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Discursive struggles for legitimacy in sustainability transitions controversies: The case of battery metals in Quebec

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Abstract

The challenge of how to promote and govern a transition towards sustainability has received much attention both in the political arena and in social-science research. Therefore, mentioning the idea of 'transition' has become a frequent element in discourses on environmental issues (Audet, 2012; Leipold et al., 2019; Jenkins et al., 2018). Little is nevertheless known about the emergence of a new type of controversies within sustainability transitions, in which views on environmental protection seem to collide (Horsbøl, 2020). This thesis consequently poses the following research question: *How do actors discursively struggle to legitimize themselves throughout sustainability transitions controversies?* This research thus contributes to an understanding of how different actors involved in these sustainability transitions controversies discursively struggle for legitimacy to further their own interests and not least (de)legitimize other understandings of what constitute environmental protection. As such, attempting to shape how renewable technologies are implemented in sustainability transitions. Through the lens of critical discourse analysis (CDA), this thesis jointly utilizes Fairclough's three-dimensional framework and Vaara and colleagues' framework for discursive legitimacy strategies to build an analytical model. By adopting a longitudinal embedded-single-case study design (Yin, 1994), this research examines the ongoing controversy in Quebec concerning new mining developments for 'battery metals', required for the batteries powering electric vehicles (EVs). More specifically, it abductively examines two controversies caused by the development of two mining projects, using the main data sources of primary data from interviews with key informants and secondary data, such as news articles, press releases, Government communication, and reports. The emergent findings of this thesis show that the moralization of environmental discourse overrode other discourses used in the legitimation struggles in the controversies. Meanwhile, the controversies were largely shaped by the contesting perceptions on what constitutes environmental protection and thus what sustainability transitions should look like. The research consequently fills a gap in extant sustainability transitions literature that hitherto has focused on legitimacy struggles between proponents and opponents of new renewable energy technologies. Moreover, this work advances the literature on legitimacy by developing a new subcategory of *strategic neutrality* in Vaara and colleagues' framework for discursive legitimacy strategies. Furthermore, it suggests multiple practical implications for extractive companies, communities, and governments part of these sustainability transitions controversies. Conclusively, this research is highly relevant considering future prospects, as constitutes a window into the divisive opinions over energy and environmental issues during the commencing steps of the transitions towards sustainability, both locally and internationally.

Keywords: sustainability transitions, legitimacy, discourse, controversies, mining industry, CDA

Abstrait

Le défi afin de promouvoir et gouverner une « transition » vers le développement durable fait office de beaucoup d'attention tant au sein de l'arène politique qu'au sein de la recherche en science sociale. De ce fait, mentionner l'idée d'une « transition » est devenu un sujet fréquemment soulevé lors des débats sur les questions environnementales (Audet, 2012; Leipold et al., 2019; Jenkins et al., 2018). Peu d'informations malgré tout est connu concernant l'émergence d'une nouvelle controverse au sein de la transition vers le développement durable, à travers laquelle les visions en terme de protection environnementale semblent diverger (Horsbøl, 2020). Conséquemment, la présente thèse soulève la question scientifique suivante: *Comment les acteurs luttent de façon discursive afin de se légitimer à travers les controverses entourant la transition vers le développement durable?* La présente recherche contribue à la compréhension des défis vécus par les différents acteurs impliqués au sein des controverses discursives entourant la transition vers le développement durable pour légitimer leurs propres opinions et intérêts. Entres autres, tenter d'influencer comment les technologies renouvelables sont impliquées dans la transition vers le développement durable. À travers la lentille d'une analyse critique des débats (CDA), cette thèse utilise conjointement le cadre tridimensionnel de Fairclough's et Vaara et collègues ainsi que la structure des pour la stratégie sur la légitimité discursive afin de construire un modèle d'analyse. En adoptant un modèle d'étude cas unique longitudinal avec deux unités d'analyse (Yin, 1994), la présente recherche examine la controverse actuelle au Québec concernant les nouveaux développements miniers pour les « métaux de batterie », requis pour la batterie alimentant les véhicules électriques (EV). Plus spécifiquement, il examine par abduction deux controverses découlant du développement de deux projets miniers et les principales sources d'informations proviennent de donnés primaires obtenus lors d'entrevues avec des intervenants clés et des données secondaires tel que des articles d'actualités, des communiqués de presse, des informations gouvernementales et divers rapports. Les constatations de cette thèse démontrent comment la moralisation des débats environnementaux surpasse les autres débats soulevés dans la lutte sur la légitimation au sein des controverses. Pendant ce temps, celles-ci, étaient largement influencées par les perceptions contestées concernant qu'est ce qui constitue la protection environnementale et de ce fait, ce que la transition vers le développement durable devrait être. Conséquemment, cette recherche comble un vide dans la littérature concernant la transition vers le développement durable qui jusqu'alors s'est concentrée sur la lutte concernant la légitimité entre les partisans et les adversaires des nouvelles technologies d'énergie renouvelable. D'autant plus, ce texte approfondie la doctrine sur la légitimité en développant une nouvelle sous-catégorie de *neutralité stratégique* dans le cadre de Vaara et colleagues sur les stratégies discursives légitimes. Par ailleurs, il suggère de multiples implications pratiques pour les compagnies, communautés et gouvernements extractifs qui luttent pour la légitimation de la transition vers le développement durable au sein des diverses controverses. En conclusion, cette recherche est hautement pertinente considérant les perspectives d'avenir, qui constitue une fenêtre d'ouverture au sein des opinions divergentes sur l'énergie et les questions environnementales durant les premières étapes de la transition de l'énergie tant localement qu'au niveau international. **Mot clé:** transition vers le développement durable, légitimité, débat, controverse, industries minières, CDA

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List of abbreviations and acronyms

ALTP: The Association for the Protection of the Lac Taureau

BAPE: Bureau d'audiences publiques sur l'environnement

CCPE: Citizens Committee for the Protection of the Esker

CDA: Critical discourse analysis

COPH: Coalition des Opposants á un Projet Minier en Haute-Matawinie

CSR: Corporate social responsibility

EV: Electric vehicle

MLF: Multi-level framework

MNE: Multinational enterprise

NGO: Non-governmental organization

NMG: Nouveau Monde Graphite

REVIMAT: Le Regroupement Vigilance Mines of Abitibi and Témiscamingue Group

SD: Sustainable development

SLO: Social Licence to operate

1. Introduction

> *"We are of the opinion that no mining project, whether or not it targets the exploitation of critical and strategic minerals in the name of the energy transition, can ignore the need to adequately respond to the legitimate questions that are raised. The urgency to respond to the climate crisis cannot, in any case, be used as a pretext to turn corners and prevent us from figuring out whether a project of this magnitude, actually contributes to worsening the ecological, climate, and social crisis, which threatens our societies more than ever"*
> (Spokesperson for the Citizens Committee for the protection of the esker (CCPE), Bureau d'audiences publiques sur l'environnement (BAPE) hearings, March 1, 2020)

Global efforts to address the impacts of climate change are approaching a transition towards a low-carbon future (Arrobas et. al., 2017; World Bank, 2020; Church & Crawford, 2018). The challenge of how to promote and govern a transition towards sustainability has consequently received much attention both in the political arena and in social-science research (Markard et al., 2012). Therefore, mentioning the idea of 'sustainability transitions' has become a frequent element in discourses on environmental issues (Audet, 2012; Leipold et al., 2019; Jenkins et al., 2018), understood as purposive and deep-structural changes in traditional industries towards sustainable modes of production and consumption (Markard et al., 2012).

Conflicts and struggles nevertheless arise due to prevailing disagreement regarding the most desirable pathways of these sustainability transitions (Markard, 2017; Köhler et al., 2019; Boiral et al., 2019). As such, while past discussions often concerned the juxtaposition of environmental protection and economic development (Novek & Kampen, 1992), a new type of conflict has emerged in which views on environmental protection seem to collide (Horsbøl, 2020). This, thus, emphasizes that understandings of notions associated with sustainability transitions, such as 'green', 'just', and 'sustainability' are interpretable and ambiguous. Sustainability transitions controversies consequently constitute struggles over the meaning of these and not least what a fair and just transition constitutes (Markard, 2017; Horsbøl, 2020). Realizing transitions towards sustainability therefore not only concerns the instrumental implementation of a commonly agreed-upon goal, but also the consideration of the different

understandings of environmental values and how these perspectives can be integrated (Horsbøl, 2020).

While controversies within sustainability transitions are located at the crux of the environmental debate, practical knowledge and scholarly attention on the subject nevertheless remain limited (Horsbøl, 2020). Extant sustainability transitions research has hitherto focused on how actors either legitimize or delegitimize new renewable energy technologies in these transitions (Boiral et al., 2019). Research, however, has yet to uncover the dynamics of the struggles and controversies that arise due to the different perspectives and opinions about the implementation of these. Understanding these sustainability transitions controversies is however relevant, as they can potentially prepare us for more extensive struggles in the future steps of the transitions towards sustainability (Horsbøl, 2020).

This research consequently aims to fill the gap in the literature by focusing on how different actors throughout these sustainability transitions controversies discursively struggle for legitimacy to further their interests and not least (de)legitimize other understandings of what constitute environmental protection. Understanding legitimacy as a process of negotiation thus enables the study of the socially constructed sense of appropriateness of for example environmental protection and just transitioning (Matejek & Gössling, 2013; Suddaby et al., 2017; Vaara & Monin, 2010). To study this, this research mobilizes insights from sustainability transitions literature, legitimacy research, and critical discourse analysis (CDA). It consequently poses the following research question:

How do actors discursively struggle to legitimize themselves throughout sustainability transitions controversies?

This thesis will address this issue by studying the ongoing controversy in Quebec concerning new mining developments for 'battery metals', required for the batteries powering EVs. The Government of Quebec is, in efforts to take advantage of the new supply chain taking shape around the growing EV market, implementing strategies to become a leader in this new industry and electrify transportation in the province (Propulsion Quebéc, 2019). As this entails

exploiting the abundance of battery metals located in the province, many new mines are consequently being developed to source the new EV battery value chain (Propulsion Quebéc, 2019). Furthermore, as many of these new projects are located in ecologically sensitive areas, they are being contested with reference to protection of the landscape and water sources, as well as the quality of life for the local communities. These new mining developments have, thus, caused public discussion and controversy, which constitute a window into the divisive opinions over sustainability and environmental issues during the commencing steps of the sustainability transition, both nationally and internationally.

To study this sustainability transitions controversy, this thesis adopts a longitudinal embedded-single-case study design (Yin, 1994). Two mining developments that have caused controversy have consequently been selected, the Authier and the Matawinie project, contributing opportunities for more extensive analysis of the two controversies, while ultimately enhancing the insights into the case as a whole (Farquhar, 2012; Yin, 1994). Moreover, the two controversies are approached as a process, enabling an understanding of how the controversies evolved over time and consequently how certain actions may have affected the context and thus later phases in the controversies (Langley, 1999).

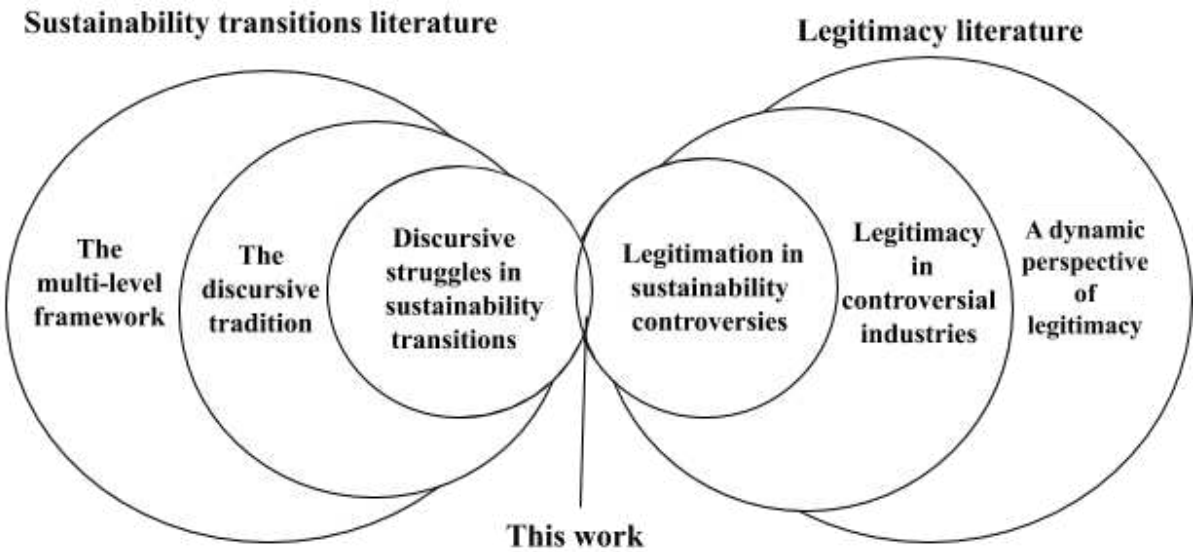
This thesis is structured as follows. First, chapter two presents the literature review. Two main bodies of literature informing this research, sustainability transitions literature and legitimacy research, are revised. Then, chapter three presents the conceptual framework of this thesis through revising CDA, constituting the lens through which this work is seen. In addition, this chapter introduces the theoretical frameworks of Fairclough's three-dimensional framework and Vaara and colleagues' framework for discursive legitimacy strategies that collectively inform the analytical model of this work, which is lastly presented. Chapter four elaborates on the methodology of this thesis, which includes a description of the research strategy, data collection and analysis, ethical considerations, and quality criteria of this research. Chapter five presents the findings of the research by firstly providing an overview of the research context, a within-case analysis of the two controversies, and lastly a cross-case analysis. Chapter six discusses the main findings of this thesis and how they complement extant literature on legitimacy and sustainability

transitions. Lastly, chapter seven presents the conclusion of this thesis, which includes elaborations of the theoretical and practical implications of this research. Finally, this chapter details the limitations of this work and suggestions for future avenues of research that these provide direction of.

2. Literature review

This section presents the literature review of this thesis. As such, it revises the two main bodies of literature: sustainability transitions literature and legitimacy research, which collectively contribute to an understanding of how actors discursively struggle for legitimacy in sustainability transitions controversies. The figure presented below demonstrates how this work places itself in a gap identified in the intersection between sustainability transitions and legitimacy literature relevant to this thesis.

Figure 1: Situation of this thesis



Author's own elaboration

2.1 Sustainability transitions literature

2.1.1 Sustainability challenges and transitions

The world faces major challenges in different spheres of society (Markard et al., 2012). For instance, our energy supply is experiencing rapid depletion of finite natural resources such as clean water, oil, and fish stocks (Geels, 2010). Air pollution and greenhouse gas emissions,

nuclear risks, energy poverty, and general uncertainties concerning both short- and long term security of supply prevail in the sector (Markard et al., 2012). The transportation sector, deriving 18% of global greenhouse gas emissions (Naaeke, 2017), furthermore faces major challenges such as local air pollution, congestion of especially road traffic, and dependence on depleting fossil fuels (Markard et al., 2012). While these sustainability challenges constitute related environmental and social problems due to their ecological and humanitarian consequences, the world is also experiencing pressing economic problems. In many parts of the world, much of the existing infrastructures are in need of renewal and expansion, which will ultimately require broad-scale financial efforts (Markard et al., 2012).

The challenge of how to promote and govern a transition towards sustainability has consequently received much attention both in the political arena and in social-science research (Markard et al., 2012). Hence, the idea of "transitioning" is now occupying a space next to other broad subject matters such as sustainability and responsibility (Audet, 2012; Leipold et al., 2019) within political discourses on environmental issues (Audet, 2012; Leipold et al., 2019; Jenkins et al., 2018). An emerging field of research on *sustainability transitions* has consequently coevolved with societal change and public discourses. Considering the sustainability challenges society faces, this new field of research is highly relevant, as it offers insights into the analytical and practical implications of these transitions that society is just starting to understand (Markard et al., 2012).

2.1.2 Key concepts

To facilitate further understanding and elaborate on sustainability transitions literature, key concepts of grand sustainability challenges, transitions, socio-technical transitions, and sustainability transitions will firstly be introduced below.

Grand sustainability challenges, such as climate change, hazardous waste, or poverty are particular types of problems, also referred to as "grand challenges" or "wicked problems" (Markard, 2017). They are extraordinary societal challenges due to a number of defining features: they are often complex and intertwined problems that are mostly ill-defined or poorly understood. They have multiple and possible ambiguous causes and different dimensions

including social, technological, and ecological. Their scope often exceeds the 'jurisdiction' of single actors, the 'topical' scope typically involves entire industries (e.g. food, energy, transportation) and the temporal scope is often intergenerational. Meanwhile, these problems are highly time-sensitive, as their scale threatens natural ecosystems, societal cohesion, and the well-being of society (Markard, 2017). Research, thus, emphasizes that the consequences of these problems will only aggravate without action to mitigate them (Markard, 2017).

Transition is literally a process of change. In transitions research, it refers to: *"... the process of change from one system state to another via a period of nonlinear disruptive change. Such systemic change, by definition, is the result of an interplay of a variety of changes at different levels and in different domains that somehow interact and reinforce each other to produce a fundamental qualitative change in a societal system."* (Loorbach et al., 2017, 605). As such, transitions denotes a change in the state of a complex system (Loorbach et al., 2017)

Socio-technical transitions are processes in which traditional industries such as food, energy and transportation fundamentally change (Geels, 2010; Markard, 2017). While major technological changes are central in the majority of research on transitions, they are mostly viewed as multi-dimensional, as they include interdependent changes in other fields such as infrastructures, organizational structures, user practices, societal values, and policies (Markard, 2017). Hence, they require that multiple actors such as industry, policymakers, and civil society transform these different fields (Geels, 2010).

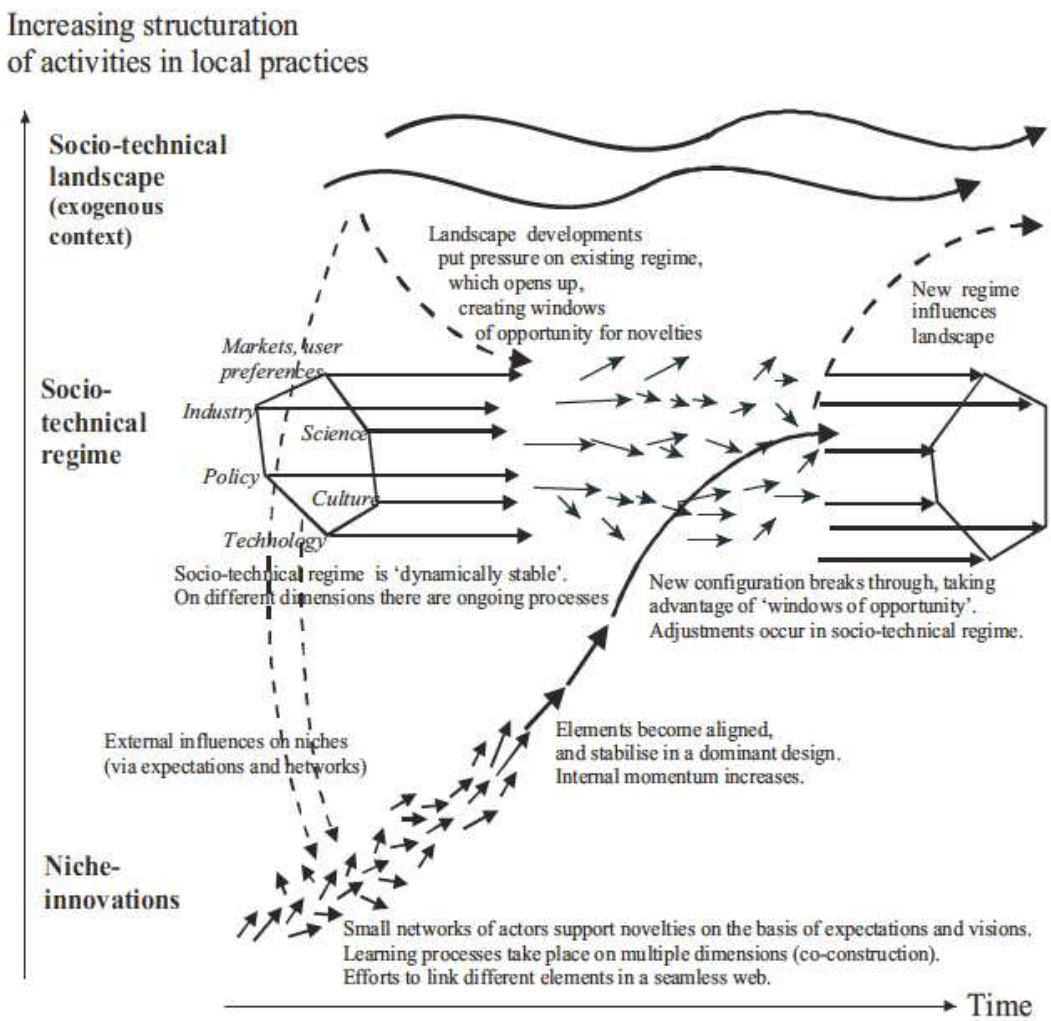
Sustainability transitions are defined as: *"... long-term, multi-dimensional, and fundamental transformation processes through which established socio-technical systems shift to more sustainable modes of production and consumption"* (Markard et al., 2012, 956). Sustainability transitions are purposive (Geels, 2010), as they address perpetual environmental problems, the grand sustainability challenges, guided by long-term goals such as international political agreements (Smith et al., 2005; Markard, 2017; Köhler et al., 2019). These central characteristics differentiate them from other socio-technical transitions, which can be characterized as 'emergent' e.g. the chase for commercial opportunities related to new technologies (Geels, 2010).

2.1.3 Founding theoretical frameworks

In the field of sustainability transitions literature, founding theoretical frameworks have been developed to systematically approach the main perceptions within sustainability transitions (Köhler et al., 2019). Within these different theoretical approaches, the *multi-level framework* (MLF) can however be highlighted as a primary theoretical framework in the literature (Geels, 2010; Markard, 2017; Köhler et al., 2019). The multi-level approach examines the interplay between three different levels of sustainability transitions: niches, regimes, and landscape, as it aims to identify patterns and dynamics of radical transformation towards sustainability (Geels, 2010; Geels, 2011; Audet, 2012; Markand, 2017; Loorbach et al., 2017). Socio-technical regimes are defined as relatively stable structures of institutions (societal and technical norms, regulations. standards, policies), techniques, artifacts, rules, practices, and networks (individuals, organizations, associations, NGOs, public authorities, policymakers) that control what the "normal" development and utilization of technologies is (Smith et al., 2005; Markard, 2017). Regimes manifest interests and convictions on technological practices and how these can be improved most efficiently (Smith et al., 2005). This makes them highly resistant to change, which explains nonlinear dynamics, such as path-dependencies and lock-ins, in both the development and transformation of these regimes (Markard, 2017).

Oppositely, niches are protected spaces where radical innovations can emerge and develop unaffectedly by the pressures of the prevailing regime (Markard, 2017). The landscape constitutes the socio-technical externalities, which exerts pressure on the socio-technical regime and in turn opens up the opportunities for niches to break through the regime and eventually replace its technologies and structures (Geels, 2010; Markard, 2017). Subsequently, interactions between the niches and regimes will occur on multiple dimensions such as markets, regulations, cultural meanings, and technologies, where interpretive actors collectively attempt to navigate in the transitions (Köhler et al., 2019).

Figure 2: The theoretical framework of the multi-level perspective



Source: (Geels, 2010, 28)

Three other significant theoretical frameworks have furthermore developed within the literature on sustainability transitions: the technological system approach (Hekkert et al., 2007; Bergek et al., 2008), strategic niche management (Rip & Kemp, 1998; Geels & Raven, 2006; Schot & Geels, 2008) and transition management (Rotmans et al., 2001; Loorbach, 2010). While these frameworks enable the study of technologies, policies, and niches within sustainability transitions, this work builds on the insights from the theoretical framework of the multi-level perspective. As such, because the framework facilitates analysis of how socio-technical

externalities effect and exert pressure on the socio-technical regime. This consequently enables discussions and analysis of how interpretive actors within multiple dimensions - markets, regulations, cultural meaning, and technologies - "fight, negotiate and build coalitions" to navigate the transition when these new configurations "break through" to the socio-technical regime (Köhler et al., 2019). This is especially relevant to this work, as the discursive struggles for legitimacy in sustainability transitions controversies take place within these adjustments in the socio-technical regimes.

