractual or technical event. Instead, it was viewed as a major organisational rupture that created uncertainty over time across the project team. Seen from the lens of formal governance, the termination was perceived as a necessary decision to address issues related to lack of control and cost escalation. In practice, a different interpretation emerged among project actors. The disruption was widely described as abrupt, badly communicated, and hard to understand. This fact led to an absence of a shared understanding of what had occurred or how to move forward.

Because of this, formal structures did not help to make sense of the situation. Instead, project actors had to construct their own interpretations based on available information, prior experiences, and interaction with others, triggering intensified sensemaking. How actors made sense of the situation varied depending on their roles and access to decision-making processes. Therefore, fragmented and uneven sensemaking appeared across the project organisation. Furthermore, the event was understood in relation to the past (retrospective sensemaking), particularly as it occurred at a moment when routines had begun to stabilise, which intensified its perceived impact.

These findings show that sensemaking was not process only occurring once but an ongoing and situated activity. The uncertainty was continuously interpreted and managed in practice. The findings therefore point towards that contractual disruption does not result in clarity or alignment straight away, but it takes time for things to fall in place. Prolonged and distributed sensemaking processes were initiated through which actors gradually construct meaning and reorient their actions.

RQ2: How do project actors make sense of roles, responsibilities, and collaboration following contractual disruption in a large-scale infrastructure project?

As seen in the findings, there is a clear disconnect between how roles, responsibilities, and collaboration were formally refined after the contract termination and how they were enacted and understood in practice. On paper, a redistribution of responsibility was made, and the client took on a more central role in terms of coordination and decision-making. However, a different reality emerged among project actors. It was described by many that the new structure did not provide immediate clarity, and they struggled to understand what their roles entailed on a daily basis. Actors had to interpret responsibilities through ongoing interaction, experience, and emerging situations, rather than relying on formal definitions.

Also, collaboration mechanisms were not restored through the new contractual setup but had to be rebuilt in practice. Some actors felt that communication was more direct and experienced improved transparency in the new set up. However, this was also accompanied by increased coordination demands and greater individual responsibility. Additionally, actors' interpretations of roles and collaboration differed across the project organisation, depending on their roles, access to information, and perceived capability.

Accounts from the interviewees clearly show that roles, responsibilities, and collaboration are not simply defined by contracts but are constructed continuously through everyday practice. Project participants played a key role in shaping how it functioned in reality through their daily work, although they were not responsible for designing the governance structure. Their actions demonstrate that organising in projects that face disruption depends on ongoing sensemaking, interaction as well as adaptation, rather than on formal reconfiguration alone.

RQ3: How do project actors interpret and reconstruct collaboration within the reconfigured setting, and where do their interpretations align or diverge?

The findings show that participants interpret collaboration in the reconfigured setting as improved in relational terms, particularly through more direct communication, increased transparency, and less conflict-driven interactions. Both the client and consultant interviewees describe closer contact, reduced filtering of information, and faster responses, showing a shared understanding that collaboration has become more open and direct. These improvements are primarily interpreted through cues such as tone in meetings responsiveness, and collaborative nature, rather than through performance outcomes.

Differences occurred in aspects such as efficiency, control, and performance. The consultants often interpreted the absence of strong direction and follow-up as reduced efficiency and weakened control, whereas client interviewees emphasized increased transparency and the necessity of oversight. These differences reflect how interpretations of collaboration are shaped by actors roles, responsibilities, and institutional priorities, rather than having a shared framework for evaluation. The study also shows that collaboration is not experienced as a stable or fully established system. Instead, it is described as ongoing and provisional, where coordination is dependent on individuals and informal practices. Actors must continuously interpret how to collaborate in practice, relying on emerging routines, interpersonal relationships, and situational judgment. As formal structures are not entirely in place, actors must reconstruct collaboration through everyday interaction.

7.1 Recommendations

Based on the findings from this master thesis, recommendations applicable similar instances for both client, contractors and consultant organisations in mega infrastructure projects have been formulated. A central insight for industry actors is that major disruptions, such as contractual termination, does not only alter formal structures but creates prolonged organisational uncertainty, where roles, routines, and collaboration must be continuously reinterpreted rather than restored.

As highlighted in the study, actors rely on cues, interaction, and prior experience to make sense of the situation when clear structures are lacking. This is particularly important as it shifts the focus from implementing structural changes to facilitating ongoing interpretation and alignment across actors.