2.1.4 Research traditions

Sustainability transitions is an emerging field of research, which has expanded and developed rapidly over the past two decades in the context of growing public and scientific interest in major transformations towards sustainability (Audet, 2012; van den Bergh et al., 2011; Markard, 2017; Loorbach et al., 2017). It emerged in the intersection between policy and different scientific communities during the 1990s, grounded within two main clusters of intellectual roots (Loorbach et al., 2017). One cluster is innovation research within science and technology, history of technology, evolutionary economics, and innovation policy. The second closely related cluster is the partly overlapping fields of environmental studies and sustainability sciences, including environmental policy and sustainability governance (Loorbach et al., 2017). Sustainability transitions research is consequently multidisciplinary, as it gathers researchers from various disciples such as science and technology studies, sociology, political sciences, management, and the natural and engineering sciences (Markard, 2017, 8).

Research is primarily motivated by the sustainability challenges society face; aggregates of contemporary environmental problems such as climate change, degradation of ecosystems, waster, poverty, hunger, or depletion of finite natural resources (Geels, 2010; Markard, 2017). These challenges are created and amplified by unsustainable consumption and production patterns in sectors such as food, energy, and transportations (Markard, 2017; Loorbach et al., 2017; Köhler et al., 2019). Research, thus, recognizes that these problems cannot be addressed by incremental improvements and optimizations, but require deep-structural changes in

traditional industries. These changes are referred to as *sustainability transitions* (Köhler et al., 2019). Markard (2017) explains this in the following way:

"*Many transition scholars share a common phenomenological interest in sustainability and sustainable transformation of industries, technologies, societies or lifestyles and there is a widely shared (normative) understanding that most established sectors need to change fundamentally in order to become more sustainable in the long run."* (8).

Hence, this movement of research is rooted in the realization that new research methods are needed to address and examine the dynamics within societal problems and to guide the development of systematic solutions to address them (Loorbach et al., 2017). To this end, research is focused on explaining and conceptualizing how these radical changes can occur in society (Köhler et al., 2019). The unit of analysis of sustainability transitions research is consequently on the 'meso' level, contrary to other sustainability discussions of the 'macro' level (e.g. changing the nature of capitalism) and 'micro' level debates (e.g. altering individual choice) (Köhler et al., 2019).

As research on sustainability transitions has increased dramatically within the last ten years, new concepts and subtopics have been mobilized and investigated in order to deal with the complexities of transitions (Markard, 2017; Köhler et al., 2019). While early work was focused on analyzing transitions in socio-technical systems (e.g. agriculture and mobility) (Markard, 2017; Loorbach et al., 2017), research has broadened even more in its focus towards considering societal systems in general (e.g. regions and cities) and more reflexive governance for sustainable development, such as transition management (Loorbach et al., 2017). Loorbach and colleagues (2017) describe this evolution and multitude of work on transitions as "intellectual expansions" within the research. The authors state the following:

"... intellectual expansions are not just a matter of additional disciplinary perspectives. They represent a shift in the object and dimensions of sustainability transitions: from a focus on sociotechnical systems to a recognition of socio-ecological, socio-economic, and socio-political systems as equally relevant objects of transition." (Loorbach et al., 2017, 603).

Recent intellectual expansions in sustainability transitions research include work on a wide range of subject-matters. Several researchers have focused on power, agency, and politics in transitions (Köhler et al., 2019), thus recognizing several actors (e.g. civil society and market)

and the power relations between these (Loorbach et al., 2017). Other work centers on the role of civil society, grassroots, and social innovation (Sayfang & Haxeltine, 2012; Smith, 2012). Researchers have also put emphasis on socio-economic trends, such as the economic crisis (Loorbach & Huffenreuter, 2013) and new economic phenomena such as economic-financial crisis in sustainability transitions (van den Bergh, 2013). Interestingly, sustainability transitions literature has furthermore begun emphasizing the important role that discourses play in the dynamics of sustainability transitions (Feola & Jaworska, 2019; Geels, 2010; Audet, 2012). This will be elaborated below, as this is the research tradition in which this research aims to make a contribution.

2.1.5 The discursive tradition

The discursive tradition within sustainability transitions literature recognizes the importance of considering culture, discourse, public opinion in the interactions and dynamics of sustainability transitions (Geels, 2010). Audet (2012) analyzes discursive framing of transitions in global environmental policy. The author emphasizes the importance of understanding the ongoing construction of transition discourse, stating the following: *"Studying transition as discourse starts with observing which actors - in society or in global politics - are the bearers of this idea. It aims at revealing where do these actors envision leading the world, and how do they hope to achieve the transition?"* (2). Several researchers have consequently focused on the role that discourses have in relation to change in sustainability transitions. Feola and Jaworska (2019) for example, emphasize the importance of considering discourses as drivers of change in sustainability transitions. The authors argue the following: *"Discourse is central in generating new and alternative imaginaries of the future and in making previously unthinkable alternatives plausible and conceivable"* (Feola & Jaworska, 2019, 1644). Their work comparatively examines sustainability discourses in four civil society sustainability transition proposals. Feola & Jaworska (2019) maintain that it is important to study visions proposed by civil society, as it has developed as a crucial actor in sustainability transitions (Feola and Jaworska, 2019). The authors consequently state the following: *"Environmental and sustainability discourses are central in the politics and governance of transition. They also contribute to shaping social*

imagination, motivations, and the debate around development, sustainability and society's future " (1643).

Other work that assumes an agency perspective on sustainability transitions furthermore emphasizes the enabling and positive role that discourses have in change. Authors argue that discourses play a role in framing and reframing perspectives towards sustainability transitions. For example, when persistent problems are broadly recognized in society, a general societal consensus and discourse will influence where interventions and actions are directed; thus, pushing sustainability transitions (Loorbach et al., 2017). Buschman and Oels (2019) for example, focus on change in the German energy transition. More specifically, the authors analyze the discursive aspects of carbon lock-in by mobilizing the concepts of path-dependency, discursive lock-in, discursive turning points, and frames. They consequently aim to uncover how transition discourses went from occupying a marginal position to gaining political hegemony (Buschman & Oels, 2019). The authors argue that because frames are self-reinforcing, change cannot occur based on rational argumentation. Rather, change occurs when a new discourse is 'locked-in' and gains discursive hegemony. This in turn transpires through a process of discursive turning points, enabling the transition discourse to gain discursive hegemony (Buschman & Oels, 2019).

2.1.5 Discursive legitimacy struggles in sustainability transitions

Especially important to this work is literature that discusses the discursive struggles for legitimacy within sustainability transitions. Geels and Verhess' (2011) work on cultural legitimacy and framing struggles in innovation journeys is consequently particularly relevant to this thesis. By analyzing these journeys, which refer to the uncertain and non-linear alignment process of new technologies, the authors highlight the agency dimension of sustainability struggles, where actors navigate, negotiate and struggle throughout the journey (Geels & Verhess, 2011).

Geels and Verhess (2011) emphasize the importance of what they describe as "cultural legitimacy", which refers to the combination of normative and cognitive legitimacy within the wider society. Their work consequently aims at understanding how cultural legitimacy is created

in innovation journeys (Geels & Verhess, 2011). The authors build on discursive perspectives, to uncover the discursive mechanisms through which new technologies gain legitimacy. The authors write the following: *"... cultural change is a contested process, in which various social groups struggle to influence evolving discourses [...] various groups frame technologies in particular ways [...] these frames compete on public stages to influence the general discourse"* (Geels & Verhess, 2011, 913). Hence, change within sustainability transitions is understood as struggles in which different groups discursively frame technologies to ultimately influence the direction of the innovation journeys. Geels & Verhess (2011) argue that opponents and proponents within socio-technical regimes and niches draw on cultural rhetorics from the landscape level and adjust these frames through "actor credibility, empirical fit, centrality, experiential commensurability and macro-cultural resonance" to increase the salience of their discourses (Geels & Verhess, 2011).

This analysis is especially relevant to this work, as it discusses the discursive struggles of cultural legitimacy that different actors engage in to promote their interests e.g. new technologies within sustainability transitions. There is nevertheless a gap in the literature concerning the struggles over the ways in which these new technologies are implemented when they 'break through' to the socio-technical regimes. It is important to recognize that while actors may adopt discourses of 'green', 'just' or 'sustainability', disagreement prevails regarding the most desirable pathways of sustainability transitions and these terms remain ambiguous (Köhler et al., 2019; Boiral et al., 2019). Hence, while actors support new technologies, solutions to their implementation are complex and cause conflict and struggles (Markard, 2017). This is especially significant as these new technologies cause unwanted side-effects, more significant to some actors than others (Geels, 2010). This work consequently aims to fill this gap in the literature by focusing on how actors struggle for legitimacy regarding the most appropriate way that new technologies become part of the socio-technical regime. This, thus, creates a need to understand more about legitimacy. The next chapter will therefore go into depth with the literature on legitimacy and legitimation in organizational studies.

2.2 Legitimacy and legitimation in sustainability transitions controversies

2.2.1 Definitions of legitimacy in organizational studies

Literature credit Weber (1958) with the introduction of the concept of legitimacy in sociological literature, as he recognized that organizations need continual support from their audiences to survive. More specifically, perceptions from the audience must deem the organization "worthy" of voluntary compliance, which must be justified to ensure their position is legitimate (Weber, 1958). The concept consequently became central in organizational analysis, which meanwhile underwent an intellectual transformation (Suchman, 1995). Scholars reconceptualized organizational barriers and consequently began understanding organizations as 'open systems' rather than 'rational systems'. Organizational dynamics were therefore no longer credited to technological or material imperatives, instead, researchers began to consider their origins in "cultural norms, symbols, beliefs and rituals" (Suchman, 1995, 571). Researchers, drawing on the foundational work of Weber (1958), have subsequently established legitimacy as the anchor-point in the expanding theoretical approaches that consider normative and cognitive forces that "constrain, construct, and empower" organizational actors (Suchman, 1995, 571). The concept has assumed a critical role in understanding the interface between organizations and their environments, with literature especially focusing on approval or disapproval of the organization (Suchman, 1995; Scherer, 2013) and organizational stability and change (Suchman, 1995; Kostava & Zaheer, 1999).

Theorization of legitimacy has traditionally assumed different approaches, which furthermore propose contradictory stances towards legitimacy. Institutional approaches view legitimacy as: *"... congruence with a set of constitutive beliefs in an organization's institutional environment"* (Du & Vieira, 2012, 415) whereas strategic approaches regard legitimacy as an operational resource that can be strategically manipulated (Du & Vieira, 2012; Suchman, 1995). The seminal work of Suchman (1995) however, offers a broad definition of the concept that multiple research subsequently have adopted (Joutsenvirta & Vaara, 2009; Deephouse & Suchman, 2008; Deephouse et al., 2017).

Suchman (1995) defines legitimacy as: "… *a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions"* (574). Legitimacy is thus a socially constructed sense of appropriateness of an organization and its activities, as it reflects congruence between subjective beliefs of the organizations' observers and the behaviors of the legitimated entity (Suchman, 1995). Suchman (1995) describes legitimacy as a perception or assumption that is: "… *possessed objectively, yet created subjectively… "* (Suchman, 1995, 574).

2.2.2 Different forms of legitimacy

The literature on organizational legitimacy furthermore discerns between different types of legitimacy. Weber (1958) originally built a threefold categorization of legitimacy, based on the acknowledgment that legitimacy can rest on different but intertwined bases. According to this widely recognized categorization, 'claims to legitimacy' can be based on rational-legal, traditional and charismatic grounds (Suddaby et al., 2017). These typologies have subsequently laid the foundation of other work that has redefined and reworked the categorizations. Suchman's (1995) categorization of three different bases of legitimacy is arguably the most influential in organizational studies (Suddaby et al., 2017). Suchman (1995) states that organizational legitimacy can rest on pragmatic, moral, and cognitive bases. Pragmatic legitimacy rests on calculations involving self-interest from the organization's most immediate stakeholders (Suchman, 1995). Suchman (1995) describes it in its simplest form as: *"... a sort of exchange legitimacy - support for an organizational policy based on that policy's expected value to a particular set of constituents"* (578). Stakeholders thus ascribe legitimacy to an organization if they believe that they will benefit from their actions in some way.

Moral legitimacy is, unlike pragmatic legitimacy, 'sociotropic', it: *"reflects a pro-social logic that differs fundamentally from narrow self-interest."* (Suchman, 1995, 579). It consequently rests on judgments about whether the organizational actions promote social welfare and therefore is 'the right thing to do' (Suchman, 1995). It reflects a positive normative evaluation of the organization and its activities as defined by the socially constructed value systems of the audience (Suchman, 1995). Suchman (1995) argues that this type of legitimacy is

a result of *"explicit public discussions"*, where organizations must partake in these discussions to gain it (Suchman, 1995, 585). Lastly, cognitive legitimacy is based on cognition rather than interest or evaluation. This legitimacy assumes more passive support for an organization as opposed to more active support and affirmative backing. Suchman (1995) describes this as: *"... mere acceptance of the organization as necessary or inevitable based on some taken-for-granted cultural account"* (582). Cognitive legitimacy therefore mainly operates on a subconscious level, making it hard to manage and manipulate for organizations (Suchman, 1995).

While Suchman's (1995) typology for legitimacy is relevant to this work, it constitutes a study of legitimacy as a static state, focusing on properties and established senses of legitimacy (Vaara & Monin, 2010; Suddaby et al., 2017). This work, however, adopts a processual view of legitimacy, enabling the study of the different practices that construct and maintain legitimacy (Suddaby et al., 2017). The next section will, thus, elaborate on the literature studying legitimacy in dynamic contexts.

2.2.3 A dynamic view of legitimacy

The stream of research, adopting a processual perspective of legitimacy, sees legitimacy as a continuous process of negotiation rather than an outcome (Vaara & Monin, 2010; Suddaby et al., 2017). This process of legitimacy is described as *legitimation* or *legitimizing* (Suddaby et al., 2017). Legitimation is, thus, seen as a process where social actors interact and influence one another to ultimately create a sense of legitimacy or illegitimacy (Suddaby et al., 2017). Vaara and Monin (2010) define legitimation as: *"... the creation of a sense of positive, beneficial, ethical, understandable, necessary, or otherwise acceptable action in a specific setting"* (6; van Dijk, 1998; van Leeuwen & Wodak, 1999). On the other hand, delegitimation means *"... establishing a sense of negative, morally reprehensible, or otherwise unacceptable action or overall state of affairs*." (Vaara & Monin, 2010, 6; van Dijk, 1998; van Leeuwen & Wodak, 1999). Delegitimation may therefore be resistance to the legitimation of certain choices and actions in controversies. This understanding of legitimation as a process of interaction between different social actors, negotiating what is desirable in a certain setting, is consequently important for this study as it can be used to explain how social actors legitimize themselves

during controversies. In particular, this thesis adopts a discursive perspective on legitimation. Thus, making research that focuses on the discursive construction of legitimacy especially relevant to this work.

Researchers within philosophy, sociology, social psychology, and communications theory have in recent developments emphasized the pervasiveness and importance of language in social science (Alvesson & Karreman, 2000). Social and organizational research has begun to understand language and language use as important phenomena of research. The realization of the importance of language has arguably led to an increased interest in discourses, constituting a part of a general turn in social science (Alvesson & Karreman, 2000). This literature has studied how a fundamental part of legitimacy develops through rhetoric (Patriotta et al, 2011; Joutsenvirta, 2011), frames (Buschman & Oels, 2019; Geels & Verhess, 2011), narratives (Vaara & Tienari, 2011; Jenkins, 2004; Gössling, 2013) and discourse (Vaara et al., 2004; 2006; Vaara & Tienari, 2011 Vaara & Monin, 2010). Discursive approaches to legitimation contribute to a better understanding of the complex and subtle meaning-making processes through which organizations and organizational decisions are legitimized and the importance of the context in which norms and logic should resonate (Vaara et al., 2006). Vaara and Monin (2010) describe how this shift in attention allows analysis of the actual process of legitimacy as *"... the discursive sensemaking processes through which legitimacy is established"* (5).

Empirical research on discursive legitimation is consequently relevant to this work. Especially interesting is Maguire and Hardy's (2009) analysis of the discursive dynamics influencing the delegitimation of a top-selling insecticide called DDT. The authors focus on the micro-level dynamics of individual texts and the power they have to initiate environmental conversations where actors translate the problematizations proposed (Maguire & Hardy, 2009). The authors specifically focus on how outsider driven deinstitutionalization can contribute to the radical change needed to address pressing problems, such as climate change, that contemporary society is facing. This insight is particularly relevant to this work, as it contributes to an understanding of how existing unsustainable, or "brown", practices are discursively delegitimized in the transition to an "ecologically sustainable economy" (Maguire & Hardy, 2009). Maguire and Hardy (2009) argue that through a discursive perspective, analysis of the

production, distribution, and consumption of texts provides insights into how discourses evolve and contribute to change in society (Maguire & Hardy, 2009).

Other researchers have analyzed the role of discourses in organizational change and strategies. Vaara et al. (2004) analyze the discursive elements of strategy talk to establish a better understanding of the multiple micro-processes and practices that constitute strategies. The authors argue that discovering the discursive roots and linkages in strategy talk enables an understanding of cultural, historical, and ideological elements involved. These in turn contribute to an understanding of why certain strategic ideas gain legitimacy and others do not in certain contexts (Vaara et al., 2004). Vaara and Tienari (2011) focus their analysis on the use of narratives as a significant discursive resource when they analyze organizational change, using the case of merging MNEs. The authors identify three main antenarrative constructions of identities and interests. These are mobilized in organizational storytelling to either resist or legitimize change (Vaara & Tienari, 2011).

Especially important to this thesis is the authors that have discussed discursive legitimacy strategies. When studied from a critical perspective, legitimation noticeably involves struggles for power and status between social actors (Vaara & Monin, 2010; Vaara et al., 2006; van Leeuwen & Wodak, 1999). A crucial part of (de)legitimation processes is consequently the *"...more or less conscious discursive strategizing"* of different social actors (Vaara & Monin, 2010, 6). Vaara and Tienari (2002) draw on CDA to analyze the justification, legitimization, and naturalization processes of the media coverage of historically significant mergers and acquisitions. The authors identify four legitimation discourses: rationalistic, cultural, societal, and individualistic. Vaara and Tienari (2002) elaborate on how these discourses *"... offered different means for the justification of the merger or acquisition deals and the legitimation of managerial action."* (295). The authors furthermore found that rationalistic discourses were predominantly used in the cases, justifying business maneuvers and managerial action and decisions as "the only way" (Vaara & Tienari, 2002).

Vaara et al. (2006) examine the discursive legitimation strategies utilized in the media's portrait of a global industrial restructuring of a pulp and paper sector merger. They build an empirically grounded model of discourse legitimacy strategies of industrial restructuring based

on Van Leeuwen's framework. This model, which this work draws on, reveals five strategies that are used more or less intentionally by journalists to legitimize the merger: normalization, authorization, rationalization, moralization, and narrativization (Vaara et al., 2006). Vaara and Monin (2010) furthermore build on Van Leeuwen's framework in their critical study of discourse legitimacy strategies. More specifically, the authors focus on the discursive strategies used to gain and resist legitimacy as an inherent part of recurring events in changing organizations. The authors consequently build a theoretical model to uncover the relationship between legitimation and organizational action - a so-called "recursive" view (Vaara & Monin, 2010). Their analysis highlights the positive mobilizing effects of discourses and also the constraint that discourse can have on organizational action. These insights in turn provide a new explanation as to why mergers fail, especially related to unrealistic and even illusionary ideas about the benefits of a merger, to the detriment of integration (Vaara & Monin, 2010).

Vaara and Tienari (2008) argue that analysis of especially the political aspects of discursive legitimacy strategies for MNEs' controversial action is lacking. The authors consequently analyze MNEs' discursive legitimation of controversial actions, which is especially relevant to this work. To this end, the authors adopt a CDA perspective which enables an analysis of the micro-level processes of these discursive legitimation strategies (Vaara & Tienari, 2008). They analyze media text that through subtle strategies created a specific legitimacy of a controversial decision to shut down a profitable production unit. The discursive legitimation struggles of this decision ultimately contributed to a redefinition of the social responsibility of MNEs, as this controversial decision was not something that was considered possible prior (Vaara & Tienari, 2008).

2.2.4 Legitimation struggles literature

The literature on legitimation struggles has mainly assumed two perspectives: organization centered literature and controversy centered literature. The prior mainly focuses on how organizational legitimacy is shaped by societal expectations in the organizational setting. Controversy centered literature, on the other hand, concerns the way different actors in

controversies struggle to legitimize their own positions and jointly compete to (de)legitimize organizational action in controversies. These two bodies of literature are elaborated below.

Table 1: Synthesis of legitimation struggles literature

Approach to legitimacy/legitimation	Topic description	Exemplary authors
Organization centered literature - Increased scrutiny makes legitimacy more complex - How illegitimacy based on socially constructed perceptions in surroundings make industries controversial	- Controversial industries are scrutinized due to moral, social, or environmental harm - SLO as a necessary condition for companies in extractive industries to operate successfully - CSR and CRD initiatives are imperative in the mining industry	Reast et al., (2013) Jenkins (2004); Matejek and Gössling (2013); Du & Vieira (2012); Kemp and Owen (2013); Laskovic (2016); Demuijnk & Fasterling (2016); Boutilier and Thomson (2011); Passetti & Rinaldi (2020)
Controversy centered literature - Diverse actors compete to (de)legitimize contested corporate projects through 'discursive struggles' - How talk / justifications / ideologies mobilize (il)legitimate discourses - How moral values (de)legitimize actors interests and discourses shape moral legitimacy	- Focus on how different actors shape (de)legitimacy in controversies - How actors justify themselves through talk - Analyzing conflicting relations between multiple actors - Governments' role in creating 'double standards' and contributing to controversies	Mutti et al. (2012); Reed (2002); Novek and Kampen (1992); Patriotta et al. (2011); Gond et al. (2016); Joutsenvirta (2011); Joutsenvirta & Vaara (2009; 2015); Livesey (2001)

2.2.4.1 Organization centered literature

Legitimacy and legitimation are key issues in organizational action (Vaara et al., 2006) and even more imperative and complex for those operating in controversial industries (Reast et al., 2013) and those involved in controversial projects (Vaara & Tienari, 2008). Firms can be considered controversial if their products, services, and practices breach social expectations and stakeholder interests. This could be through morally corrupt or unethical behaviors and socially or environmentally irresponsible practices (Du & Vieira, 2012). Firms are consequently seen as

controversial when they are perceived as illegitimate, based on the socially constructed perceptions of its surroundings. Indeed, the mining industry is a controversial industry, as it undoubtedly is associated with considerable economic, social, and environmental impacts, such as irreversible environmental degradation and human rights violations (Mutti et al., 2012; Sharma & Bhatnagar, 2015). Mining companies are thus strategically and socially interesting objects of study in relation to legitimacy, as they experience higher levels of scrutiny, making legitimation more complex (Reast et al., 2013).

As a response to the social risks and legitimacy issues within extractive industries, the term 'social license to operate' (SLO) has developed to become a necessary condition for the industry to successfully operate (Maffat & Zang, 2014; Laskovic, 2016; Gehman et al., 2017). SLO generally refers to: *"... the ongoing acceptance and approval of a mining development by local community members and other stakeholders that can affect its profitability."* (Moffat & Zhang, 2014, 61). Across the literature on SLO key elements such as approval and acceptance are frequently identified, which arise based on the organization's ability to build legitimacy, credibility, and trust with stakeholders (Laskovic, 2016; Boutilier & Thomson, 2011; Gehman et al., 2017). Gaining and maintaining SLO is thus dependent on the efforts of the company seeking the license and the 'social licensor' who has the power to reject or grant it (Demuijnk & Fasterling, 2016). Extractive companies must consequently, as a response to the negative impacts of their operations, adhere to a norm of minimizing the costs and maximizing the benefits for society to obtain ongoing acceptance of their mining developments (Laskovic, 2016).

More and more literature is furthermore focusing on the importance of corporate social responsibility (CSR) as a strategic means to counter the increased scrutiny, negative social perceptions, and distrust in organizations belonging to controversial industries (Du & Vieira, 2012). These CSR activities are arguably more complex and contested due to the notoriety of such organizations (Reast et al., 2013; Du & Vieira, 2012). CSR strategies within the mining industry furthermore tend to focus on community initiatives such as community relations and development (CRD) functions, as impacts of mining operations are felt the most locally (Kemp & Owen, 2013; Sharma & Bhatnagar, 2014). CRD typically operationalizes sustainable development (SD) and CSR policies through strategies of engagement: mechanisms of

engagement and management of key stakeholder groups. These strategies include communication, negotiation, conflict resolution, and development programming (Owen & Kemp, 2013). Boiral et al. (2019) write:

"Involving stakeholders in Corporate Social Responsibility (CSR) […] is increasingly considered to be essential to identify and implement relevant sustainability initiatives. Such involvement tends to better align corporate sustainability with the expectations of stakeholders and to enhance legitimacy of organizations or the social acceptability of controversial projects. In sectors that face strong institutional pressures and that may have significant environmental impacts - including the extractive industry - community engagement has become a basic requirement to gain social license to operate ..." (701).

Extractive industries, such as the mining industry, are thus seeing an increase in pro-social industry discourses of 'social license', 'benefit sharing', 'community participation', and 'partnerships for development' (Kemp & Owen, 2013). Some literature finds that companies are successful in implementing such discourse. Rajak (2011), for example, conducted a study on CSR initiatives of the global mining company Anglo American. She argues: *"... the discourse of CSR has served to authenticate and extend corporate authority, elevating corporate status as both architects and agents of development"* (Kemp & Owen, 2013, 524). The effectiveness of CSR initiatives has however also been questioned because of discrepancies between the stated intentions of the companies and their actual behaviors and impacts (Jenkins, 2008). While mining companies have 'remodeled' themselves into good corporate citizens, there is little evidence of the results (Sharma & Bhatnagar, 2014; Jenkins, 2008). Mining companies are criticized for taking a pragmatic approach to 'selling' their CSR strategies to their stakeholders in their corporate reporting. Their discursive CSR strategies are thus accused of 'greenwashing' their actual efforts (Kemp & Owen, 2013).

Du and Vieira (2012) for example analyze the pursuit of legitimacy through CSR strategies in oil companies. The authors find that oil companies overly emphasize the business case of CSR, which hinders them in getting the maximum positive outcome of such activities, like legitimacy. Rather, it negatively affects stakeholders' perceptions of the companies and exacerbates the credibility issues that the organizations experience (Du & Vieira, 2012). This work emphasizes the institutional logic by arguing that the companies will be tolerated in society

if they adapt to the cultural norms of the legitimacy-ascribing environment they operate in. Du and Vieira (2012) argue that companies can benefit from using moral reasoning as a retreat strategy as they argue that proactively engaging in two-way communication and constructive dialogues with stakeholders will help them overcome their controversial reputation (Du & Vieira, 2012).

Multiple research also emphasizes the importance of voluntary initiatives in the mining industry, as a response to external pressure and scrutiny over the industry's negative social and environmental externalities (Dashwood, 2014). These initiatives are means to gain SLO and improve legitimacy and reputation (Schiavi & Solomon, 2006; Dashwood, 2014; Sethi & Emelianova, 2006; Jenkins, 2004). Jenkins (2004) examines the language and constructs used in social and environmental reports in the mining industry to frame its responsibility and role in potential conflicts. The author argues that mining companies engage in these disclosure mechanisms to show that they live up to concerns of the local communities, or at least what they perceive to be the concerns, to gain legitimacy (Jenkins, 2004). The author implicitly argues that the companies engage in strategic manipulation strategies, as she states that choosing to engage in community strategies is not based on moral considerations, rather they are a strategic response to the social challenges that the companies face in their external environment, such as community conflicts and the requirement for legitimacy (Jenkins, 2004). Jenkins argues:

"The report then is a tool by which a company can construct its own 'social imagery', the company identity, how it perceives the community and its relationship with it and how it responds to legitimacy threats. Narratives may contribute to the building of a company' reputation, firms may use reporting as a form of impression management to influence their reputation and effectively handle legitimacy threats" (Jenkins, 2004, 28).

Jenkins (2004) finds that mining companies use excuses, justifications, and analogies as narratives and symbolic techniques to respond to legitimacy threats and reconcile conflicts. The most commonly employed technique is excuses, which are used to shift away the attention from the company and the real problem by diverting the blame to external and uncontrollable externalities (Jenkins, 2004). Jenkins (2004) furthermore argues that the mining companies employ sustainable development discourses and narratives as common expressions for their company motives. By using analogies within sustainable development, such as 'mutuality' and

'togetherness', the companies use rhetoric that is commonly accepted and thus likely to gain support (Jenkins, 2004). The community strategies are however built on neo-liberalist mining rationale and construct an understanding of communities with the company as a central aspect, rather than aiming to understand their complex realities. Jenkins (2004) maintains that this must be appreciated in order to have meaningful impacts, beyond their rhetoric, and avoid future conflicts. The author consequently argues that more work needs to analyze whether the community strategies implemented by mining companies actually deliver socially responsible results (Jenkins, 2004).

Matejek and Gössling's (2013) narrative analysis of BP corporate legitimacy is especially relevant to this work. The authors examine the process of how BP was building, losing and repairing environmental legitimacy, seen as a part of moral legitimacy, surrounding the crisis they experienced concerning the Deepwater Horizon catastrophe in 2010 (Matejek & Gössling, 2013). The company experienced a massive environmental fallout and severe loss of legitimacy after an explosion occurred on the Deepwater Horizon oil platform.

The authors discuss the associated corporate legitimacy crisis through an analysis of the use of green narratives, understood as: *"... the plots in which a company structures environmental issues to communicate them, are a decisive aspect of symbolic representations in this context."* (Matejek & Gössling, 2013, 572). BP was subsequent to the catastrophe regarded as using these green narratives for a symbolic sake without changing their operations accordingly and actually engaging in substantive greening of the company. As such, the authors argue that BP experienced 'green lashing' as they in this legitimacy crisis went from being widely accepted to dismissed as corporate greenwashing (Matejek & Gössling, 2013). The authors thus demonstrate the power of language - the narrative - to achieve, lose, and rebuild legitimacy.

Passetti and Rinaldi (2020) draw on Boltanski and Thévenot's (2006) economies of worth framework to analyze the justification, critique, and establishment of moral legitimacy in controversies related to water sustainability. More specifically, the authors explore how managers, through the use of accounting, combine different moral principles to establish legitimacy of practices related to water sustainability. They uncover four micro-processes utilized for justification and critique - naturalization, enlisting, summoning, and sensegiving,

which illustrate the different processes of moral legitimation, employed by managers (Passetti & Rinaldi, 2020). The authors argue that legitimacy functions in a continuum that is established by managers and negotiated through market, industrial, civil, and green moral principles through the use of accounting (Passetti & Rinaldi, 2020).

The work on legitimacy management in controversial industries shows that organizations that contribute to the well-being of society are rewarded and those that violate societal norms lose legitimacy. This highlights that controversial industries face the problem of moral legitimacy, as seen in the work of Matejek and Gössling (2013). However, this literature assumes the perspective of organizations and studies stakeholders as actors that question and judge controversial industries. These societal expectations are seen as an output of a specific organizational setting, taking for granted the process in which these expectations are shaped by different stakeholders. Therefore, the literature is not able to explain these processual dynamics in which stakeholders concretely challenge the legitimacy of controversial industries. Moreover, it is unable to provide an understanding of how these stakeholders in turn are challenged on their moral legitimacy and actively engage in controversies to overcome this questioning. Therefore, the next section will address these limitations in the literature by focusing on the controversies as the unit of analysis and the legitimacy dynamics within these episodes.

2.2.4.2 Controversy centered literature

During the last years, a group of authors has shifted the unit of analysis from the industry or firm as the principal subject to controversies. Suchman (1995) describes controversies as "episodes" or "issues" where multiple actors struggle for moral legitimacy. Within this literature, authors are interested in analyzing the conflicting relations between multiple actors (social, Government, industrial) and how they interact in order to legitimize their positions and interests in the controversy (Gond et al., 2016). Scherer et al. (2013) describe how stakeholder groups attempt to shape moral legitimacy in sustainability controversies *"... to reach a consensus (or at least an informed compromise) and ultimately a new match between organizational practices and societal expectations that will (re)establish legitimacy"* (264). This literature thus overcomes the shortcomings of the literature on legitimacy in controversial industries, as it uncovers the

dynamics and process of struggle that shape expectations to organizations in which actors promote and legitimize their own interests.

Mutti et al. (2012) present a framework used for conceptual and practical guidance for conflict-resolution oriented CSR policies by drawing on principles in stakeholder theory. Thereby, they analyze two controversial mining projects in Argentina that several social groups oppose due to environmental, ethical, and economic concerns. The authors find that during these conflicts, the companies strategically interact and arrange their relationships with stakeholders, who are not perceived as equally relevant, in ways to support their projects (Mutti et al., 2012). Researchers have also emphasized the importance of governments in these controversies. In fact, governments may even contribute to controversies around industries (Reed, 2002). Reed (2002) argues that when certain policies, such as privatization and deregulation, are implemented in developing countries, it encourages MNEs from developed countries to move their operations to these areas, which consequently incites an emergence of extractive industries. The authors point out a "double-standard", as firms within these industries are simultaneously prosecuted by the country of origin and supported to operate in developing countries (Reed, 2002).

Novek and Kampen (1992) furthermore emphasize the central role of governments in controversies. The authors analyze an environmental controversy concerning the proposed pulp and paper projects. They find that governments are in a contradictory position in these episodes because they promote economic development and simultaneously function as environmental regulators (Novek & Kampen, 1992). Hodge and Coronado (2006) highlight that discourses utilized in legitimacy strategies and struggles are dependent on the context. The authors analyze the Mexican Government's Plan-Puebla-Panama, which is a policy document concerning the southeast region of Mexico. They find that the discourses that the Government used for economic reform were comprised of a 'complex' of global capital and nationalist discourses and ideologies. These were utilized to legitimize the Government's plans to open the Mexican market to foreign-based MNEs. While many of the discourses that the Government used were contradictory, they were nevertheless all used in this policy document to legitimize the reform (Hodge & Coronado, 2006).

Researchers have also analyzed legitimacy struggles in controversies by building on Boltanski and Thévenot's (2006) economies of worth to uncover the justifications that stakeholders use in attempts to legitimize themselves. Patriotta et al. (2011) examine the justifications that different stakeholder groups draw upon to legitimize their own positions in a controversy concerning a nuclear accident. By examining the public debate on the legitimacy of nuclear power, the authors propose a process of institutional repair, which explains the structural constraints and the role of agents when different stakeholders struggle to legitimize themselves in controversies. This model enhances understandings of institutional legitimacy maintenance as it:

"... proposes a view of legitimacy maintenance as a controversy-based process progressing through stakeholders' justifications vis-à-vis a public audience; it demonstrates the role of meta-level 'orders of worth' as multiple modalities for agreement which shape stakeholders' public justifications during controversies; and it highlights the capacities that stakeholders deploy in developing robust justifications out of a plurality of forms of agreement." (Patriotta et al., 2011, 1804).

Gond et al. (2016) analyze how a de facto moratorium on shale gas exploration emerged in Quebec despite the encouraging power position initially enjoyed by the oil and gas industry, fracking being widely adopted in North America, and support from the provincial Government. The authors analyze this unexpected turn of events by drawing on the modes of justification and forms of power that different stakeholders from Government, civil society, and industry mobilized in order to affect the moral legitimacy during a controversy concerning shale gas exploration (Gond et al., 2016). They develop an integrative justification-power framework that encompasses the different facets of power and the multiple moral foundations that the actors rely on to elaborate their legitimacy during the controversy and ultimately affect the outcome (Gond et al., 2016). The authors consequently provide an understanding of how different actors' interactions of power and justifications shaped the controversy and the moral legitimation of a new technology (Gond et al., 2016). This is especially relevant to this work, as this is closely intertwined with the integration of new technologies within sustainability transitions.

Literature has furthermore focused on how rhetorical activity in conflicts in the firm-NGO interface (re)define the boundaries of socially acceptable corporate behavior

(Joutsenvirta, 2011). In a longitudinal discursive study, Joutsenvirta (2011) analyzes the discursive legitimation struggles between StoraEnso, a Finnish forest industry company, and Greenpeace during 1985-2001. The author focuses on how discursive practices constitute a means for the firm and NGO to attempt to de(legitimize) contested issues and seek to persuade other actors and negotiate new meanings of corporate responsibilities (Joutsenvirta, 2011). Joutsenvirta (2011) finds a combination of rational and moral struggles is central in legitimation work, which conclusively acted as means to (re)define CSR and its boundaries at a specific setting and given point in time (Joutsenvirta, 2011). Ultimately, the success of the parties to assure the wider public was not dependent on their rhetorical skills but on how their arguments resonated with the ever-changing moral values of the wider society (Joutsenvirta, 2011).

Joutsenvirta and Vaara (2009) apply CDA to study a conflict concerning a Finnish pulp mill in Uruguay. The authors focus on "talk", which is used by social actors to establish or de-establish legitimacy for socially contested corporate undertakings. To this end, they ask the following research question: *"Through which discursive strategies do various actors construct a sense of (il)legitimacy in sociopolitical conflicts involving firms?"* (Joutsenvirta & Vaara, 2009, 86). They derive three discursive struggles through which proponents and opponents attempt to (de)legitimize the contested project: legalistic argumentation, truth fights, and political battles. From a CDA perspective, the authors infer that the social actors engaged in ideological work when struggling to (de)legitimize the contested project and reconstructing the roles and responsibilities of corporations in the global economy (Joutsenvirta & Vaara, 2009).

In later work, Joutsenvirta and Vaara furthermore examine discursive legitimation in the same controversial projects, to contribute to a better understanding of how CSR involved discourse-ideological struggles (Joutsenvirta & Vaara, 2015). From their analysis, they develop a framework of four (de)legitimation discourses: technocratic, societal, national-political, and global-capitalist. Through analysis on country level, the authors argue these discourses and their different ideological underpinnings can be used to both legitimize and delegitimize the project depending on the national context (Joutsenvirta & Vaara, 2015).

Livesey's (2001) work on eco-identities as discursive struggles, is especially relevant to this work. The author analyses two environmental disputes between Royal Dutch/Shell Group

(Shell) and its critics. The first conflict concerns the company's plans to dispose of the Brent Spar - a gigantic oil storage and loading platform in the deep sea of the North Atlantic. The second dispute was caused by Shell's failure to publicly take a stance against the Nigerian Government, their local business partner, who executed nine environmentalists (Livesey, 2001). Livesey (2001) analyzes how these incidents caused critics, such as Greenpeace and Amnesty International, and Shell to publicly engage in "language games" or discursive struggles over environmental and human rights concerns.

Livesey (2001) finds that the NGOs and other stakeholders drew on different discourses than Shell, ultimately disrupting the company's institutionalized ways of seeing and acting. Shell consequently engaged in a corporate culture change - moving from discourses of economic development to a tentative adaptation of sustainable development discourses, in attempts to bridge the clash of contending discourses (Livesey, 2001). This can ultimately be explained by the "social dramas" and the collapse of Shell's corporate image causing institutional legitimacy issues, which lead the company to engage in eco-discourse as an instrument of discursive struggle (Livesey, 2001). Livesey (2001) writes: *"I argue that such local conflicts over meaning-making around the natural environment must be understood in terms of discursive struggle at the sociopolitical level where they both reflect and influence the dynamics of cultural and institutional change."* (58).

This paper is therefore especially relevant for this work as it concerns discursive struggles for legitimacy in an environmental controversy, caused by controversial action and projects by an extractive company. This case is furthermore a good example of how legal license to operate is no longer sufficient - Shell did nothing "wrong" in the sense that they were doing "business as usual" that had formerly been accepted (Livesey, 2001). This emphasizes the discursive nature of the conflict and thus the importance of defending their image and gaining SLO and legitimacy by negotiating via "language games" with their critics.

3. Conceptual framework

This chapter presents the conceptual framework of critical discourse analysis and the analytical model developed for this thesis.

3.1 Critical discourse analysis

Discourse analysis is a broad field of a collection of related approaches, which can be studied from different theoretical and methodological approaches: anthropology, linguistics, literary studies, sociology, cognitive and social psychology, communication studies, and political sciences (Van Dijk, 2011; Genus, 2016). This work draws on a branch of discourse analysis, called critical discourse analysis (CDA). This approach focuses on the role of language in socially constructing power relations, reproduction of dominations, and social order (Fairclough, 1997, 2003; Vaara & Monin, 2017; Vaara & Tienari, 2008; Vaara et al, 2006). Wodak (2011) describes CDA in the following way:

"CDA might be defined as fundamentally interested in analysing opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language. In other words, CDA aims to investigate critically social inequality as it is expressed, constituted, legitimized, and so on, by language use (or in discourse)" (5).

As such, the interest in uncovering the discourse that reproduces power inequality in society is arguably what makes this approach critical (Jørgensen & Phillips, 2011). Phrased differently: "*In a sense, CDA attempts to make visible problems that often pass unnoticed"* (Vaara et al., 2006). Ultimately, the aim of this approach is to contribute to social change through equalizing power relations and communication processes in society (Jørgensen & Phillips, 2011). Consequently, CDA does not regard itself as politically neutral, rather it is politically committed to change (Jørgensen & Phillips, 2011). CDA does not only differentiate itself from other approaches to discourse analysis because of its critical stance, the analytical view is also district as it:

"... studies real, and often extended, instances of social interaction which take (partially) linguistic form. The critical approach is distinctive in its view of (a) the relationship between

language and society, and (b) the relationship between analysis and the practices analysed" (Wodak, 1997, 173).

This work generally adopts a CDA perspective for several reasons: Firstly, this approach is problem-oriented, which makes it appropriate for studying issues such as social change. In fact, the notion of 'change' has become inherent in this approach, where Fairclough studies recent concepts such as 'transitions' (Wodak, 2004; Faircough, 2001). Secondly, the critical stance of CDA fits within this study, as CDA scholars aim at understanding controversial societal issues. As such, this focus on contemporary social change and societal issues and associated power dynamics, such as domination and resistance make CDA a suitable tool to analyze controversies within sustainability transitions (Wodak, 2011; Leitch & Palmer, 2010). Thirdly, it provides a way in which to study how actors in controversies legitimize themselves through communication, whilst situating and analyzing this within the social setting. To this end, CDA allows a shift from focusing on established legitimacy to the processes of legitimation through analysis of discursive practices and strategies (Vaara et al., 2006).

While there are multiple traditions within CDA, such as critical linguistics and social semiotics (Vaara et al., 2006), this work draws particularly on Norman Fairclough's (1992) three-dimensional framework and Vaara and colleagues' (2006) framework of discursive legitimation strategies. To facilitate an understanding of these frameworks, key concepts within CDA will be elaborated below.

Table 2: Key concepts in CDA

Concept	Understanding
Discourse	Fairclough and Wodak (1997) present a CDA perspective on discourse: *"CDA sees discourse – language use in speech and writing – as a form of 'social practice'. Describing discourse as social practice implies a dialectical relationship between a particular discursive event and the situation(s), institution(s) and social structure(s), which frame it: The discursive event is shaped by them, but it also shapes them."* (258). Thus, CDA perceives discourse as a complex process, which is inextricably linked to the social context, as such, it is seen as both socially constitutive and socially conditioned (Fairclough & Wodak, 1997).

Ideology	Ideology is a crucial topic within CDA, where discourse is seen as *"doing ideological work"* (Fairclough & Wodak, 1997, 262). Van Dijk (1998) defines ideologies as: *"the foundation of the social beliefs shared by a social group ... those general and abstract social beliefs, shared by a group, that control or organize the more specific knowledge and opinions (attitudes) of a group"* (49). Furthermore, Fairclough sees ideologies as: *"meaning in the service of power"* (Fairclough, 1995, 14)
Hegemony	Hegemony concerns: *"... power that is achieved through constructing alliances and integrating classes and groups through consent…"* (Blommaert & Bulcaen, 2000, 449) Hegemony is thus related to dominance but also constitutes a process of negotiation which ultimately leads to a consensus of meaning. Competing views in turn encompass resources of resistance for actors that challenge the dominant meanings (Jørgensen & Phillips, 2011). Consequently, hegemony is never stable but constantly changing and never complete. Discursive practices consist an aspect of a hegemonic struggle, which ultimately leads to discursive change through reproduction and transformation of the order of discourse (Jørgensen & Phillips, 2011; Fairclough, 1992).
Power	Power is a critical construct within CDA as language does not only reflect social processes but in itself is a means of power and dominance. Van Leeuwen (1993) describes discourse in a dual way. It is *"... the instrument of power"* and the *"instrument of the social construction of reality"* (p. 193). While power is not directly derived from language, it often contributes or is used as a means to challenge or change power distribution (Wodak, 2001). As such, whether language becomes powerful or powerless depends on the ones that use it. A central aim of CDA is consequently to uncover how language functions in exercising power (Wodak, 2004).
Legitimacy	Legitimacy is recognized as: *"...a social act of attributing acceptability to social actors, actions and social relations within the normative order"* (Rojo & Van Dijk, 1997, 560). On the one hand, legitimation thus entails creating a sense of positivity, while delegitimation on the other hand refers to creating a negative picture of specific actions and issues (Vaara & Tienari, 2008; Van Leeuwen & Wodak, 1999). From a CDA perspective: *"... legitimacy means a discursive created sense of acceptance in specific discourses of orders of discourse."* (Vaara et al., 2006, 793). As such: *"... it is the discourse and its characteristics that define what can be considered as legitimate/illegitimate."* (Vaara et al., 2006, 793)

3.2 Fairclough's three-dimensional framework

Norman Fairclough is often regarded as one of the spearheads of the development of CDA. His work *Discourse and Social Change* (1992) is undoubtedly the most elaborate theorizing of CDA, as it constructs a social theory of discourse and provides a theoretical framework for critical discourse analysis of communication in society (Blommaert & Bulcaen, 2000; Jørgensen & Phillips, 2011). Fairclough (1992) builds his framework on three dimensions of discourse: text (micro-level textual elements), discursive practices (the production and interpretation of texts), and social practices (the situational and institutional context) (Vaara et al., 2006; Wodak, 2004; Blommaert & Bulcaen, 2000). These three interrelated dimensions accordingly encompass three complementary levels of analysis to structure discourse analysis.

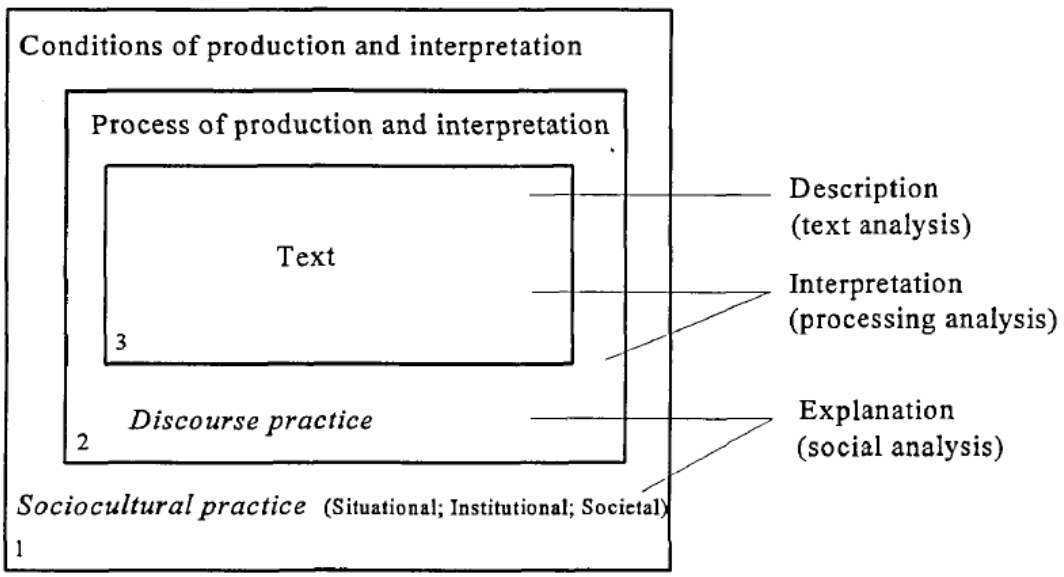
The first dimension, **discourse as text**, is analyzed descriptively as it encompasses the linguistic features and organizations of discourses. This is found in choices and patterns that should be analyzed systematically. This entails analyzing the vocabulary (e.g. wordings and metaphors), grammar (e.g. modality), cohesion (e.g. conjunction), and text structure (e.g. episoding) (Blommaert & Bulcaen, 2000).