For future major disruptions and contractual terminations, the following could be considered for a smoother and better organised transition. To support transitions in cases of major disruptions, organisations should actively mitigate knowledge loss by retaining key personnel and capturing tacit knowledge such as decision rationale and design intent. Early, clear, and continuous communication is extremely important to reduce uncertainty and prevent fragmented interpretations. Information gaps should actively be addressed through structured processes rather than assuming they will be resolved over time. Formal redistribution of roles should be complemented by support that helps actors translate responsibilities into practice, including the establishment of structured forums to clarify roles and responsibility. Furthermore, responsibility must be aligned with organisational capacity in terms of staffing, expertise, and systems, supported by investments in internal competence and coordination capabilities. Ensuring ownership and access to critical data and documentation is also necessary during a contractual termination. Finally, organisations should recognize that collaboration must be actively reconstructed through interaction and alignment, supported by spaces for joint interpretation, and that stabilization takes time and should not be expected to occur immediately.

7.2 Future Research

Future research could further develop the insights from this study by exploring how sensemaking processes evolve over longer time periods following contractual disruptions. This study captures a transitional phase, studies over a longer period

could provide deeper insights as to how and when coordination structures stabilise, if at all. This paired with observational studies to see how this is enacted in practice rather than purely interpreted could help practical understanding.

There is also a need for comparative research across different contractual forms and project types to examine whether similar patterns of uncertainty, role ambiguity, and provisional coordination emerge in other contexts. Comparing projects that maintain versus terminate contractual arrangements could provide insights into the consequences of disruption.

Additionally, future studies could focus more closely on the relationship between formal governance structures and informal coordination practices. This study highlights the importance of informal mechanisms, but further research could investigate how these interact with formal systems over time.

Finally, further research could explore the role of sensemaking in shaping performance outcomes in megaprojects. While this study shows that actors interpret collaboration through relational cues, the extent to which these perceptions influence efficiency, risk, and project delivery remains an open question.

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Appendix I

Interview Guide

Can you describe your role in the project, how long you have been involved, and what role you have within the current contract structure compared to the previous one? What is different, if anything?

From your perspective, can you describe how the situation evolved – from the termination of the previous contract to the introduction of the critical contract?

Looking back, were there distinct moments or decisions that strongly shaped the project?

How did you interpret the situation when the contract was terminated? (How were disruptions related to the termination and in the preparation of the new contracts handled?)

What did it mean for the project in your opinion?

What created the most uncertainty?

What was it like to work with the previous contractor before the termination?

What do you feel are the differences now, working more directly with the consultants vs. when you previously worked with the previous contractor?

What was it like during the period when the termination took place? If you look at the time about a month before the termination until the work started to work well with the client?

What is it like to work with the client now?

What makes/did the communication or collaboration better? (Adapt depending on whether the client or the previous contractor was perceived as better) Are there any specific occasions or decisions?

Do you have any contact with the critical contractors? (If yes, how do you understand your role and responsibilities? Are the expectations clear?)

In other interviews, we have heard that client did not think they could influence the project and the end product. Does this match your image? And if so, do you think that the client in their old role was technically capable of that?

Are the clients' expectations clear? Are your role and responsibilities clear within the new contract?

How are mandates and powers communicated between the actors and internally?

In what ways does this differ from the previous project organisation, if it does?

How would you describe collaboration within the current contract solution?

- o What works well?
- o What is challenging?

Do you experience this as "business as usual", or does it feel different?

- o In what way?

What is the current situation with the client? Has everything fallen into place or are there ambiguities and/or coordination problems?

Do you think that the working method today is stable and clear and that there are clear routines for meetings, communication forums, etc.?

What was the relationship between the main consultants and other consultants? Any collaboration or everything needed to go through the the previous contractor? Do you feel that the new contract promotes collaboration more?

How would you describe the relationships between the organisations in the current context?

Have they changed compared to before?

What has been done in connection with getting the project to a well-functioning point after the cancellation?

What were your strategies when the cancellation took place so as not to lose experience and knowledge?

Are there any problems in the work with the the client? Is there anything you feel missing?

How is missing information handled?

How many consultants were there under the previous contractor?

You have previous experience of protection contracts and critical contracts. Can you benefit from this experience in this project?

How many have gone from the previous contractor to you at the client side? And how do you benefit from this knowledge that they possess?

Which cross-border working methods (Client-Consultant-Contractor) work better now than before?

Based on the questions we asked today, do you have any people you think we should interview who would have been relevant?

Specific questions for the new contractors:

- When you entered the project under the critical work contract, how did you understand the situation and your role within it?
- How do you interpret your mandate and responsibilities within the current contractual arrangement?
- How would you describe collaboration with the client and consultants in this setting?
(Does it feel different from other projects you have worked in? In what way?)
- How do you feel that the communication works between the different parties?
- To what extent do you experience uncertainty or ambiguity in the current arrangement, and how do you make sense of it in practice?
- What information or events were most important for you to understand what was expected of you in the new situation?
- Do you feel that the division of responsibilities between the actors is clear? Why or why not?
- Is there anything specific in the organisation or your way of working that has facilitated the takeover of the project from its earlier stage?
- What risks have you seen in taking over the project?