The second dimension of the theoretical framework is approaching **discourse as a discursive practice.** Fairclough describes this level of analysis in the following way: *"... discourse practice straddles the division between society and culture on the one hand, and discourse, language and text on the other"* (1995, 60). This *"... involves processes of text production, distribution, and consumption, [with] the nature of these processes [varying] between different types of discourse according to social factors"* (Fairclough, 1992, 78). Thus, this level of analysis is interpretative as it links the linguistic features of discourses, such as vocabulary and grammar to the situational context. To this end, attention is paid to aspects that link the text to the context such as speech acts, coherence, and intertextuality (Blommaert & Bulcaen, 2000). Intertextuality or interdiscursivity rests on the assumption that discourses do not stand alone, rather they are interconnected, which is seen in the way that individual texts draw upon, combine and influence other texts and discourses (Genus, 2016). Within this concept, it is important to pay attention to how certain phrases and quotes are selected, changed, and contextualized from within the set of possibilities available (Genus, 2016; Blommaert &

Bulcaen, 2000). As such, this level of analysis focuses on how the author of a text draws on other texts and discourses and how the receiver on the other hand applies discourses to consume and interpret the text (Jørgensen & Phillips, 2011).

The third dimension of the framework is **discourse as social practice** in which the communication belongs (Jørgensen & Phillips, 2011). This furthermore entails the ideological effects and hegemony processes, which discourse constitute a part (Blommaert & Bulcaen, 2000). This level of analysis is explanatory, as it concerns the relationship between the discursive processes and the social processes. As such, it situates and analyzes the discourses within the wider social practice. Incorporating social practice into the analysis is arguably beneficial as it considers how these are shaped by taken-for-granted social structures and power relations (Jørgensen & Phillips, 2011). This level of analysis furthermore concerns hegemonic change, which can be identified in discursive change through intertextuality. This uncovers: *"... the emergence of new orders of discourse, struggle over normativity, attempts at control, and resistance against regimes of power"* (Blommaert & Bulcaen, 2000, 449).

Figure 3: Fairclough's three-dimensional framework



3.3 The discursive construction of legitimacy

When analyzing legitimation from a discursive perspective, the starting point must inevitably be that legitimacy is created in relation to certain discourses (Vaara & Tienari, 2008). Discourses provide 'frames' through which people make and give sense to certain issues (Vaara & Tienari, 2008). These frames, however, constitute significant implications for actors. On the one hand, they constrain sense-making and enable only certain subject positions to voice particular issues and concerns. On the other hand, they also allow actors to purposefully position themselves in relation to a specific discourse to further their own goal (Vaara & Tienari, 2008). Furthermore, as discourses are *"doing ideological work"* (Fairclough & Wodak, 1997, 262) and thus ideologically laden, legitimation consequently involves the reproduction of ideologies (Vaara & Tienari, 2008). Van Dijk (1998) in fact states: "*... legitimation is one of the main social functions of ideologies"* (255). As such, legitimacy struggles within sustainability transitions controversies can also be seen as ideological struggles. Discourses and their characteristics, thus, determine whether something is considered legitimate or illegitimate (Vaara et al., 2006).

Legitimation is carried out as a continuous communicative act that not only constitutes defensive justification but also involves proactive efforts. It is, however, less significant in *"... normal courses of events, in routines, and when no challenges to institutional power or authority are imminent"* and more prominent in crisis situations (van Dijk, 1998, 257). To facilitate an understanding of legitimation in such situations, 'legitimation strategies' have been conceptualized, which are: *"... specific ways of mobilizing specific discursive resources to create a sense of legitimacy or illegitimacy"* (Vaara & Tienari, 2008, 987). To this end, certain things can be portrayed as *"... positive, beneficial, ethical, understandable, necessary, or otherwise acceptable. In contrast, other things are constructed as negative, harmful, intolerable, or, for example, morally reprehensible"* (Vaara et al., 2006, 793-794) Below, the comprehensive framework of discursive legitimacy strategies within CDA, which is work draws on, is presented.

3.4 Vaara and colleagues' framework for discursive legitimation strategies

While there are several ways to distinguish and categorize different discursive processes of legitimation, van Leeuwen & Wodak (1999) and van Leeuwen (2008) provide one of the most

developed theoretical frameworks (Vaara et al., 2006; Vaara & Laine, 2006). Vaara and colleagues (2006) have subsequently developed an empirically grounded model of discursive legitimation strategies, building on this recognized framework. Their work provides an understanding of micro-level discursive strategies, utilized when contemporary organizational phenomena are legitimized (Vaara et al., 2006). These micro-level discourse strategies furthermore foster an understanding of the complexities, ambiguities, and contradictions in legitimation that remain unnoticed from more traditional perspectives.

These legitimation strategies should not necessarily be seen as intentional or conscious choices but rather different discourses or discursive practices that more often than not are employed half-consciously by the authors or speakers to establish legitimacy (Vaara et al., 2006; Vaara & Laine, 2006). According to the model, five general types of legitimation strategies can be distinguished: authorization, rationalization, moralization, normalization, and narrativization (Vaara et al., 2006). These major categories can be used separately or in combination with each other. They are used both to legitimize but also to critique - delegitimize (van Leeuwen, 2008). On the one hand, they can occupy large parts of texts while not directly referring to what is being legitimized. On the other hand, they can be used sparsely across detailed accounts of what they legitimize (van Leeuwen, 2008). As these strategies are usually intertwined, multiple legitimations are often most efficient (Vaara & Tienari, 2008)

Firstly, Vaara and colleagues (2006) adopt van Leeuwen's (2008) categorization of **authorization.** This is legitimation by reference to the authority of tradition, custom, law, or any person who possesses institutional authority (van Leeuwen, 2008). This category of legitimation answers the 'why' questions, either spoken or unspoken - "Why should we do this" or "Why should we do it in this way?" with "because so-and-so says so" (van Leeuwen, 2008, 106). This category encompasses six sub-categories according to who can exercise this authority and how. These are personal authority, expert authority, role model authority, impersonal authority, the authority of tradition, and the authority of conformity (van Leeuwen, 2008).

Secondly, **moralization** of legitimacy implies a reference to specific values and value systems without further justification (van Leeuwen, 2008). Delegitimation through the use of moralization, for example, entails questioning the moral basis of an action or statement based on

a certain discourse. This major category of legitimation furthermore has a number of sub-categories: evaluation, abstraction, abstraction, and analogies such as positive and negative comparisons (van Leeuwen, 2008).

Thirdly, **rationalization** refers to the utility of institutionalized social action and furthermore the knowledge which society has provided them with cognitive validity. This could for example be reference to financial calculations and language such as increased organizational effectiveness and performance or effectiveness of Government and their policies (Vaara & Tienari, 2008; Vaara & Laine, 2006). Vaara and colleagues (2006) specifically focus on instrumental rationality, which refers to the benefits, purposes, functions, and outcomes of certain actions. Rationalization, thus, rests on certain moral bases that rarely are explicitly referred to. It is consequently questionable whether rationalization and moralization are two separate legitimation categories (Vaara et al., 2006).

Fourthly, **normalization** is legitimation through rendering something normal or natural by exemplarity. (Vaara et al., 2006). Here, this exemplarity can entail reference to 'retrospective' (similar cases, events, or practices in the past) or 'prospective' (expected new cases, events, or practices) to establish the issue at hand as (il)legitimate (Vaara et al., 2006).

Lastly, **narrativization** builds on van Leeuwen's category of mythopoesis, in which legitimation is communicated through narratives (van Leeuwen & Wodak, 1999; Vaara et al., 2006; Vaara & Laine, 2006). Here, the focus is on how telling a story can establish something as acceptable, appropriate, or preferential behavior (Vaara et al., 2006). This means storytelling with reference to how the issues relate to the past or the future (Vaara & Tienari, 2008). Here, Vaara and colleagues especially focus on 'dramatic narrativizations' in which different actors are portrayed as winners, losers, heroes, or adversaries. Van Leeuwen (2008) furthermore distinguishes between two main tales - moral and cautionary:

"In moral tales, protagonists are rewarded for engaging in legitimate social practices or restoring the legitimate order." […] "Cautionary tales, on the other hand, convey what will happen if you do not conform to the norms of social practices. Their protagonists engage in deviant activities that lead to unhappy endings." (117-118).

Table 3: Vaara and colleagues' (2006) Model of Discursive Strategies Used to Legitimate Contemporary Organizational Phenomena

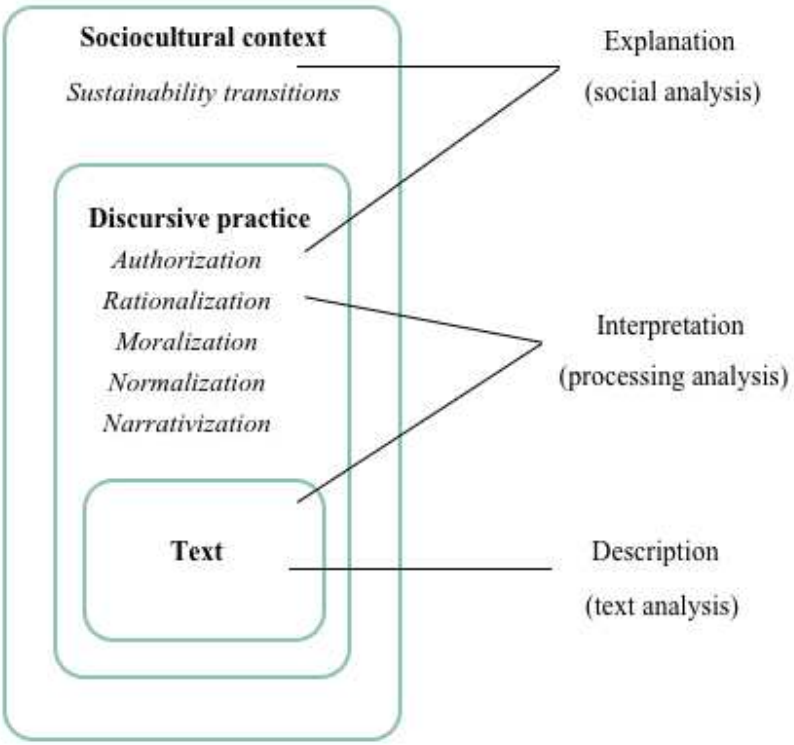
	Individual texts	Intertextual totality	Power implications
Normalization	Exemplifies 'normal' function or behavior	Establishes recurring examples	Institutionalization of specific examples
Authorization	Authorizes claims	Establishes recurring authorizations and authorities	Institutionalization of specific authorities and marginalization of others
Rationalization	Provides the rationale	Establishes recurring rationalities	Institutionalization of specific rationalities
Moralization	Provides the moral and ideological basis	Establishes recurring moralities and ideologies	Institutionalization of specific moralities and ideologies
Narrativization	Provides a narrative structure to concreticize and dramatize	Establishes recurring narrative and drama structures	Institutionalization of specific kinds of narratives and dramas

Source: (Vaara et al., 2006, 804)

3.5 Analytical model

This work combines Vaara and colleagues' framework for discursive legitimation strategies and Fairclough's three-dimensional framework. Fairclough's three-dimensional framework enables an examination of the legitimation strategies that do not solely consider the rhetorical legitimation acts but also considers the social settings in which they are proposed. This in turn relates to the socio-technical regimes they are introduced in and the landscape that affects these (Geels, 2010; Geels, 2011). Actors can for example refer to technologies or sustainability problems from these when trying to establish (de)legitimacy. The three-dimensional framework enables an examination of the more subtle ways these discursive practices, linking the text and social settings, are used to establish or resist legitimacy.

Figure 4: Analytical model



Adapted from Fairclough (1992) & Vaara et al. (2006)

4. Methodology

4.1 Research strategy

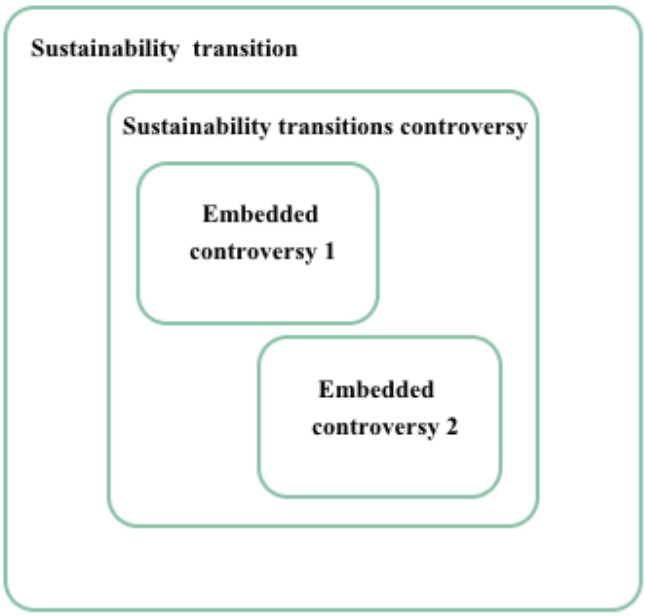
Drawing from earlier research on discursive legitimation (Joutsenvirta & Vaara, 2009; Vaara & Tienari, 2008; Vaara et al., 2006; Joutsenvirta, 2011), this study adopts CDA as the method of inquiry within qualitative research methods. This research consequently aims at critically analyzing how different actors discursively legitimize themselves during sustainability transitions controversies. It, thus, poses the following research question: *How do actors discursively struggle to legitimize themselves throughout sustainability transitions controversies?* The analysis builds on a multimethod approach, which is a recommended strategy in case studies designed to uncover actual processes and events (Langley, 1999; Vaara & Monin, 2010). More specifically, this study utilizes an abductive and longitudinal embedded single-case study design (Yin, 1994), relying on complementary methods of analysis and sources of primary and secondary data (Langley 1999; Vaara & Monin, 2010).

Hence, this research adopts an **embedded single-case research design** (Yin, 1994) to study the ongoing controversy in Quebec concerning new mining developments for battery metals. This case was chosen due to its rather "unique" and "extreme" nature (Yin, 1994) seen in a number of characteristics. The public discussions and conflicts over the development of these mines indeed demonstrate the divisive opinions over what constitutes environmental protection and just transitions, thus constituting this sustainability transitions controversy. It also presents an interesting paradox within the transition to a low carbon future, where mining is at the forefront of many solutions to the "climate emergency" that the world is facing: it is essential to the production of renewable energy technologies, while also emitting significant amounts of global emissions; it is often an important employer for local communities, while conflict over the management of land and natural resources commonly occurs; it can have substantial negative impacts on local biodiversity, but it can also be a key partner in protecting species and ecosystems (Church, 2020). Hence, mining simultaneously contributes to solutions in the transition towards sustainability while causing related problems, especially locally.

Furthermore, what makes the case of Quebec unique and interesting is the free-entry tenure system under the 1912 Mining Act. In Canada, the surface and subsurface rights to land are separated, which means that The Crown (the federal and/or provincial Government) holds the subsurface rights, even when the surface rights are held privately. Quebec's Government, therefore, has the power to grant mining permits to companies or individuals in areas where the surface rights are privately owned. The Mining Act, thus, recognizes surface rights holders' interests as secondary to the subsurface rights (Kuyek, 2019). Mining companies, therefore, potentially have the right to exploit the underground in areas where surface rights are privately held and occupied by for example residences or recreational properties (Kuyek, 2019). Conflict and public debate is thus likely to occur if the rights for a new mining project is obtained against the will of the surface land's owner and local authorities. Indeed, this has consequences in terms of how these actors discursively struggle for legitimacy to further their own positions in these conflicts.

As this research adopts an embedded single-case research design, attention is therefore given to subunits within the case (Yin, 1994). This, thus, provides opportunities for a more extensive analysis and ultimately enhanced insights into the case as a whole (Farquhar, 2012; Yin, 1994). This research design is appropriate for this study, as the rationale for a "unique" study fits with a single-case study, as opposed to a multi-case design (Yin, 1994). In this research, the subunits of analysis within the case - the controversy, are the 'embedded controversies', which are mining projects for battery metals in Quebec. More specifically, two mining projects were sampled - the Matawinie project and the Authier lithium project.

Figure 5: An embedded single-case design



Author's own elaboration

4.1.2 Sampling of embedded subunits

These embedded subunits are selected through a purposive sampling process (Yin, 1994). More specifically, the two subunits were intentionally selected through purposive sampling, as certain variations and specifications for the embedded controversies were desired (Gill, 2020). The subunits indeed had to meet certain criteria for them to fit within the case. This is the location in Quebec, the production of battery metals, and the stated intention of supplying EV battery production in Quebec. Furthermore, there had to be enough accessible data about the contesting of the two projects. As such, this enabled the selection of the two projects, out of 14 mining projects for battery metals under development in the province. Many projects were evidently not selected due to their early phases in the development of the projects, which meant that they were not yet informing and consulting the local populations.

The two subunits were also selected due to a number of variations between them: One project is owned by a multinational enterprise (MNE) while the other is owned by a local Quebecoise company. One project is located in a mining region in Quebec where exploration projects have been developed in the past, while the other project is located in an area where there have been no prior projects. The two projects furthermore produce different battery metals and are at different stages of their exploration - one has undergone the public hearings in the BAPE process whereas the other is about to.

Table 4: Criteria and variations of subunits

The Matawinie Project	The Authier Project
Owned by Nouveau Monde Graphite - Quebecoise company	Owned by Sayona Quebec - A subsidiary of the Australian MNE Sayona Mining
Wants to supply the EV industry - production of graphite	Wants to supply the EV industry - production of lithium
Location in Quebec - not in a mining region	Location in Quebec - in a mining region
At the exploration stage of the mining sequence - has undergone the public hearings in the BAPE process	At the exploration stage of the mining sequence - has not undergone the public hearings in the BAPE process

4.1.3 Sampling of key informants

To sample key informants for this study, snowball sampling was firstly used to get access to potential participants through informants (Gill, 2020). Subsequently, however, this was replaced by purposive sampling, as the goal of this study is to analyze the different perspectives within this sustainability transitions controversy. As such, key informants were intentionally selected based on their knowledge about the subject and/or their various positions and involvements in the two controversies (Gill, 2020). This sampling process, however, was limited due to the COVID-19 situation emerging in the spring of 2020. Firstly, because many possible informants contacted failed to reply or did not follow up on interview requests. The situation

furthermore caused several interviews to be canceled, where only a few were successfully rescheduled to take place through emails, phone, or conference calls. Secondly, because I was unable to do fieldwork, despite being invited by a key informant to come to do observations in the field concerning one of the mining projects. As such, because the restrictions of the COVID-19 did not permit me to take advantage of this opportunity of doing fieldwork and the plans thus failed to be concretized.

4.2 Data Collection

4.2.1 Interviews with key informants

Between March and May 2020, I conducted 6 interviews with key informants belonging to different groups in the controversy. The in-depth interviews were a major source of information on the different informants' subjective perspectives and perceptions. The flexible nature of interviews furthermore allowed for evolving conversation and freedom to prompt for elaborations when something novel and interesting was brought up (Daymon & Holloway, 2012). The first interview took an unstructured and more exploratory form where the interviewee could largely steer the conversation and go in-depth with their own interests and concerns. Subsequently, an interview guide (presented in appendix 1) was constructed for the different groups of actors, which provided consistency and basic guidelines for the data collected. The interview guides covered topics such as the interviewees' knowledge in their field of work, their role, and experiences in the controversy or particular project, their relations with other actors, their opinions on the impacts and opportunities of the developments. The remaining interviews consequently took a semi-structured form, which allowed the interviewees to express their opinions and present their own account of the topic areas (Daymon & Holloway, 2012). While some informants responded electronically per email, the ones that took place in person or via phone or conference calls were electronically recorded and transcribed shortly thereafter.

Table 5: Summary of interviews with key informants

Interviewee	Profile	Stakeholder categorization*	Duration of interview	Location
1	Frontline community member	FCM	1 h 50 min	HEC Montreal
2	Minister of the Environment and the Fight Against Climate Change	GOV	55 min	Saint-Eustache
3	Director of battery supply chain, industrial cluster	IOM	60 min	Montreal
4	Representative of the Quebec Mining Association	IOM	-	Phone & email
5	Ministère de l'Énergie et des Ressources Naturelles	GOV	-	Email
6	Director, multi-stakeholder initiative on responsible mining	NGO	60 min	Zoom conference call

*Abbreviations for stakeholder groups: IND stands for industry representatives. GOV stands for members of the provincial Government or of local governmental bodies, FCM stands for front-line community members, IOM stands for members of industry organizations

4.2.2 Secondary text material

The primary data from the interviews were supplemented by secondary data sources that were all available online and accessed during the spring and summer of 2020. In total, 236 documents of secondary data were collected. This amount is, thus, appropriate to gain a detailed picture of the overall themes and discourses in the controversy, while small enough to allow for a comprehensive study of the texts, essential to CDA (Fairclough, 2003). The written materials include news articles, Government and company communication, reports and articles,

commentaries and opinions, transcriptions from public hearings, and other sources of data not falling into the aforementioned categories. A large part of the written material collected was newspaper articles that were available in electronic format. The controversy and especially the different mining developments received rather large media coverage, especially from local and provincial news outlets such as La Presse, L'Action, and CBC/Radio-Canada. 179 articles were initially collected, searching primarily on Google, GoogleNews and different news outlets search engines for combinations of keywords such as 'Sayona Quebec', 'Nouveau Monde Graphite', 'BAPE', 'public meetings', 'citizens', 'municipality' and 'controversy'. 128 articles were eventually selected, as some articles solely contained irrelevant information for the purpose of this research or simply were redundant with others. The articles were a substantial source of information in this research, furthermore essential as Chouliaraki and Fairclough (1999) elaborates how particularly the language in the mass media can be scrutinized as a site for power and struggles through CDA. Additionally, commentaries, open letters, and opinions were collected from these outlets. Here different actors in the controversy, such as NGO representatives and civil society members elaborated on their opinions and experiences.

Moreover, transcripts from public hearings enabled rich data on the perspectives, opinions, and experiences of different actors impacted or part of a mining development. Additionally, data sources such as Government and company communication as well as reports and articles from organizations were essential as they: *"... are artefacts of social communication created by individuals or organizations for personal or public consumption [...] they also illustrate the processes of how individuals and organizations publicize and justify themselves to those they consider important"* (Daymon & Holloway, 2012, 277). Company communication, thus, was an especially important source of data. This was found in homepage information text, marketing and articles, public interviews, and press releases. Vaara (2015) moreover describes the relevance of these official strategy documents from organizations as they are: *"... crystallizations of strategic thought and often play a crucial role as 'official' strategies legitimating or delegitimating specific actions"* (5).

Table 6: Summary of secondary text material

Origin	Period	Exemplary sources	#	# of pages
Newspaper articles	2016 - 2020	CBC/Radio-Canada, Journal De Montréal, L'Action, La Presse,	128	345
Press releases	2016 - 2020	Nouveau Monde Graphite, Sayona Mining, Coalition Pour Que Le Québec Ait Meilleure Mine!	68	137
Government communication	2012 - 2020	Gouvernement du Québec, Ministère de l'Énergie et des Ressources naturelles	5	153
Public hearings	2020	Bureau d'audiences publiques sur l'environnement Québec	6	920
Interviews/opinions/commentaries	2018 - 2020	Investing News Network, CBC/Radio-Canada, La Presse	10	63
Reports/articles	2018 - 2019	Propulsion Quebec, PwC, Global Business Reports, Canadian Mining Journal	12	151
Other sources of information	2018 - 2020	Investing News Network, NewsWire	7	10
Total			**236**	**1779**

4.3 Data Analysis

This research does, as elaborated in the conceptual framework, draw upon the school of CDA. CDA does not provide one specific theory and neither does it rely on particular methodological characteristics in research (Wodak & Meyer, 2009). Wodak and Meyer (2009) in fact describe CDA as a "heterogeneous school" where *"... studying in CDA is multifarious, derived from quite different theoretical backgrounds, oriented towards different data and methodologies."* (5). The heterogeneity that characterizes CDA both methodologically and theoretically makes it, according to Van Dijk, (1993), *"... at most a shared perspective…"* (131).

This work nonetheless, draws specifically on Norman Fairclough's three-dimensional framework combined with Vaara and colleagues' framework for discursive legitimation

strategies. These, in fact, constitute the theoretical framework for this research, while also informing the methods of analysis. More specifically, the three interrelated dimensions in Fairclough's framework also encompass three complementary levels of analysis: text analysis (description), processing analysis (interpretation), and social analysis (explanation) (Fairclough, 1995). This research follows Janks (1997) interpretations and use of Fairclough's framework, which first and foremost emphasizes that the framework provides multiple points of entry for analysis. Janks (1997) states:

"It does not matter which kind of analysis one begins with, as long as they are all included and are shown to be mutually explanatory. It is in the interconnections that the analyst finds interesting patterns and disjunctions that need to be described, interpreted and explained. " (329).

With this in mind, the analysis was done in an 'abduce' manner, which CDA by its very nature is (Vaara et al., 2006; Vaara, 2015). Wodak (2004) describes this as *"... a constant movement back and forth between theory and empirical data"* (200). This means that the theoretical ideas were built parallel with a progressively targeted empirical analysis in a constant cyclical movement back and forth between theory and empirical material (Wodak, 2004; Vaara, 2015). The analysis largely proceeded in five different overall stages, following, but not constrained by the approach of Vaara (2015). Vaara (2015) suggests the following steps of analysis for CDA: i) definition of research questions that reflect critical orientation; ii) overall analysis of the textual material leading to a selection of 'samples' of texts; iii) close reading of specific texts; iv) elaboration on findings and their generalizability (Vaara, 2015).

This analysis proceeded in five interrelated stages, as elaborated in Figure 6. The first step of analysis commenced with a reflection of the research question of this work: *How do actors discursively struggle to legitimize themselves throughout sustainability transitions controversies?* considering the data set. Subsequently, the second step of the analysis took shape from an overall reading of all the text material. The data was ordered and systematized using the software ATLAS.TI, where specific passages ranging from a few lines to sections were coded and accordingly grouped into different themes and legitimizing discourses. This analysis, thus, provided an understanding of the 'order of discourse' in the texts analyzed, which is a crucial

part of Fairclough's approach to CDA (Fairclough, 2003; Wodak, 2004). As the case, and thus the two subunits is approached as a process, it enables an understanding of how the controversies evolved over time, as it allows to: *"...address questions about how and why things emerge, develop, grow, or terminate over time"* (Langley et al., 2013, 1). While processual data can be analyzed in a number of different ways, this study adopts the **temporal bracketing strategy** (Langley, 1999). This stage of the analysis therefore also allowed for insight into the overall timeline of discussions and events in the two embedded cases. It lastly enabled the identification of the key stakeholders, which were grouped into appropriate categories. The coding of the data was furthermore systematized in such a way that the different stakeholder groups' legitimizing discourses were assigned to them. This provided an overview of the opinions and issues brought up within the different stakeholder groups. During this first part of the analysis, material that was either irrelevant or too redundant was furthermore excluded.

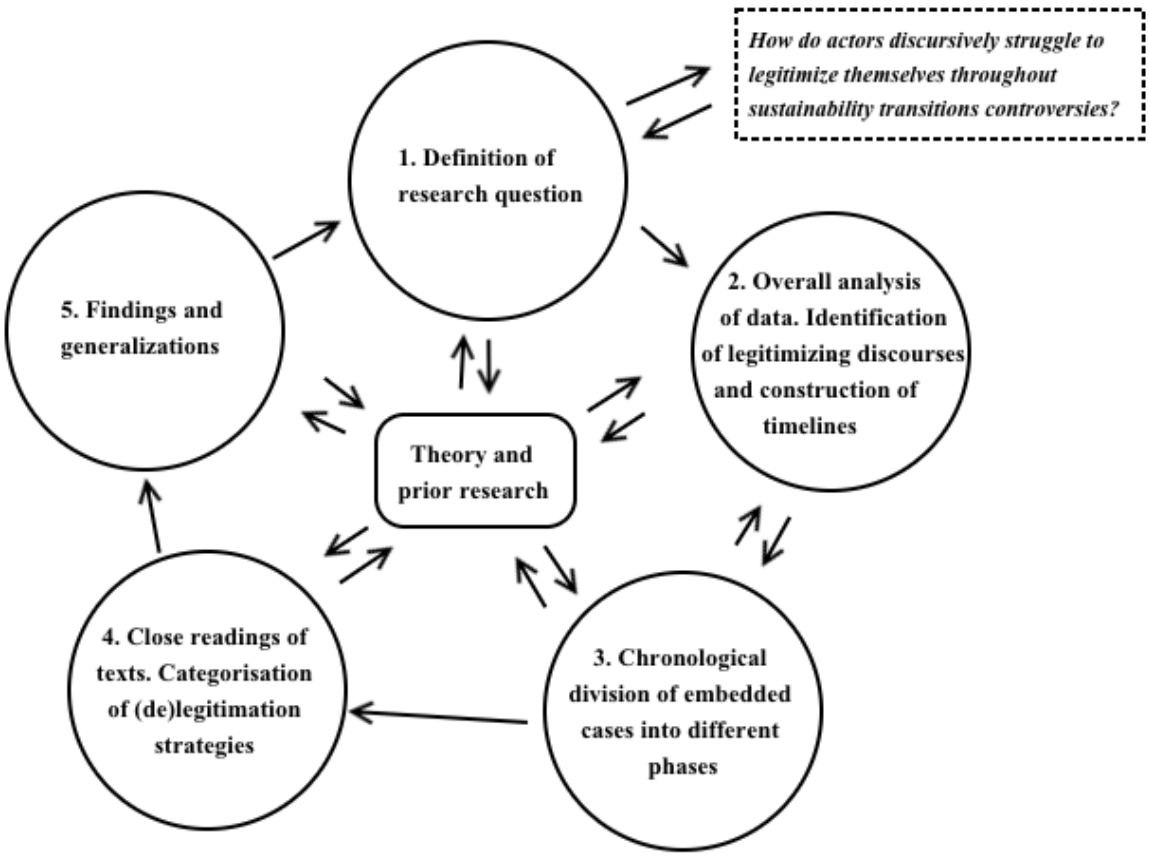
The second step of the analysis was largely interrelated with the third, which consisted of a chronological division of the longitudinal data into successive phases. The bracketing of the two embedded cases was, thus, enabled through analysis and identification of turning points or discontinuities, delimiting the temporal brackets in the two controversies (Langley, 1999; Langley et al., 2013). This bracketing strategy refers to Gidden's (1984) structuration theory, focusing on how individuals' actions are constrained by structures (formal and informal rules and norms) that they through time also can serve to reconstitute (Langley, 1999). This interestingly enabled an examination of how certain actions in one phase affected the context, which in turn affected actions in the subsequent periods (Langley, 1999). The turning points were identified in key events that considerably changed future dynamics in both embedded cases. In the Authier controversy, three turning points and accordingly four phases were identified during the 1,5 years covered. In the Matawinie controversy, two turning points and three phases were determined, covering a total period of 4,5 years.

The fourth step of the analysis subsequently proceeded with a closer reading of the texts, enabling an analysis of the different discursive legitimacy strategies in the two embedded cases. An increasingly targeted textual analysis is, thus, generally recommended in CDA (Wodak, 2004). Thus, an identification of *"...micro-level textual practices and strategies used to*

(re)construct senses of legitimacy/illegitimacy" (Vaara et al., 2006, 791). This step of the analysis and recoding of the data was informed by Vaara and colleagues' (2006) categorization of discursive legitimation strategies: normalization, authorization, rationalization, moralization, and narrativization. As the data was recoded, exemplary textual examples were analyzed further, as recommended in CDA (Fairclough, 2003; Vaara & Monin, 2010). Here, discourse as text, as presented by Fairclough (1992), was for example analyzed through the identification of pronouns such as 'us', 'our', 'their', and 'them' in the different textual examples. Intertextuality was furthermore seen in actors' recurring references to the Government's transportation electrification goals and the Mining Act, amongst others. This phase was, thus, characterized by constant dialogue between the data and theory.

The fifth step, ultimately rounding off the analysis, followed the recommendations of Vaara (2015), by elaborating and placing the key findings within the wider context. As such, by placing these strategies within the larger macro-level to *"...make visible the interconnectedness of things"* (Fairclough, 1995, 747). Thus, constituting the explanation phase in the analysis of Fairclough's model, in which the discursive legitimacy strategies are connected to the discourses in the context of sustainability transitions. This step of the analysis, moving from analysis at the subunit level and returning to the case generally, is furthermore important in embedded single case studies, as this enables a larger holistic analysis of the case (Farquhar, 2012).

Figure 6: Steps of data analysis



Adopted from Vaara (2015)

4.4 Quality criteria

This qualitative research design evidently has inherent limitations. To enhance the trustworthiness of the findings and conclusions of this study, the following measures were therefore taken to establish credibility, transferability, dependability and confirmability (Shenton, 2004).

Credibility

Credibility is central to establish internal validity and trustworthiness of qualitative research (Shenton, 2004). More specifically, it ensures that the study actually measures what is intended, thus, dealing with the question: *"How congruent are the findings with reality?"*

(Shenton, 2004, 64). The following provisions were appropriately taken to improve the credibility of this study:

Data triangulation: The basis of the credibility of research is increased when multiple data sources confirm the same things and evidence is triangulated (Farquhar, 2012; Shenton, 2004). Furthermore *"... triangulation can capture a more complete, holistic and contextual portrayal of the units under study."* (Jick, 1979; 603). This study, thus, uses multiple sources of data to enhance the credibility of the research, notably also an essential tactic and characteristic within case studies (Yin, 1994). This research relies on several data sources: primary data (interviews with key informants) and secondary data (news articles, reports, etc.). The extensive secondary data in this case furthermore helps solve the limitation of access to key informants that arose due to the COVID-19 situation. It provides both extensive and multiple sources of data, for example, more than 900 pages of transcripts from public hearings detailing the statements, questions, and answers from several key actors in the case.

Empirical data: Researchers within CDA have been criticized for self-serving selection of data and lack of rigor in the textual analysis (Vaara, 2015). This research thus addresses the issues of subjectivity through thorough textual evidence. More specifically, it includes substantial amounts of empirical data, which furthermore helps the reader corroborate conceptualizations and thus increase the credibility of the research (Langley, 2009). Multiple supporting quotations were furthermore highlighted in the analysis to bring evidence of the arguments made. As such, presenting the actors own words in direct quotations to furthermore allow the reader to experience their perspectives and experiences more directly. During the coding process, statements were moreover quoted and assigned to the different stakeholder groups that they belonged to avoid bias.

Examining previous research findings: In accordance with the recommendations of Shenton (2004), this research furthermore related emergent findings to an extant body of literature to determine whether they were congruent with insights from these. This strategy was furthermore in alignment with the abductive nature of CDA studies, in which theoretical ideas are continuously built in parallel with a progressively targeted empirical analysis (Wodak, 2004; Vaara, 2015). The discursive legitimation strategies identified in the findings were for example

repeatedly compared to the insights from extant literature utilizing the same framework to ensure congruence.

Frequent debriefing sessions: To enhance the credibility of the study, the researcher is furthermore recommended to engage in frequent discussions about the research with his or her research supervisor to widen their vision, discuss alternative approaches and become aware of potential flaws and personal biases (Shenton, 2004). During the development of this research, I frequently held meetings with my thesis supervisor to discuss and critique my work, evaluate and consider methods, data, and the general course of action of the project. These meetings were invaluable to assure credibility and establish the direction of this research. Combined, all these measures taken ensured credibility for the research design of this study. Thus, establishing trustworthiness of the findings and conclusions and creating congruence between these and the research question of this thesis.

Transferability

Rather than demonstrating that the findings of a qualitative study can be replicated and apply to other situations, the insights and conclusions must be understood within the context of the research (Shenton, 2004). However, providing thick descriptions of the phenomena under study, as well as the context in which it is situated, allows the reader to compare and relate the insights to cases in other contexts (Shenton, 2004). Considering the context is furthermore central to this study, as CDA research has often been criticized for neglecting the context in which discourses and practices occur (Joutsenvirta, 2011; Leitch & Palmer, 2010). It is, however, especially important to consider the context: *"... as meaning of all discourse is situated, language-use gains meaning within the context of its use"* (Joutsenvirta, 2011, 59). This study consequently provides detailed descriptions of the case under scrutiny and the dynamics of the specific context, as part of a larger socio-political sustainability struggle. The political, technical, industrial, and environmental context of this research is, specifically, elaborated in the first part of chapter 5 of this thesis. This, thus, allows the findings of the study to be compared to other similar sustainability transitions controversies.

Dependability

To address the issue of dependability within qualitative research, the processes and methods within the study should be described in detail. This, thus, enables future researchers to repeat the research and furthermore allows the reader to assess whether these measures have been implemented properly (Shenton, 2004). This research consequently provides a thorough description of all the different methods and measures taken for the data collection, including descriptions of semi-structured interviews and presenting the interview guides used. Furthermore, a step-by-step description of the data analysis is provided, allowing scrutiny of the way the methods are implemented and the possibility of repeating the process for future researchers (Shenton, 2004).

Confirmability

Shenton (2004) describes the issue of confirmability for the qualitative researcher as the comparable concern to objectivity. Here, generic strategies may be implemented to ensure that the findings of the research reflect the actual experiences of the actors involved rather than the preferences of the researcher (Shenton, 2004). In this research, triangulation can once more be highlighted as a strategy used to enhance confirmability of this study. This, thus, contributes to validating analytical interpretations within CDA and overcoming the issue of investigator-bias (Hart, 2016; Shenton, 2004). Moreover, the potential effects and shortcomings of the methods chosen for this research have been thoroughly described and an in-depth step-by-step description of the data analysis has been detailed to allow scrutiny of the integrity of the findings presented (Shenton, 2004). The description of the so-called "audit trail" of this research thus enables the reader to trace the course of the research and determine whether the emergent insights and findings may be accepted (Shenton, 2004).

4.5 Ethical considerations

Ethical considerations in this research have been multiple, especially because it involves human subjects. None of the persons interviewed were nonetheless considered as belonging to a vulnerable population and the information collected did not deal with classified issues. The

problem of confidentiality in this research was furthermore reduced as a majority of the data collected originated from public sources (Vaara & Tienari, 2004).

Appropriate ethical considerations were further exercised to protect the participants in this research. All interviewees were informed about the research before being interviewed, as they all received the appropriate consent form describing the nature and topics of the research. They were furthermore informed that participation was completely voluntary and that at any time after their participation the transcript of their interviews could be destroyed at their request if they did not feel comfortable. The identities of all informants were furthermore kept confidential and participants were free to choose the desired level of anonymity on their consent forms. Most informants signed these and were provided a copy that they could keep for future reference, others gave their consent to participate orally.

Lastly, this research project was approved by the Research Ethics Board of HEC Montréal on February 13, 2020, before any primary data was collected. The certification of this approval is presented in appendix 2.

5. Findings

This chapter presents the findings of this study. First, the context of this research is presented, enabling a better understanding of the sustainability transitions controversy in Quebec. More specifically, the political, technical, industrial, and environmental context of the case is elaborated. Then, a within-case analysis is presented, detailing the chronological division of the longitudinal data of the two embedded subunits into successive phases. Subsequently, the progression of the two controversies is retold from a conceptual standpoint, describing the evolution of the different actors' discursive legitimacy strategies throughout the controversies. Lastly, a comparative analysis is proposed, comparing and contrasting the findings from the two controversies.

5.1 Research context

5.1.1 Political context - Electrifying transportation in Quebec

As part of global efforts to address the impacts of climate change, the Government of Quebec released its *2030 Energy Policy* in 2016. To guide the transition towards sustainability in the province, this policy sets up the following four 'strategic thrusts': i) ensure integrated governance of the energy transition; ii) promote the transition to a low-carbon economy; iii) offer consumers a renewed, diversified energy supply, iv) define a new approach to fossil energies (MERN, 2016). As part of these goals, the Government wishes to electrify transportation in the province, seen amongst others in the *Transportation Electrification Action Plan 2015-2020.* This action plan sets up concrete and pragmatic measures to position Quebec as a global leader in transportation electrification and sustainably develop a low-carbon economy. Part of these pragmatic measures is to take advantage of Quebec's 'comparative advantages', described as follows:

"Choosing transportation electrification is a matter of recognizing our assets: availability of renewable energy, an abundance of natural resources (including many of the metals needed to manufacture electric vehicles), internationally recognized research expertise and industrial know-how that are continually developing. Québec's comparative advantages represent strengths that it can count on." (Transports Quebec, 2015, 3)

Amid the COVID19 crisis, Prime Minister Justin Trudeau has furthermore developed a plan to “build back better”, in which “climate action” and “green recovery” will be central. Investments in clean and renewable technologies, such as EVs and battery manufacturing, is according to the Prime Minister essential to realize this plan (Farand, 2020).

5.1.2 Industry context - An industrial cluster for electric transportation

Multiple industrial actors are furthermore working together to promote the electrification of transportation in Quebec. In 2017 a cluster for electric and smart transportation, called Propulsion Quebec, was created to this end. The cluster is a coordinating agent working to mobilize industry players to develop the smart and electric transportation industry, including the battery sector. The organization represents more than 130 member businesses, associations, public and para-public organizations working towards the same goal (Propulsion Quebec, 2019). Member businesses from the industry represent companies from all the different stages of the value chain, including multiple mining companies (Propulsion Quebec, 2018). While the province does not yet mass produce battery metals with the right qualities to be used as battery components, several mining companies are currently working on producing battery-grade processed minerals (Propulsion Quebec, 2019).

5.1.3 Technical context - EVs and rechargeable batteries

As the sales of EVs are continuously growing, they are expected to be equally as affordable as gas-powered cars by 2022 (Church & Crawford, 2018). From 2016 to 2017, global sales of EVs rose by 64 % (Irle, 2020) and estimates predict that the sales will continue to increase (BloombergNEF, 2019). In fact, BloombergNEF (2019) states: *“... there is no sign of slowing down. We expect annual passenger EV sales to rise to 10 million in 2025, 28 million in 2030 and 56 million by 2040.”*. While EVs only make up 0,5 % of the world’s vehicle fleet today, the anticipated 56 million EVs in 2040 will represent over 30 % of the global fleet (BloombergNEF, 2019). In Quebec, EVs accounted for only 1,4 % of the province’s total vehicle fleet in 2018. Given the transportation sector is to reach the goals set by the Government, 40 %

of gasoline-powered vehicles will be replaced with EVs by 2030 and the province will be home to approximately two million EVs (Whitmore & Pineau, 2017).

The massive electrification of transport, combined with the exponential expansion of the car fleet rapidly increases the demand for EV rechargeable batteries as well (Church & Crawford, 2018). Different battery technologies consist of different combinations of metals that all possess different properties such as stability/safety, energy density, lifetime, and material intensity (Azevedo et al., 2018). New technologies are constantly being developed in order to improve these properties, as for example seen in a partnership between Hydro-Québec and Mercedes-Benz AG. Lithium-acid, lead-acid, nickel-based, flow and sodium-based batteries all hold potential for EVs, however, lithium-ion batteries are by multiple sources seen as the most viable option for the near future (Arrobas et al., 2017; Church & Crawford, 2018, Desjardins, 2016). Lithium-ion batteries are used in EVs as well as other energy storage technologies such as solar panels and wind turbines due to their excellent energy-to-weight-ratio (Church & Crawford, 2018; Arrobas et al., 2017).

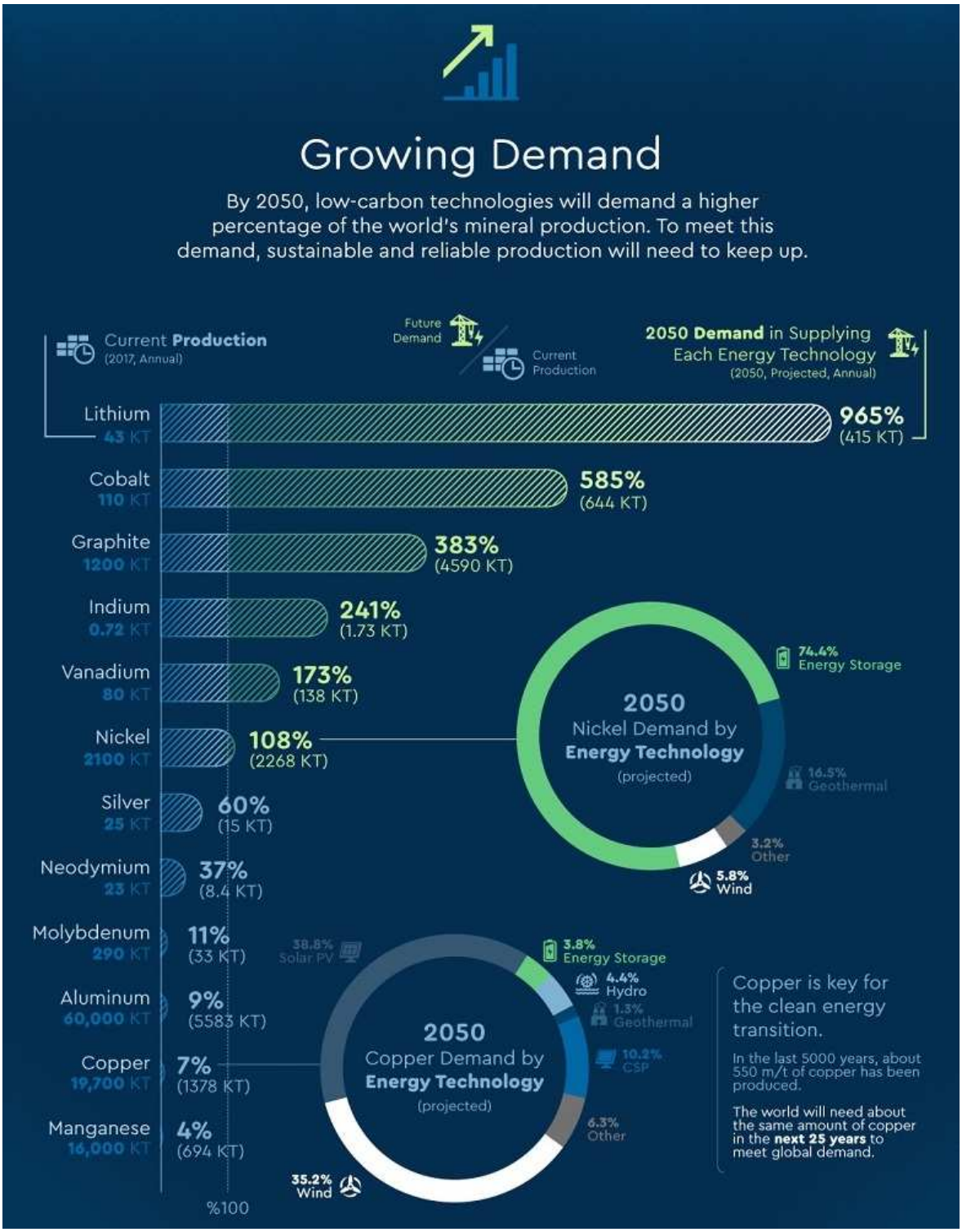
5.1.4 Environmental context - Mineral implications

The increased sales of EVs and accompanying increase in the demand for energy storage technologies, especially lithium-ion batteries, is consequently leading to a surge in the demand for non-renewable resources, so-called battery metals. (LePan, 2019). In fact, when the penetration of the EV market increases by 1 %, the demand for lithium increases by about 70,000 tonnes LCE/year (Desjardins, 2016). Estimates consequently predict that at least one new lithium mine must start operations each year through 2025 to meet the continuously higher demand (Baystreet Staff, 2017). Demand for these battery metals is not only high due to increasing sales of EVs, but the batteries in themselves are also highly mineral intensive. A Tesla Model S for example requires 54 kg of graphite and 63 kg of lithium - this is more than the lithium required for 10,000 cell phones (Desjardins, 2016).

Quebec possesses substantial reserves of several of these minerals, such as graphite, lithium, rare earth elements, niobium, titanium and vanadium, and cobalt and platinum group elements (MERN, 2019). The demand for these battery metals is, thus, expected to rise

substantially. Lithium demand is predicted to grow exponentially by 300 % in 2025 compared to production in 2017. Cobalt is also highly sought after, expected to increase by 60% by 2025, with demand largely driven by the EV market (Church & Wuennenberg, 2019). The figure below, retrieved from the World Bank, depicts the production volume of key energy minerals for clean energy technologies in 2017 and the estimated demand for these in 2050.

Figure 7: Growing demand for energy minerals



Source: (World Bank, 2019)

5.2 Within-case analysis

5.2.1 The Authier project

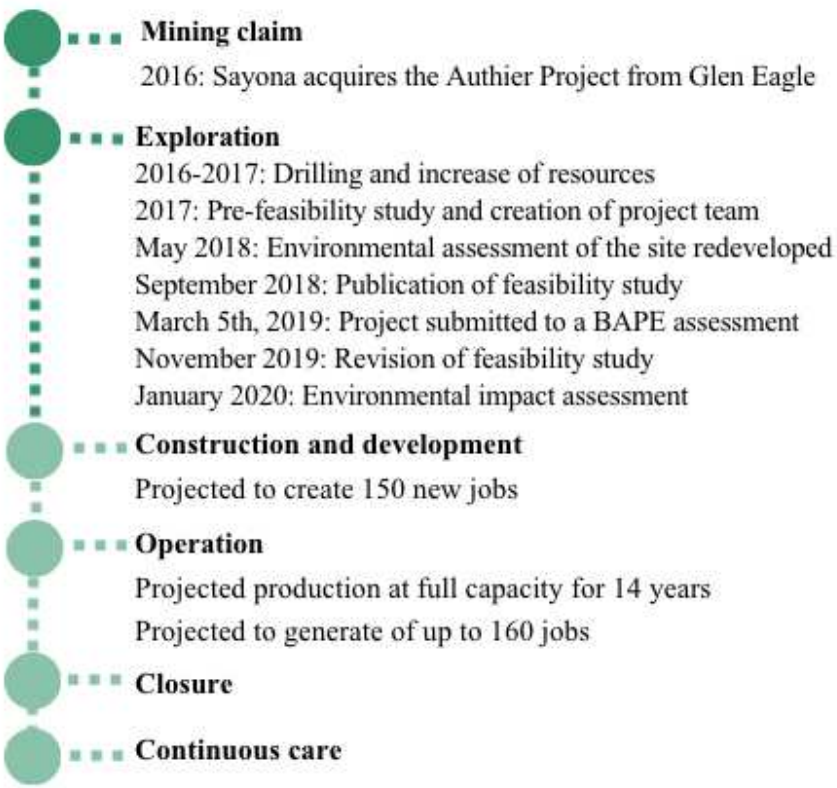
The Authier Project is an open-pit lithium mine[1] fully owned by Sayona Québec, a subsidiary of the Australian mining company Sayona Mining. Sayona Mining specializes in the exploration and development of lithium deposits and is also developing mining projects in Western Australia, where the company headquarters also are located. Sayona Quebec was established in 2016, following Sayona Mining's acquisition of the project from Glen Eagles Resources the same year. The project is situated on the Authier property, located 45 kilometers northwest of Val d'Or, which is approximately 460 kilometers north-east of Montreal. The property consists of 20 mineral claims covering an area of 3,4 by 3,1 kilometers on the territory of the Abitibiwinni First Nation of Pikogan and the Municipality of La Motte. Several drillings of the property have enabled the creation of a three-dimensional map of the ore body, which is found to be 825 meters long, with an average thickness of 25 meters. When in operation, the mine is projected to have a daily production of 2,600 tonnes of ore, amounting to an annual production of 115,000 tonnes of concentrate. Furthermore, Sayona expects that the mine will be in production for 14 years, eventually having a surface mine that is 1000 meters long, 600 meters wide, and 225 meters deep.

At the beginning of 2020, Sayona submitted an environmental impact assessment to the Minister of the Environment and the Fight Against Climate Change. Subsequently, the project will go through the procedures conducted by the BAPE. Here, public hearings will enable citizens and independent experts to express their opinions and inquire about the project. Following the BAPE process, Sayona must receive an authorization[2] from the Minister of the Environment and the Fight Against Climate Change before proceeding with the construction and development of the mine. Alternatively, the Minister can choose to reject the project based on BAPE's analysis of the project. The Authier Project is therefore currently at the *exploration* stage

[1] An open pit mine is a surface mining technique that extracts minerals from an open pit in the ground. Sayona will use conventional methods of extraction such as drilling and blasting. The extracted ore containing lithium will be loaded and transported to a processing plant located on the mine site.
[2] With or without modification and conditions

of the so-called mining sequence, which constitutes the consecutive and extensive phases that any mining project goes through. The mining-sequence is detailed in appendix 3, enabling a more comprehensive understanding of the extent of the mining projects in this case.

Figure 8: Authier Project at the *exploration* stage in the mining sequence

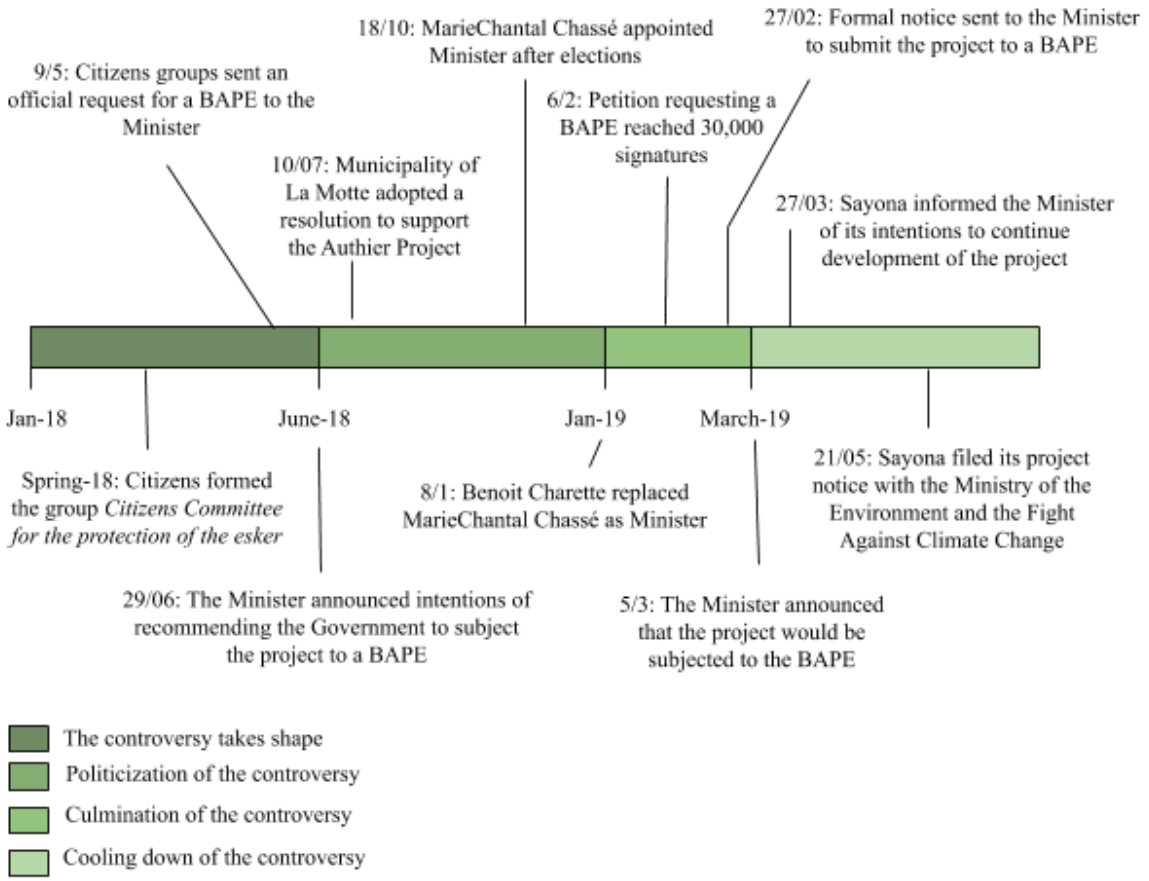


Author's own elaboration

5.2.2 The Authier controversy

This section presents the four successive and adjacent phases identified in the Authier controversy. These were determined through the identification of three 'discontinuities in the temporal flow' of the controversy: the then Minister announcing her intentions of recommending the Government to submit the Authier project to a BAPE assessment, Bernoit Charette taking over the position as Minister and lastly the his announcement that the project will be submitted to a BAPE. The timeline below details the main events and communications in the controversy.

Figure 9: Timeline of events and communication in the Authier controversy - January 2018 - May 2019



Author's own elaboration

5.2.2.1 Phase 1: The controversy takes shape (first half of 2018)

Sayona first introduced the Authier Project to the public at the beginning of 2018, hosting information meetings for the members of the Municipality of La Motte and the Abitibiwinni First Nation in Pikogan. Here, Sayona elaborated how the lithium produced from the mine was intended to supply the lithium-ion battery industry for EVs and that the project was planned to start production as soon as possible, to reach the market faster. To this end, the company had created a "sustainable" mining concept, with a business strategy based on a smaller sized mine,

which would enable the company to avoid the BAPE process[3]. Soon afterward, the elected officials from La Motte joined a liaison committee for the project.

Several local citizens, civil society groups, and environmental NGOs[4], however, were concerned about the new mining project and the environmental impacts it would have on the region. The close proximity of the project to the esker Saint-Mathieu-Berry[5], a geological formation of glacial rocks, especially caused concern amongst these citizens. The esker, often referred to as the 'blue gold' of the region, had been awarded the title 'the best drinking water in the world', supplied drinking water to six local municipalities and natural spring water to the ESKA water company. Sayona responded to these concerns by ensuring citizens that the mine would pose no threat to the esker. The then Director of Sustainable Development for Sayona stated the following: *"We will make a formal commitment, we will never touch the integrity or the quality of the water of the esker"* (Director of Sustainable Development, Radio-Canada, May 2, 2018). Citizens, however, did not trust Sayonas claims, as they were based on the company's own environmental analysis of the project. They consequently wanted an independent analysis of the environmental risks and impacts associated with the project. A citizen explained the following: *"You know that it is a mine, which is close to an esker, a source of pure water which supplies several municipalities. The fact remains that it is a danger and we want these dangers to be studied"* (Citizen, Radio-Canada, June 5, 2018).

These citizens furthermore found it unacceptable that the elected officials had joined the liaison committee for the project, without prior consultation with the public. Rather, they wanted the elected officials to defend the interests of the citizens. Therefore, they requested the Municipality to set up citizens assemblies to discuss the project, without any of the representatives from the mining company being present. In the Spring of 2018, the citizens consequently formed the group *Citizens Committee for the protection of the esker* (CCPE), to protect the esker and monitor the process of the project. The group soon emerged into a social

[3] Section 31,1 in the Environmental Quality Act states that mining projects with a daily extraction or 2,000 tonnes and more must be subjected to public hearings by the BAPE.
[4] Amongst others the CCPE, Le Regroupement Vigilance Mines of Abitibi and Témiscamingue Group (REVIMAT) and Eau Secours
[5] Initially, Sayona stated that the project was within a distance of 500 meters from the esker

movement, counting more than 5,000 members shortly after its creation and continuously gaining support from new members and other civil society groups.

The overall position of the group was not to oppose the project, rather, members wanted more information about the potential risks and impacts of the project. They believed that the BAPE process, which Sayona was adamant not to go through, would inform them about their questions and concerns, especially regarding the environmental risks posed to the esker and the surrounding wetlands and wildlife. A spokesperson for the group explained why a BAPE was more reliable than Sayona's current process: *"There are a lot more responsibilities, a lot more evidence, a lot more studies when you go through a BAPE than when you go through the process they are currently doing"* (Radio-Canada, May 2, 2018).

A decision to submit the project to the BAPE when the projected production falls beneath the threshold of 2,000 tonnes daily, however, would ultimately be at the discretion of the Minister of the Environment and the Fight Against Climate Change. On May 9th, the CCPE, *Le Regroupement Vigilance Mines of Abitibi and Témiscamingue Group* (REVIMAT), E*au Secours* and the *Coalition Pour le Québec ait meilleure mine!*[6] therefore collectively sent an official request to the then Minister of the Environment and Fight Against Climate Change. In this, they requested her to use her discretionary power to submit the Authier Project to an environmental assessment, including the process of the BAPE. The request read the following: *"We are asking the Minister to use her new powers because this project could have a major impact on the region's water and environment. We believe that the issues related to this project are such that they require a break in order to rigorously study the potential impacts"* (Press release, May 9, 2018).

The groups, thus, argued that issues related to the project required additional and independent analysis, especially due to concerns about the environmental impacts that the proposed mine would have on the esker. Subsequently, several other environmental organizations joined this request, wanting an independent analysis of the environmental impacts of the project. The Minister for the Abitibi-Témiscamingue region furthermore reiterated his support for the BAPE, stating the following about Sayona and the project:

[6] A civil society mining watchdog

"I think they wanted to make a shortcut, I would say. It was not a good idea. I think that the Minister of the Environment will have no choice but to meet the requirement for a BAPE. I think that for the good of the population, having an analysis, a field consultation, within the structured framework of an Office of Public Hearings on the Environment would be the best decision in this case." (Minister for the Abitibi-Témiscamingue region, iHeartradio, May 18, 2018).

This request gained traction, as the leader of *du Parti vert du Canada* also declared her support for the project to undergo a BAPE. Throughout the summer, citizens along with politicians and environmental NGOs consistently asked for the project to be submitted to a BAPE assessment during public meetings for the project. The elected officials from the local municipalities, however, did not want to take a side in this discussion.

5.2.2.2 Phase 2: Politicization of the controversy (second half of 2018)

On June 29, 2018, the then Minister of the Environment and Fight Against Climate Change announced her intentions of recommending the Government to submit the Authier Project to an impact assessment and review procedure on the environment, including an analysis by the BAPE. The Minister argued that an environmental assessment would be an opportunity for the citizens to voice their concerns and for the company to demonstrate the social acceptability of the project. In a press release, the Minister wrote that this recommendation was based on the legitimate concerns of the citizens, stating the following:

"I have heard the population and I share their concerns. This is why I invite the proponent of the Authier mine project to seriously consider the interesting avenue of the environmental impact assessment and review procedure and to voluntarily submit to a public BAPE hearing. Otherwise, I intend to recommend to the government that the project be subject to it." (Press release, June 29, 2018).

However, soon after the Minister's announcement, the municipal council of La Motte unanimously adopted a resolution to support the Authier Project. The acting Mayor stated: *"Given that [the mining representatives] were meeting with the minister today, it was support that was given to give them the opportunity to do [the mining project], without the BAPE"* (Acting Mayor of La Motte, Radio-Canada, Juli 10, 2018). Sayona did not, despite these developments, make any public statements about whether they would submit the project to the BAPE. At the beginning of August, the Minister of Environment and Fight Against Climate Change consequently reiterated her intention to submit the project to a BAPE assessment if the

company would not do so themselves. Soon thereafter, the Mayor of Amos confirmed that the city of Amos also supported that the project should be submitted to a BAPE, due to lack of social acceptability for the project.

At the end of August, the Municipality of La Motte hosted public meetings concerning the Authier Project. While neighboring municipalities, mining, and Government representatives were invited to speak, the CCPE organized a protest outside the location of the meeting. The purpose of this protest was to denounce the Municipality's decision to support the project without prior consultation with the local population. Citizens demonstrating on the sidelines of the public meeting were joined by candidates of three political parties in the running for Abitibi-Ouest. Subsequently, on the 10th of September, the Mayor of La Motte resigned his position in the municipal council due to exhaustion caused by the Authier Project. Furthermore, this decision came after he revealed that the council had declared its official support for the project without his knowledge of the decision.

On September 24, Sayona released a "positive" feasibility study for the Authier Project, stating that it: *"... shows potential for profitable and sustainable new lithium mine, delivering jobs, investment and other economic benefits to the local community"* (Press release, September 2, 2018). The social movement contesting the project, however, argued that Sayona deliberately delayed the process of filing the certificate applications, necessary for the Minister to initiate the process of the BAPE, hoping that a possible new Minister after the election in October would have a different opinion than the Minister at the time. Sayona, however, rejected this, stating the feasibility study was necessary before they could apply for the certificate of authorization. At a conference for the Canadian Institute of Mines, Metallurgy, and Petroleum (CIM) in October, a newly appointed Vice President of Sayona defended the company's decision not to submit the project to the BAPE and stated that he remained hopeful that the new Legault Government would support this decision. Furthermore, he argued that the citizens' mobilization in no way could be used to determine the social acceptability for the project, which according to the groups in favor of the BAPE was "surprising" and "disappointing".

During the election, the newly elected Premier of Quebec and leader of the Coalition Avenir Québec (CAQ), François Legault, advocated that the environmental assessments of

mining projects should be done quickly to improve the competitive position of Quebec. At the same time, he argued that this could be done without compromising the environmental protection of new mining projects, reiterating the importance of social acceptability. This is seen in the following statement: *"When I meet with the mining companies, it's unanimous. If we ask them for a change that we can make to help them, it is to reduce authorization times, in particular for the environment...."* (Radio-Canada, September 24, 2018).

The newly elected Minister of the Environment and the Fight against Climate Change MarieChantal Chassé, thus, had to take a stand on this with regards to the Authier Project. She decided not to commit to subject the project to the BAPE, rather, she argued that she wanted to take some time to make her decision. This hesitation, however, was not understandable to members from three opposing parties in the National Assembly. They urged her to: *"... to state clearly and quickly that it will be submitted to the BAPE for review, as we had already planned."* (Radio-Canada, November 20, 2018). Furthermore, they criticized the new Government for not following through on their promises of environmental protection. Finally, the Minister did not take a position regarding the Authier project before she was replaced less than three months after she was appointed.

5.2.2.3 Phase 3: Culmination of the controversy (January - March 2019)

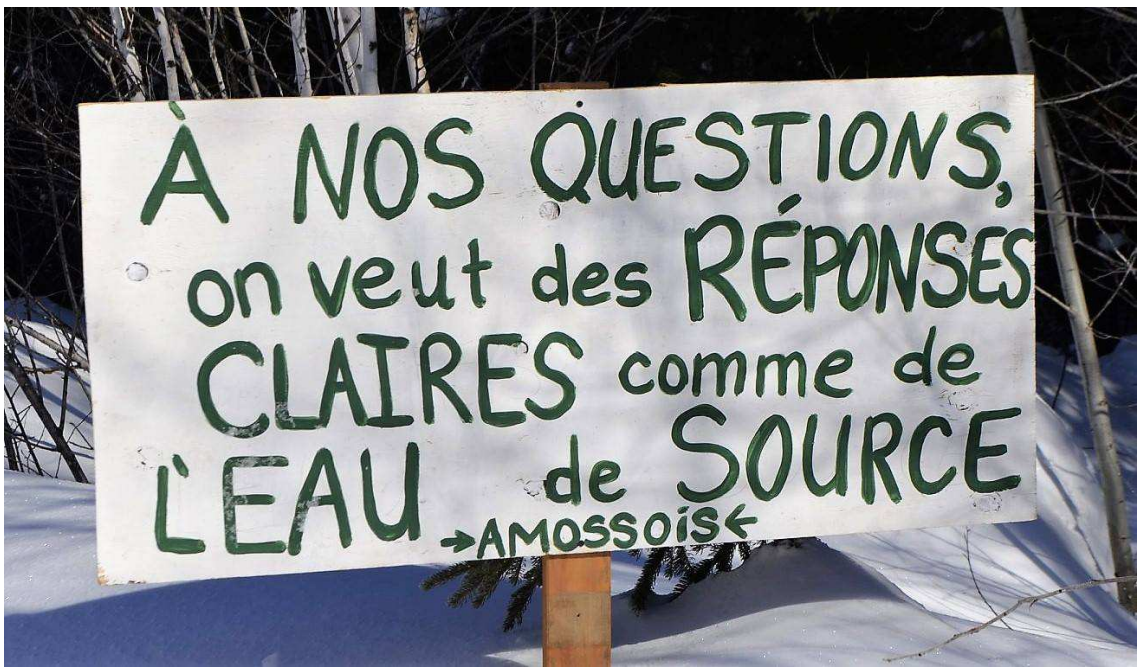
At the beginning of 2019, Benoit Charette took over the position as Minister for the Environment and the Fight Against Climate Change, making him the third Minister to oversee the Authier Project. Citizens groups calling for the project to be submitted to the BAPE, however, believed that the appointment of the new minister would have limited impact. The President of the organization *Action Boréale* stated the following: *"No matter which minister is there, it will depend on the will of the Government. There will have to be a demonstration to prove that they believe in it's [the environment's] importance ...."* (Radio-Canada, January 9, 2019). Only days after the appointment of the new Minister, several deputies of Abitibi-Témiscamingue reiterated that they wanted to see the project be subjected to a BAPE assessment, hoping the Minister would adopt the same position.

Almost a year after the citizens' mobilization commenced, it was still gaining traction and the groups part of the movement eventually represented more than 20,000 people. A petition created by the CCPE, calling for an evaluation of the BAPE, furthermore collected more than 30,000 signatures. Several artists from the province also joined the social movement, which created an increased awareness of the case in the region. At a citizen's gathering in Amos in January, citizens met to discuss further mobilization for their cause. Many citizens present at the meeting expressed their dissatisfaction with the attitude of the company and the elected officials' way of handling the situation, calling it undemocratic.

Shortly afterward, representatives from local, regional, and national organizations met with the Minister, urging him to intervene in the case. They argued that there was a strong "regional consensus" that the project should be submitted to the BAPE and that it was time for the Minister to listen to the population. A spokesperson for the environmental NGO *Coalition Québec meilleure mine!* stated the following: *"For more than a year, the mining industry has been making multiple mistakes and doing everything to harm the social, environmental and economic acceptability of its project. It is time for the Minister of the Environment to ring the end of the recess, to call this mining to order, and to demonstrate that he is listening to the population"* (Press release, January 24, 2019)

Members of the social movement furthermore made concerted outings, amongst others the CCPE arranged protests, demanding a BAPE on grounds of social acceptability. On February 20th, a large group of citizens, artists, and representatives from various organizations and groups within the social movement, furthermore joined the three opposing parties[7] in the National Assembly, at a press conference. Here, they collectively urged the Minister of the Environment and the Fight Against Climate Change to exercise his discretionary power and submit the Authier Project to a BAPE assessment.

[7] The Liberal Party, Parti Québécois and Québec Solidaire



Picture 1 & 2: Protest on February 10, 2019. Source: (CCPE)

Despite the “regional consensus” that the Authier Project should be submitted to the BAPE, the Minister of the Economy in Quebec, Pierre Fitzgibbon, suggested that the Government would attempt to authorize the project, without going through the process of the BAPE. Promoting the development of the lithium-ion battery sector in the province, he acknowledged the company’s inclination not to have the project delayed by the BAPE hearings, stating the following to the Cabinet: *"We will try to see if we can not use the rules to go without BAPE, in the context, it can be done [...] we have an esker, we have mine, and our experts tell us that there are no environmental issues."* (February 20, 2019).

According to a spokesperson for the CCPE, this statement prompted the organization to act, stating the forthcoming: *"For all practical purposes, that means that it is the economy that will govern the future of this file, unless the Minister [of the Environment] hears the population"* (Spokesperson for CCPE, Radio-Canada, February 27, 2019). The CCPE ultimately sent a formal notice to the Minister of the Environment and the Fight against Climate Change to apply the law and require a BAPE for the Sayona Project. This notice was sent by the lawyer of a spokesperson of the CCPE, based on an analysis of documents submitted by the company as part of its authorization, which was obtained through an access to information request. These revealed that during the 7th year of operations, the project would exceed the maximum daily extraction threshold of 2,000 tonnes. Hence, the CCPE argued that the recent revelations would oblige the Minister to submit the project to the BAPE. The spokesperson for the CCPE argued that the formal notice would “... *force him to respect the law*”, furthermore elaborating that “*If it turns out that the Minister of the Environment does not hear the people who brought him to power, well we, we feel that we have all the rights to initiate proceedings so that he can hear from the courts."* (Interview, Radio Canada, February 27, 2019).

Subsequently, however, the Minister announced that the project would be subjected to the BAPE, stating that analysis conducted by his officials confirmed that the project would have maximum daily extraction above the threshold requiring a BAPE. In the press release announcing the decision, the Minister stated the following regarding the decision:

“The environmental impact assessment and review procedure, which notably includes a stage of public information and consultation led by the BAPE, will allow the population to express

themselves and keep themselves informed. Ultimately, the promoter will be able to present the environmental protection measures likely to ensure the acceptability of his project both socially and environmentally and economically." (Press release, Office of the Minister of the Environment and the Fight, against Climate Change, March 5, 2019)

5.2.2.4 Phase 4: Cooling down of the controversy (March-May 2019)

Only one day after the Minister's announcement, Radio-Canada published an investigative article in which they revealed that an advisor and representative of Sayona, a former President of the BAPE and chairman of the board of directors of NMG had met with municipal and provincial elected official various times without being properly registered in the Lobbyist Registry. The article, titled *"Environment: The ex-President of BAPE advises the mining company that wanted to escape the BAPE"* read the following:

"Pierre Renaud is perfectly familiar with Quebec environmental laws and the rules governing the BAPE, since he chaired it from 2007 to 2012. He therefore had the perfect profile when he was appointed, in the fall of 2018, to advise the mining company seeking to obtain ministerial authorization without having to undergo the BAPE examination [...]Pierre Renaud is registered in the lobbyist's register, but not on behalf of the mining company Sayona, which would violate the law, according to experts consulted by Radio-Canada. A violation of this law exposes its author to a fine of $ 500 to $ 25,000 as well as disciplinary measures by the Lobbyists Commissioner." (Radio-Canada, March 6, 2019. Highlights added)

The article also informed that two members of the CCPE had, only days prior, filed a complaint on this subject with the Lobbyist Commissioner of Quebec. One of these citizens expressed the following regarding the situation: *"This risks further undermines the already fragile bond of trust that many citizens have in this business and in the future decisions of our elected officials"* (Member of CCPE, Press release, March 6, 2019). Furthermore, this revelation caused several NGOs and politicians to react, expressing increasing distrust towards Sayona. A spokesperson for *Coalition Québec meilleure mine!* stated the following about the perceived hypocrisy from the company: "*It's like a former doping commissioner advising an athlete to avoid testing."* (Spokesperson for Coalition Québec meilleure mine!, Radio-Canada, March 6, 2019)

Subsequently, groups within the social movement continued to demonstrate in order to reiterate their support for the Authier Project to undergo a BAPE. Citizens feared that Sayona

would modify their project to extract less than 2000 tonnes daily in another attempt to avoid having to undergo the BAPE. A spokesperson for the citizens committee of Saint Mathieu-d'Harricana stated: *"The concern is that if it becomes a smaller project, what will it be? We want to see a mine, a BAPE"* (Radio-Canada, March 9, 2019). Consequently, they argued that any mining project should be subjected to a BAPE assessment no matter the size of the project. The citizens argued that continuous mobilization and demonstrations were important to remain vigilant and to have their voices heard in future parts of the mining project.

Picture 3 & 4: Demonstration called “Une Mine? Un BAPE!” in Amos with more than 215 people attending. Source: (COPH)

After taking a few weeks of analyzing the situation, subsequently to the Minister’s decision to submit the project that they had presented to the BAPE, Sayona announced their intentions of continuing to develop the project. They revised the project by increasing the daily extraction to 2,600 tonnes and decreasing the estimated mine life from 18 to 14 years. This new larger-sized project would then, necessarily, have to undergo a BAPE assessment due to a planned daily extraction of more than the 2,000 tonnes threshold. While new details about the amount of mine waste and tailings and its proximity to the esker worried citizens contesting the project, Sayona persisted that the project was sustainable and that the mine nor the tailings site would have any impact on the surrounding environment. On May 21, Sayona filed its project notice with the Ministry of the Environment and the Fight Against Climate Change, constituting the first step in the environmental assessment process of the Authier Project.

5.2.3 Discursive legitimation in the Authier controversy

This section utilizes the analytical lens of this research to retell the progression of the controversy from a conceptual standpoint and thus answer the research question of this thesis: *How do actors discursively struggle to legitimize themselves throughout sustainability transitions controversies?* The evolution of the different actors' discursive legitimacy strategies throughout the controversy is therefore presented below.

5.2.3.1 Sayona

Particularly interesting to future discussions in this case, is the way in which Sayona legitimized the already contested strategic choice of avoiding the BAPE process through designing a "relatively small" project. **During the first phase of the controversy**, the company legitimized their decision through **rationalization**. Here, the company rationalized that the BAPE process would be too time-consuming, and it thereby would refrain Sayona from entering the market within the "window of opportunity". This strategy is seen in the following statements, made during public consultations for the mining project:

"*The window of opportunity will close quickly because international competition is strong. But our environmental study process is as rigorous as a BAPE"* (Spokesperson for Sayona, public consultation, Le Journal de Montréal, June 19, 2018).

"The BAPE is not a magic formula, it is a public hearing framework that is different from the framework we are currently using, but the most important thing is the environmental assessment and analysis by government experts and by outside experts." (Spokesperson for Sayona, public consultation, Radio-Canada, June 28, 2018)

The company's rationalization was, thus, based on environmental discourse, through emphasizing their environmental protection and neoliberal discourse, by referring to market demands and international competition. Notably, the claims of having sufficient environmental analysis were supported by authorization, through reference to the authority of experts. Furthermore, Sayona's rationalization strategy functioned to support and add credibility to the company's efforts to build moral legitimacy, through emphasizing its commitment to "protecting" the environment and "engagement" with the broader community. In a press release issued after Sayona's first information sessions, the CEO of Sayona commented the following:

"The presentation sessions were a great opportunity for our Canadian team to meet and exchange information with the local communities and the members of the Abitibiwinni First Nation. The Company is committed to maintaining a close relationship with all the stakeholders who will be impacted by the project. Furthermore, we strongly emphasize that the Company is fully committed to the protection of the environment and minimizing its impact on the local community. The Company is looking forward to updating stakeholders in June on the outcomes of the studies and its plan for the future". (Press release, April 13, 2018. Highlight added)

As part of this **moralization** strategy, Sayona furthermore emphasized that the creation of a "relatively small" mine was part of their commitment to minimizing the impacts of the project on the local community and environment. The company stated the following: *"The scale of the mining operations is relatively small at around 1,900 tons per day, which minimizes the impact on the community and environment"* (Press release, April 13, 2018). This construction of the company, as a socially and environmentally conscious actor, was furthermore combined with **authorization** through reference to "expert analysis" of the project. Given the complexity of mining operations and the prevailing concern for the environmental impacts and risks of the project, the company presented these studies as objective facts that attested to the environmental concerns of the company, in alignment with those of the local community. The company furthermore emphasized the expertise of their experts and consultants, thus, building credibility to their efforts of gaining moral legitimacy. This legitimation strategy is seen in the following quote:

"A high level of focus in the meeting was outlining the Company's plans for the protection of the environment. The Company has commissioned a number of studies to examine whether the Authier mine has any physical, biological or social impacts on the environment and communities. The studies are being undertaken by highly reputable independent consultants with extensive experience and expertise in the region." (Press release, April 13, 2018. Highlights added)

Faced with controversy about their project and the strategic decision not to undergo the BAPE process **in the second phase of the controversy**, Sayona undertook to delegitimize the claims of the emerging social movement contesting their project. As such, rather than considering the concerns of the citizens, the company argued that there were no corroborating facts to their claims. Thus, Sayona contested the statements through **authorization** by

emphasizing the legitimacy of their own analysis and experts, as opposed to the citizens. Sayona wrote the following concerning the CCPE, attempting to delegitimize their claims:

"A group of citizens formed and set themselves the task of preserving the integrity of the Saint-Esker Mathieu-Berry. This citizens committee for the protection of the esker is interested in a mining project outside the esker's limits without paying attention to all the current activities going on the esker. This group, well organized, has stirred public opinion by loudly and clearly claiming that the mining project put the esker's drinking water at risk without ever providing any corroborating fact for the hypothesis. Some media have made themselves the speakers of this claim. And when it has become increasingly evident that no data or analysis could corroborate the threat on the water supply, the media strategy of the committee turned to the requirement to hold a BAPE." (Public consultation report, October 2, 2018. Highlight added)

Sayona, in turn, referred to the expertise of their experts to legitimize their own claims, especially with regards to the environmental impacts that the project would have on the esker. In a press release, the Vice President of Sayona stated the following: *"However, scientific expertise clearly establishes that due to its geographic and hydrographic position, the project will not threaten the integrity of the Saint-Mathieu-Berry aquifer esker and will have no impact on water quality.* (Vice President of Sayona, Press Release November 21, 2018. Highlights added). This thus functioned to add credibility to the company's statements, as opposed to those of the CCPE.

Sayona furthermore used **authorization** as a legitimation strategy, through reference to their "commitment" and "respect" for the regulatory process in the province. In a press release, the Vice President of Sayona stated the following: *"From the very start of the Authier project, Sayona Quebec has respected all legal and regulatory requirements to which it is subject, in particular those enacted by the Mining Act as well as the Environment Quality Act."* (Vice President of Sayona, Press release November 21, 2018. Highlight added). Thus, the company utilized this legitimation strategy, implying a taken for granted assumption that adherence to the regulations would make the actions of the company are positive and acceptable.

During this phase of the controversy, the company furthermore reiterated its **rationalization** strategy to legitimize their strategic decision for the project. Sayona argued that the premium gained from entering the market faster would not only benefit the company but also enable Sayona to improve Quebec's competitive position in the global lithium-ion market.

Through this rationalization strategy the company, thus, emphasized the purpose and outcomes of the project, namely gaining a share in the growing lithium market for lithium-ion batteries for EVs. The Vice President of corporate affairs for Sayona maintained that the decision to enter the market faster was part of a well-thought-out strategy, as the BAPE process would be long and costly. He stated the following at an Objectif Nord conference[8]:

"It was part of the business plan to design a 1,900-tonne project to avoid the two to four year delays of the BAPE process. With industrial minerals like lithium, timing is crucial. Right now, companies are trying to secure supplies of spodumene so they can finance the construction of their lithium carbonate or hydroxide plants. It's time to enter the market to conclude five or ten year contracts on our spodumene volumes. We believe there is a premium to being faster. Quebec must seize its share in the fast-growing global lithium market." (Objectif Nord conference, September 25, 2018. Highlights added).

Furthermore, Sayona used **authorization** to add credibility to their predictions about the growing demand for lithium, through reference to market estimates. This is seen in the forthcoming statement:

"*In a recent presentation, Roskill estimated that the total consumption of lithium could be multiplied by approximately 5, going from 189,000 tonnes in 2016 to 1,000,000 tonnes LCE by 2026. Key drivers of demand include laws on emissions to reduce dependence on fossil fuels, incentives government, environmental concerns, technological progress and increasing the supply of products using lithium-ion batteries"* (Press release, September 24, 2018)

Sayona also rationalized that their project would create socio-economic benefits for the citizens, frequently referring to the creation of tax revenues and jobs in the region. This was notably supported by **authorization**, as the company referred to the results of their analysis to add credibility to these claims. In a press release, Sayona wrote the following: *"The feasibility study (EF) of the Authier lithium mine project demonstrates the potential of a new profitable and viable lithium mine that would provide jobs, investments and other economic benefits for the local community"* (Press release, September 24, 2018. Highlight added)

In the third phase of the controversy, faced with substantial criticism, Sayona continuously relegitimized themselves and especially their strategic decision not to submit the project to BAPE assessment, through **authorization**. More specifically, Sayona reiterated their

[8] Entitled: New metals, new mining projects, new business opportunities. Discussing the possibilities of transportation electrification for the mining industry

strategy of referring to the regulations in Quebec to legitimize their project, by emphasizing their "commitment" and "respect" for the regulatory process in the province. In fact, they maintained that they were committed to the law because they had designed a project beneath a daily extraction of 2,000 tonnes. The Director of Sustainable Development stated the following in a press release: *"Our commitment to the region, the community and its citizens is clear: we will respect all the conditions related to our permits, in particular never to exceed 2,000 tonnes per day. We are respectful of the rule of law in Quebec.* (Director of sustainable development, Press release, February 27, 2019. Highlights added).

Sayona also relied on **moralization** during this phase of the controversy, as the company presented itself as a socially and environmentally conscious actor. More specifically, the company reiterated that not only was their strategic choice in compliance with the regulations in the province, it was also a part of a "sustainable development approach", as a smaller-sized mine would provide benefits to the local population for longer, due to its longer lifetime. Moreover, Sayona continuously explained that the project would have no possible impact on the local esker and contrarily focused on the benefits that the project would bring to the local population. The company, thus, leveraged on environmental and social discourses to portray Sayona as a moral actor, concerned about the wellbeing of the local population and the environment. In a press release, Sayona stated the following:

"Sayona Québec once again reiterates its formal commitment to operate a mine with a daily production capacity of less than 2,000 metric tonnes. This tonnage allows the project to be carried out over a longer duration (several years instead of a few) and, by the same token, more attractive spin-offs in terms of jobs and purchases of goods and services. It is a sustainable development approach in line with the wishes of elected officials (including those unanimous in La Motte city council) and a large part of the population. **(**Press release, February 27, 2019. Highlights added)

Interestingly, in the midst of increasing controversy and vocal opposition against the project, the company began focusing more on their community engagement and support from the local population and elected officials. Sayona argued that they were open to meet the demands of the locals and that they enjoyed support from "a large part" of the population. This moralization strategy, thus, functioned to present the company as a social actor in the local community, concerned and conscious about the concerns of the locals. The Director of Sustainable

Development for Sayona emphasized how the company had transferred their head office to La Motte, in hopes that the locals would come and talk to them. He stated: *"What I hope is that the committee comes to see us, then we talk about the project, then we discuss together. I am very open and positive about this"* (Director of Sustainable Development, Radio-Canada, January 18, 2019). Furthermore, the President of Sayona reiterated the company's respect and compliance with the wishes of the local population. This is seen in the following statement, which he made in a press release issued by the company:

"*We are enthusiastic about the dynamism of the region and of Quebec. Québec's international reputation as a favorable and stable mining jurisdiction challenges us particularly in our desire to develop a project on a human scale and which will respect the will of the community to benefit from the benefits over a longer period. In this sense, the exploitation of the mine over 18 years will allow the entire region and the community of La Motte to benefit from jobs, economic spin-offs and taxes over a longer period. We are happy to comply with these requests from the community.*" (President, Press release, February 27, 2019. Highlights added)

While the company used moralization to present itself as a socially and environmentally conscious actor, Sayona simultaneously delegitimized the claims of the citizens' movement. As such, the company on the one hand stated that they were committed to meeting the concerns of the citizens, while on the other hand stating that the citizens' movement had no corroborating facts for their criticisms. Thus, Sayona contested the claims through **authorization** by emphasizing the legitimacy of their own analysis and experts, as opposed to the citizens. The Director of Sustainable Development for Sayona encouraged members of the citizens' movement to accept the "facts and science", stating the following: *"You have to recognize the weight of science, even when science doesn't say what you want [...] I encourage everyone to read the studies that are available on our website and to take note of the second opinions that have been made."* (Director of Sustainable Development, Radio-Canada, January 18, 2019). He furthermore argued that nobody had come to discuss the project with Sayona at their head office in La Motte, which would inform them properly about the "correct" facts about the project.

Sayona attempted to lift the moral status of the company, by emphasizing that the production of lithium would contribute to "the fight against climate change". The **moralization** was, thus, intertwined with **narrativization**, as the company employed metaphors that draw

upon the narrative structures common in wider society. The company leveraged on the metaphor of the fight against climate change, where the project, and the extraction of lithium, was portrayed as necessary if Quebec was to 'win the fight' against climate change. Consequently, Sayona positioned itself on the 'right side' of this battle-like situation, as a part of the 'winning' team. In an interview, the CEO of Sayona emphasized the role of the project in the fight against climate change, stating the following: *"We also often forget to talk about the lithium contribution of the Authier Project, which the region will make in the fight against climate change"* (CEO of Sayona, interview Radio Canada, January 30, 2020. Highlight added).

The company further legitimized the project by creating the narrative that the project was an "opportunity"; both for the local population and also for Quebec to become a leader in the lithium-ion battery industry for EVs. In a press release issued by Sayona, the President of the company utilized this narrativization strategy to position the company as a moral actor: *"We are more confident than ever that this project represents an important development opportunity for La Motte, for Abitibi-Témiscamingue, and for Quebec to position itself in the future lithium market."* (President of Sayona, Press release, February 27, 2019. Highlight added)

In the fourth phase of the controversy, subsequently to the project being subjected to the BAPE, Sayona notably relegitimized themselves and especially their strategic decision not to submit the project to BAPE assessment themselves, through **authorization**. More specifically, Sayona referred to the regulations in Quebec to legitimize their project, through reference to their "commitment" and "respect" for the regulatory process in the province. Sayona's Managing Director stated the following in a press release, subsequent to the Minister of Environment's decision to submit the project to the BAPE:

"Throughout this process, we have emphasized our commitment to the regulatory process, including ensuring production remains under the maximum production threshold of 2,000 tonnes per day as per the requirements of article 22 of the Environment Quality Act [...] While we are naturally disappointed by the Minister's decision, we respect the ruling and remain committed to the regulatory process of Quebec." (Press release, March 6, 2019. Highlights added).

The company furthermore used **authorization** strategies to present themselves as an industry leader, and thus an authoritative expert. By mobilizing expressions such as "experience", "world-class" and "expertise" when presenting the project and the management

team, Sayona assumed a taken-for-grantedness that their expertise and know-how would create a sustainable project that would strengthen the competitive position of the province and benefit the local community. Sayona, thus, relegitimized themselves by emphasizing the important positive contributions of the project, enabled by their expertise and leading role in the industry. On the company website, Sayona wrote the following:

"In keeping with industry best practices, Sayona Québec inc. wishes to use its know-how as a lithium producer to help the Abitibi-Témiscamingue region and Quebec to carve out an enviable place in international markets. This is why we are committed to creating a socio-economic ecosystem that will be both sustainable and productive for all, by hiring local talents and by getting involved with the community." (sayonaquebec.com, 2019. Highlight added)

Interestingly, the appointment of a new CEO during this phase of the controversy, furthermore functioned to support this authorization strategy, by presenting him as an expert authority that would bring an "invaluable" contribution to the success of Sayona. In a press release announcing his appointment as CEO, the Managing Director wrote:

"Guy brings a wealth of experience from not only Canadian but also international projects, with a proven managerial record that should prove an invaluable asset for our growing business in Québec. We are confident Guy will lead our Sayona Québec team to greater success, as we work to unlock the value of our flagship Authier project and other emerging projects for the benefit of all stakeholders." (Managing Director Sayona, Press Release May 13, 2019)

The company, thus, emphasized how their presence in the market and expertise as a lithium producer would support the Government's goal of becoming an international leader in the lithium-ion battery industry. Interestingly, Sayona furthermore leveraged on sustainability transition discourse to lift the moral status of the company, as the company emphasized that the production of lithium would contribute to "the clean energy revolution" and "the global battery revolution". Thus, the company used a legitimation strategy of **narrativization** intertwined with **moralization**, drawing on metaphors of the clean energy or battery "revolution", where the project, and the extraction of lithium, was portrayed as a necessary means. Sayona consequently positioned itself as an environmental revolutionist that along with the Government of Quebec, were the leaders in this revolution. This strategy is seen in the following statement by the Managing Director of Sayona: *"Quebec has the potential to be at the forefront of the global revolution in clean energy and transport technology and we are committed to supporting its*

aspirations." (Managing Director Sayona, Press Release, March 6, 2019). This legitimation strategy, thus, functioned to create a beneficial picture of the company as a moral actor that was on the 'same team' as the Government of Quebec in a revolution for new clean solutions to the climate crisis.

Sayona furthermore used **rationalization** as another dominant relegitimation strategy during this phase of the controversy. Here, the company positioned the project as "timely" and "important" due to the increased demand for lithium, especially focusing on the demand from the energy revolution. Through this rationalization strategy the company, thus, emphasized the purpose and outcomes of the project, namely supplying this growing demand for lithium to support the energy revolution. In a press release, Sayona's Managing Director stated the following:

"The global revolution in lithium-ion battery technology is driving demand for new lithium projects. We welcome feedback from stakeholders into our plans for this timely and important new project, supporting Québec's ambition to be at the forefront of the clean energy revolution" (Managing Director, Press release, June 24, 2019. Highlights added)

Sayona, thus, emphasized the importance of lithium in the energy revolution and consequently the importance of their project. Notably, this rationalization is based on moral grounds, namely sustainability transition discourse, thereby constituting a type of market-based transition. Furthermore, Sayona added credibility to their claims of increased demand for lithium by presenting market estimates, seen in this statement:

"The global lithium battery market is seen growing to US$67.7 billion by the end of 2022, more than double its 2016 value, with more than 60 battery 'mega factories' already built or in the pipeline, up from just three in 2015. This follows announcements by global automakers of multi-billion dollar investments in EVs." (Press release, March 28, 2019)

During this phase of the controversy, Sayona increasingly focused on community engagement and earning a social license to operate. In fact, the first press release that the company issued after the Minister submitted the project to the BAPE was titled: *"Sayona to step up engagement efforts following Quebec regulatory decision",* thus accentuating the company's new focus on this issue. More specifically, the company used **rationalization** as a relegitimation strategy, recognizing the need for social acceptability and a social license to operate to

successfully move forward with the project. Here, the company focused on meeting the demands of local stakeholders and the positive outcome that the project would generate for these, such as "valuable" tax revenues and new jobs. Notably, this rationalization is based on moral grounds, namely societal discourse. The Managing Director of Sayona confirmed this new commitment to local stakeholders, stating the following in a press release:

"Sayona continues to consult closely with key stakeholders with the aim of ensuring a transparent and timely approval process that satisfies the expectations of the community, investors and other stakeholders key to its development. No mining project can be successful without having earned a social license to operate and that is exactly what we are aiming to achieve." (Managing Director, Press release, May 27, 2019. Highlight added)

5.2.3.2 The social movement

While Sayona attempted to establish moral legitimacy **in the first phase of the controversy**, the emerging social movement contesting the project contrarily questioned the moral basis of the company and its strategy. In this **moralization** strategy**,** delegitimizing the project, citizens interestingly emphasized that Sayona was a *multinational* and *international* company that would take advantage of "our" natural resources without concern for the environmental impacts and risks. A spokesperson for CCPE asked the following, questioning the morality of the company: *"Can we really expect that an international mining company that comes here [...] in pursuit of its own interests will really do everything so that there is no harm to the environment for future generations?"* (Spokesperson for CCPE, Radio-Canada, May 2, 2018. Highlights added).

Citizens furthermore questioned the morality of the company's claim that circumventing the BAPE did not change their integrity and environmental concerns. Rather, they described it as a "shortcut", "bad faith", "scandalous" and "disappointing". During a public meeting for the project, a spokesperson for the group REVIMAT stated:

"Suspicion is growing more and more in the region. You say that your project will also be scientifically rigorous, but that is not correct. There is a commissioner in a BAPE who has the right to investigate and demand satisfactory answers from you. You are making a shortcut by saying that your process is also rigorous" (Spokesperson REVIMAT, Public meeting, June 19, 2018, Le Journal de Montréal. Highlights added)

The company's strategy to avoid the BAPE was, thus, portrayed as morally unacceptable. The BAPE process was contrarily framed as the right thing to do to ensure the highest level of environmental protection. The citizens supported this claim by stating that the complexity and technical nature of mining operations made it hard for regular citizens to properly question the analysis of the company. The President of the Société de l'eau souterraines du Québec (SESAT) stated the following: *"Experts from the ministries could ask questions that we, ordinary citizens, cannot ask simply because we do not have the knowledge"* (Le Citoyen, June 28, 2018). The emerging social movement consequently argued that Sayona was implementing an "avoidance strategy" to hide their actual impact on the environment and thus avoid scrutiny. This would, consequently, enable the company to further its own interests, rather than serving the interest of the local population and the environment. They thereby implied that the decision showed that the company had reasons to hide certain aspects of the project, delegitimizing their credibility as an environmentally conscious actor.

Citizens furthermore questioned the credibility of the company by describing their answers during public meetings as "clumsy" and "imprecise". A spokesperson for CCPE stated: *"There are questions which lacked precision, which were evaded, vagueness which were discussed on very precise questions*" (Radio-Canada, June 20, 2018). Having hitherto described that the mine would be less than 500 meters from the esker, Sayona finally stated that the distance in fact was 75 meters. A citizen consequently stated the following during a public hearing, questioning the credibility of Sayona: *"It seems very amateur to me not to know the distance of your project"* (June 20, 2018, Radio-Canada)

Their moralization strategy was furthermore supported by **normalization**, as the emerging social movement delegitimized the project and the strategic decision not to undergo the BAPE process through exemplification of retrospective similar cases. Hence, citizens rendered it natural that the Authier Project would cause negative impacts on the environment, as this was the case with other controversial mining projects. Thus, these groups normalized the company as a morally questionable actor. This is seen in the following statement made by a spokesperson for REVIMAT:

"We are concerned about the long-term impacts that this surface mine project could have on the water quality of the esker located to the north of the project and on the wetlands located to the

south. The history of pollution and environmental accidents related to mines in the region makes us fear for the quality of the water in the esker." (Spokesperson for REVIMAT, press release, May 9, 2018. Highlight added)

In the second phase of the controversy, subsequently to the then Minister of the Environment and Fight Against Climate Change announcing her intention of recommending the Government to submit the Authier Project to a BAPE assessment, citizens contesting the project used **moralization** to delegitimize Sayona. More specifically, citizens questioned the morality of Sayona's decision not to undergo a BAPE and emphasized that there was no social acceptability for the project. A spokesperson for the organization Action Boréal argued the following:

"Unfortunately for the mining company, it demonstrated ill will during the process of its hearings at La Motte and Amos, so naturally, suspicion was created by this bad decision by the company. We sincerely believed that we needed a BAPE in this case, because there was no obvious social acceptability" (Spokesperson Action Boréal, Radio-Canada, June 30, 2018. Highlights added)

Citizens furthermore emphasized that the process of a BAPE rarely puts an end to the project, thereby making the decision to avoid it even more questionable. A citizen asked the following in this regard: *"So why not do one, if it's going to put citizens' minds at rest about things like dust, contamination, wetlands, noise, all the while creating a better framework for the mine?"* (Interview, The National Observer, November 29, 2018). Hence, the social movement used moralization to question the motives and credibility of Sayona's commitment to environmental protection, due to their unwillingness to undergo the BAPE.

Citizens furthermore contested the trustworthiness of Sayona by arguing that the company employed "double speech", undermining the credibility of their claims. They stated that the company on certain occasions said something to their investors and in other instances communicated contrary claims to the public. More specifically, they argued that Sayona had told investors that the BAPE process would only take six months, whereas they had said publicly that the process would be too long because it could take up to three years. Thus, this supported the moral questioning of why the company would not undergo a BAPE assessment.

Citizens furthermore used a **narrativization** strategy, creating a story to legitimize themselves and in turn delegitimize the company. Here, citizens highlighted the difficulty for

them to stand up against a powerful and financially capable company that, as stated in their moralization strategies, was morally questionable. The citizens, thus, created a story much like the one of David and Goliath, in which they fought to get a voice through the process of the BAPE assessment. Thereby, the citizens maintained that a BAPE was the only way in which they would be able to have their opinions heard about the project. A spokesperson for the CCPE stated: *"The first thing that matters is to give voice to anyone who wants to be able to answer their questions, their concerns in a diligent and complete and reliable manner ultimately,"* (Spokesperson, CCPE, Radio-Canada, June 29, 2018. Highlight added).

Citizens contesting the project furthermore portrayed the company as morally corrupt because their money could convince local elected officials and disregard the will of the people. Furthermore, criticizing the company for using intimidation measures during a mining convention, a spokesperson of the CCPE described the relation between 'David and Goliath' as follows: *"What I really saw [at the convention] is the power of money compared to the power of the population's will"* (Interview, The National Observer, November 28, 2018).

During the third phase of the controversy, citizens groups and organizations contesting the project legitimized themselves and their claims through **authorization** by presenting the social movement as an impersonal authority within the controversy. More specifically, the groups typically referred to the "regional consensus" and "the will/concern of the people/public" when legitimizing their position in terms of the project undergoing a BAPE assessment. Moreover, this authorization strategy functioned to add credibility to their claims, as it was presented as undemocratic not to listen to the opinions of the people in the region. A spokesperson for the environmental NGO *Coalition Québec meilleure mine!* stated the following, subsequently to a meeting with the Minister of the Environment and the Fight Against Climate Change:

"We have communicated the concerns of the regional population, all regional elected officials and more than twenty organizations in the regions, who basically ask to assess the environmental impacts and consult the population with a Bureau public hearing before authorizing such a project. I think the minister has understood the message. Now let us listen to the public, listen to people's concerns and environmental concerns" (Spokesperson for Coalition Québec meilleure mine, Radio-Canada, January 28, 2019. Highlights added)

Notably, the social movement also used authorization to legitimize themselves when referring to the support they gained from several artists in the region and members of opposing political parties. These actors were, thus, referred to as authorities, legitimizing, and adding credibility to the actions of the social movement. Furthermore, the groups contesting the project stated that there was no social acceptability for the project, contrary to the claims of the company. Thus, this functioned as a **moralization** strategy to delegitimize the project, as it implicitly argued that the company was lying about having local support for the project. The decision to continue the development of the project without social acceptability was, consequently, presented as morally questionable. A spokesperson for the group REVIMAT stated:

"Contrary to what the mining industry claims, its project does not have social acceptability and threatens several fragile environmental environments, including an esker which supplies one of the best sources of natural water in the world - the same that feeds Eska bottled water." (Spokesperson for REVIMAT, Press release, January 24, 2019. Highlight added)

The moral questioning of the company and its actions were furthermore exacerbated, as members of the social movement emphasized the negative actions and attitudes of the company. A Longpoint community leader from the Anichinabe communities described what he thought was an "aggressive" attitude from Sayona at a citizens gathering. He consequently stated the following: *"I have a lot of trouble with this kind of attitude, we are tired of being upset, of being pushed, as if they were the masters"* (Radio-Canada, January 18, 2019). As such, the moral questioning of Sayona implied a taken for granted assumption that the company was being authoritarian and dishonest with the local population.

While Sayona continuously attempted to establish legitimacy for the project and their contested strategic decision by emphasizing the legality of their actions, the citizens' movement and the CCPE in particular, delegitimized the project through **authorization** by maintaining the illegality of the company's strategy and actions. Rather than respecting the law, they argued that the company was making up numbers to avoid the necessary regulatory process. The group legitimized these claims through reference to the authority of their own analysis of the project by an environmental lawyer, hired by the CCPE and through reference to the mining regulations in

Quebec, which in turn was used to delegitimize the company's strategy. The CCPE consequently stated that the Minister was "obliged" and had "no choice" but to submit the project due to their revelations about the project. The environmental lawyer, who sent the formal notice to the Minister on behalf of the group, stated:

"The minister has no choice but to demand that the company follow the compulsory procedure [...] We ask the Minister of the Environment to confirm our understanding that the project is indeed subject to the procedure on a mandatory and non-discretionary basis." (Lawyer representing the CCPE, Radio-Canada, February 19, 2019)

During the fourth phase of the controversy, the legitimation and delegitimation strategies of members of the social movement and the regional and provincial politicians calling for a BAPE were largely similar. They were, interestingly, using **rationalization** to lobby the Government of Quebec to change the laws regarding the BAPE assessment. They argued that all mining projects should be subjected to a BAPE, no matter the size of the project. This is for example seen on the banner from their protests, stating: *"A Mine? A BAPE! It is not a question of the tonnage!".* These groups, thus, rationalized that the 2,000 tonnes threshold was arbitrary and that changing the regulations would ensure equal levels of environmental protection for all projects and avoid situations such as the Authier Protects. This rationalization was, thus, based on environmental discourse.

Narrativization furthermore contributed to the delegitimation of the project after the submission of the project to the BAPE, by especially providing an overall framework to support the other delegitimation strategies utilized prior by the groups contesting the project. Here, 'dramatic narrativization' was created, presenting the controversy surrounding the Authier Project as a drama in which the company and the members of the social movement were fighting against each other. Interestingly, these narratives were supported by **moralization**, as they relied on environmental discourse. As such, the ultimate goal for the social movement, in these narratives, was the environmental protection of the esker, described as the "blue gold" of the region. Relying on storytelling, members of the social movement portrayed themselves as an underdog concerned about the environment that was fighting against a morally corrupt and

untrustworthy company. The Executive Director of an environmental NGO described it as follows:

"It's been almost a year that citizens in Abitibi have been fighting this fight to protect their water in the face of an Australian mining company that has tried everything to get around the law. This unprecedented citizen mobilization for the protection of the best drinking water in the world is a real source of inspiration" (Press release, Eau Secours, March 5, 2019. Highlight added)

The metaphor of a fight between the company and the citizens and politicians calling for a BAPE assessment was furthermore seen, as the submission of the project to the BAPE was described as a "victory" for the citizens' mobilization. A spokesperson for the CCPE described: *"Today's announcement is a victory for environmental law in Quebec, and above all, a victory for citizen mobilization. Finally, the population will be able to ask their questions and share their concerns within the framework of public consultations led by the BAPE"* (Press release, Eau Secours, March 5, 2019. Highlight added)

5.2.3.3 Local Municipalities

While a social movement was emerging, contesting the Authier Project, elected officials from the Municipalities of La Motte and Amos assumed a neutral position towards the project **during the first phase of the controversy.** More specifically, they argued that they needed more information from the company about the project before taking a position. They, thus, assumed a sort of strategic neutrality in which they used **rationalization** to legitimize their 'lack of' position in the controversy. Elected officials rationalized that they could not take a position before they had more information, thereby justifying their decision not to support the movement that was forming, calling for the company to be submitted to a BAPE. The Mayor of Amos stated the following in this regard: "*It is not a question of trusting or not trusting mining studies [...] Studies are done by people who are credible in the field. Until we have the documents in our possession to analyze and validate them, it is difficult to take a position."* (Mayor of Amos, Radio-Canada, May 16, 2018).

The Municipality of La Motte, interestingly, changed its position from being neutral to publicly declaring their support for the project **during the second phase of the controversy.** The elected officials initially legitimized this decision through **authorization**, as their support

for the project was based on the analysis provided by the company and the subsequent interpretation of these by the elected officials. The deputy mayor stated the following, legitimizing their decision: *"We took the opportunity to study the file in all ways to come to the conclusion that for the esker, there is no problem."* (Interview, Radio Canada, Juli 10, 2018). As such, the Municipality of La Motte, oppositely the social movement contesting the project, assumed a taken-for-grantedness that the files and analysis provided by the company were objective and that they were able to properly interpret these. The decision to support the project was according to the new deputy Mayor based on the employment and tax benefits that the project would create for the Municipality. He stated the following: *"This would be very profitable for the Municipality of La Motte"* (Mayor of La Motte, Radio-Canada, Juli 10, 2018). As such, the Municipality of La Motte, legitimized its decision to support the project through **rationalization**, emphasizing the positive outcome that the project would have locally.

Subsequently, however, the Municipality decided to reconsider its position, as it received criticism for assuming a positive stance towards the project without properly consulting with the citizens beforehand. The Municipality consequently relegitimized itself through **authorization**. Here, it did not position itself as an expert authority as prior, rather, the Municipality relied on independent analysis and expert authority to enhance its credibility and legitimize the future decision. The Deputy Mayor stated the following in this regard:

"We are studying this. We have commissioned an independent study and we will await the results. We will take the time to study all the reports from SESAT [Abitibi-Témiscamingue groundwater company], CREAT [Abitibi-Témiscamingue regional environmental council], OBVAJ [Abitibi-Jamésie watershed organization]. When we will reproach ourselves, it will be final and the last time we will decide." (Deputy Mayor of La Motte, National Observer, November 29, 2018)

The Municipality furthermore relied on **authorization** to legitimize its decision of not demanding a BAPE. Here, the Municipality referred to the authority of the Government of Quebec by stating that it was at the discretion of the Government to demand a BAPE assessment, not the Municipality. As such, the Municipality deauthorized its own role in the controversy, employing *strategic neutrality* to legitimize its decision not to demand a BAPE. The

Municipality furthermore stated that as long as Sayona complied with the laws, it would not oppose the project.

5.2.3.4 Regional and Provincial Politicians

During the second phase of the controversy, several regional politicians and opposing political parties in the National Assembly delegitimized MarieChantal Chassé, the newly appointed Minister, for not submitting the Authier Project to a BAPE assessment. They saw this decision as a test of the new Government's commitment to the fight against climate change and credibility on environmental issues, which she consequently failed by not committing to submitting the project. The politicians, thus, used **moralization** strategies, relying on environmental discourse, to question the moral basis of the Government's actions. They expressed worry about the environmental consequences that would occur if the project was not submitted to a BAPE. Manon Massé, Québec Solidaire's parliamentary leader for example stated: *"Each day we don't act is, unfortunately, one day closer to a catastrophe"* (Radio-Canada, November 25, 2018).

Through this moralization, the politicians, thus, framed the decision to submit the project to a BAPE as the right thing to do, whereas not doing it was described as "unethical" of the Minister. Liberal MNA Marie Montpetit, for example, questioned why the Minister did not authorize a BAPE, she told reporters at the National Assembly that she thought it was: *"... beyond comprehension to see a minister of the environment dithering on whether to do a BAPE for a lithium mine that is a few meters away from the most drinkable water source in the world. I mean, it's fundamental, it's basic."* (National Observer, November 29, 2018. Highlights added).

During the third phase of the controversy, members of opposition parties in the National Assembly and regional politicians continuously reiterated their support for the Authier Project to be submitted to a BAPE assessment. Here, the politicians often reverted to environmental discourse when questioning the legitimacy of the Minister's hesitation to submit the project to a BAPE. Thus, they relied on **moralization** to question the moral basis of the actions, and lack thereof, of the Government. Liberal environment critic, Marie Montpetit, left doubts about the Government's commitment to environmental protection, which is seen in the

following: *"Prime Minister François Legault calls himself the Prime Minister for deals. We are starting to wonder what is the deal behind that, because I see no reason not to ask for a BAPE"* **(**Liberal, La Presse, February 20, 2019).

5.2.3.5 The Government of Quebec

During the second phase of the controversy, the then Minister of the Environment and Fight Against Climate Change, Isabelle Melançon, legitimized her decision to recommend the Government to submit the project to a BAPE assessment through a **moralization** strategy. The Minister argued that submitting the project was the right thing to do based on social and environmental discourse, even though the daily production of the mine would fall beneath the regulatory threshold of automatically being submitted to a BAPE. The Minister, thus, used this moralization strategy to legitimize her decision by presenting the BAPE as an opportunity for all parties involved. As such, because the process would enable the company to improve its social acceptability and the citizens to get answers to their questions and concerns. A press release, issued subsequently to the Minister's recommendation, reads the following:

"It should be remembered that environmental assessment is a privileged instrument for sustainable development that aims for informed decision-making by the government regarding the authorization of major projects or projects of major concern, particularly in the public and Aboriginal communities. As part of this exercise, the population will have the opportunity to obtain information and express their point of view on this project [...] In addition to improving the social acceptability of a project, public hearings allow all parties to present their questions and concerns." (Press release, Office of the Minister of the Environment and the Fight Against Climate Change, June 29, 2018)

Notably, MarieChantal Chassé, who took over the position as Minister of the Environment and the Fight Against Climate Change in the Fall of 2018, employed a quite different strategy in the controversy than her predecessor. The Minister did, despite increasing pressure from the emerging social movement, provincial politicians, and three opposing political parties in the National Assembly, not want to commit to subjecting the project to a BAPE assessment. Rather, she assumed a more proceduralist approach to the issue, stating that she would only take a stance in the case when necessary after Sayona had submitted a permit application to the Government. As such, the Minister assumed *strategic neutrality* in which she,

rather than using her authority to take a stance, **deauthorized** her role to legitimize not doing anything in the case.

During the fourth phase of the controversy, subsequently to submitting the Authier Project to a BAPE assessment, Benoit Charette, the Minister for the Environment and the Fight Against Climate Change, legitimized his decision through **authorization**. As such, the Minister argued that his choice was objective based on the tonnage of extraction, and the submission of the project was, therefore, necessary according to the regulations in place for such projects. The Minister, thus, relied on the impersonal authority of the regulations for mining projects in Quebec to legitimize his conclusion of the project. In an interview with Radio-Canada he stated the following:

"In fact, according to the documents filed by the company as part of its authorization request, the mining project will have a maximum daily extraction capacity above the threshold of 2,000 metric tons according to the criteria established by the Regulation relating to assessment and review of the environmental impacts of certain projects" (Minister of the Environment and the Fight Against Climate Change, Radio-Canada, March 5, 2019. Highlight added)

The Minister furthermore emphasized that his decision was not affected by the pressure from citizens and opposition groups. Rather, he asserted that the conclusion was based on the analysis of his Ministry, which was based on objective facts. As such, the Minister furthermore legitimized his decision through authorization by referring to the objective and factual analysis that it was based on. He argued that his decision was objective, as it was based on the conclusion drawn upon the analysis conducted by his officials. The Minister stated the following:

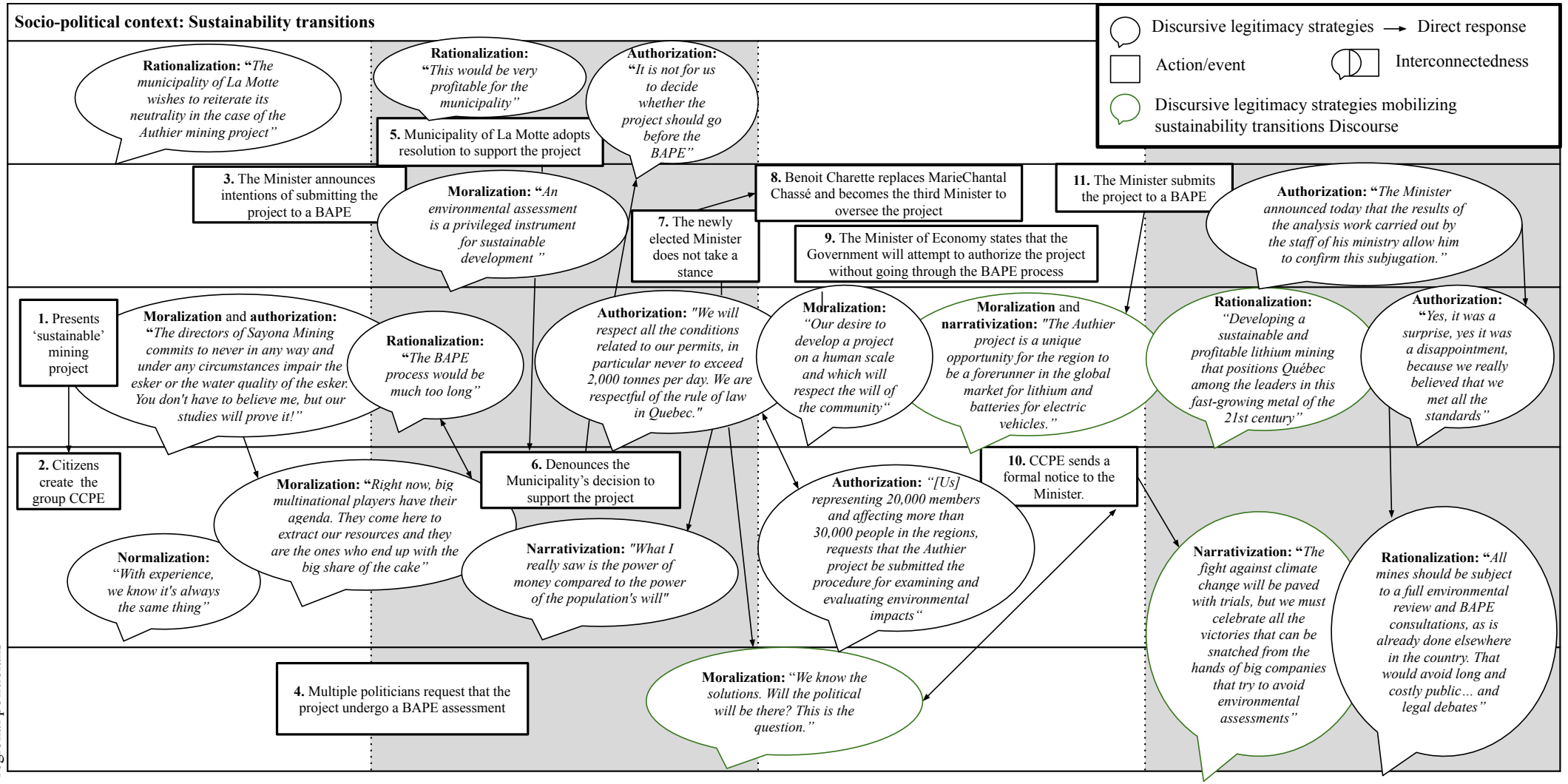
"I must admit that my role was to guarantee the best protection of the environment. I have met with the promoter and the groups questioning the project in recent weeks and what I am telling you today is what I have repeated to them in recent weeks: we do not want to make subjective decisions in a project of this magnitude, we want to be supported by very concrete, very objective facts" (Minister of the Environment and the Fight Against Climate Change, Radio-Canada, March 5, 2019. Highlight added)

5.2.3.6 Summarizing actors' discursive legitimacy strategies in the controversy

Summarizing the above analysis, it becomes evident that Sayona's unwillingness to submit the project to a BAPE assessment largely shaped the discursive legitimacy strategies

throughout the controversy. More specifically, the social movement initially delegitimized the project through creating a narrative of a morally questionable and powerful international company with no concern for the environment, against the comparatively less powerful local population, wanting to protect the environment. Their strategies notably evolved to positioning the movement as an authority that during the last phase was victorious when the Minister submitted the project to a BAPE assessment. Sayona's strategies furthermore changed during the controversy, as the company initially delegitimized contesting claims and maintained the legitimacy of their decision through authorization and rationalization strategies, they began focusing on their relationship with the local community during the last phases of the controversy. Interestingly, both the local municipalities and the Government used authorization and rationalization to legitimize not taking a stance in the controversy. Figure 11, presented below, summarizes the different actors' discursive legitimacy strategies throughout the controversy.

Figure 10: Summary of discursive legitimacy strategies in the Authier controversy



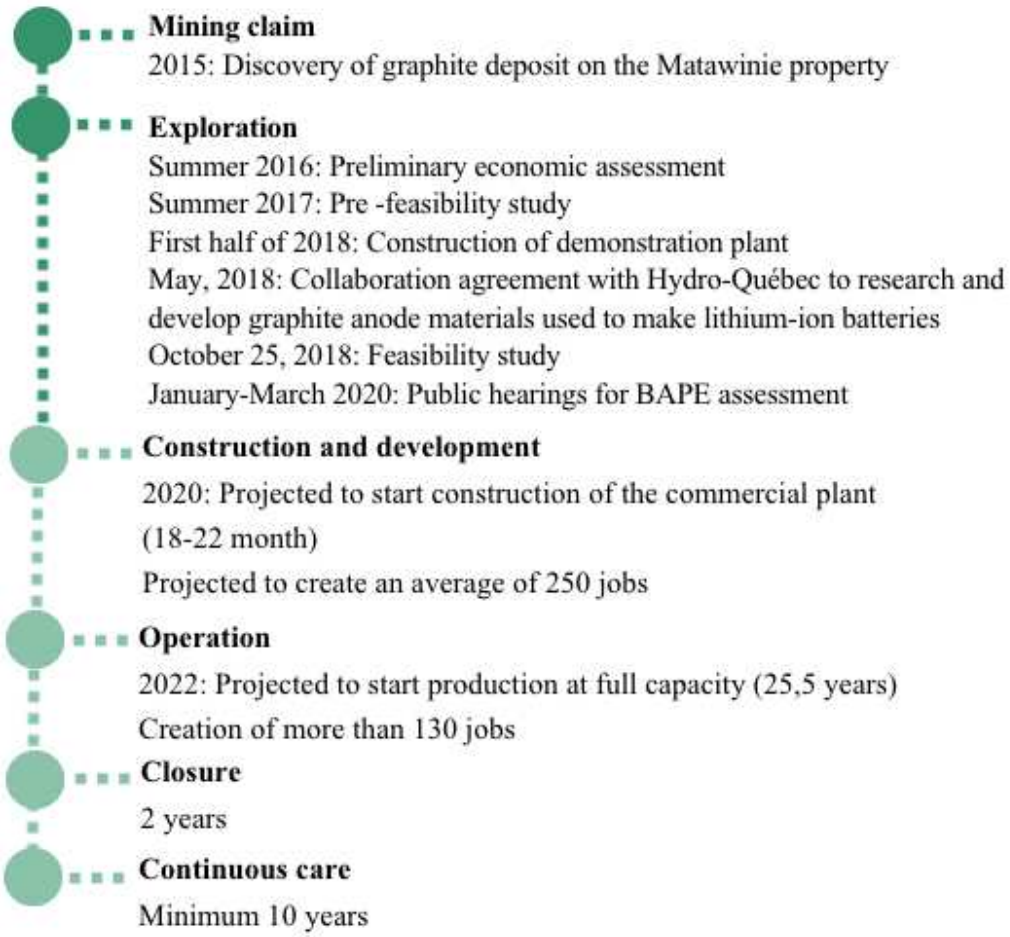
5.2.4 The Matawinie Project

The Matawinie project is an open-pit graphite mine[9] based on the Matawinie property, located 6 kilometers south-west of Saint-Michel-des-Saints and 150 km from Montreal. The property consists of 340 mineral claims that are spread across an area of approximately 75 by 45 kilometers. It is owned by the Quebec mining exploration company Nouveau Monde Graphite (NMG), headquartered in Saint-Michel-des-Saint. The company discovered the graphite deposit on the Matawinie property in 2015 through a 10,000 square-kilometer geological survey. NMG subsequently built a demonstration plant on the property to test its technologies and produce and market the first tonnes of graphite. When the commercial mine will be in operation, it is projected to produce 100,000 tonnes of graphite concentrate per year over a period of 25,5 years, making it the largest open-pit mine in southern Quebec.

Once operations are finished, closure of the mine site is projected to last two years and subsequent environmental monitoring will be carried out for a period of minimum 10 years. The cost of the construction, operations, and closure of the mine is estimated to be $350,4 million, which includes $284,4 million of initial investments in the project. Currently, the project is at an advanced part of the *exploration stage* in the mining sequence, having undergone public hearings for the BAPE assessment of the project between January and March 2020. On June 26th, the Minister of the Environment and the Fight Against Climate Change published the BAPE report of the project, concluding that the NMG must make additional studies and adaptations before the project can be authorized and eventually move into the construction and development phase of the mining sequence.

[9] An open pit mine is a surface mining technique that extracts minerals from an open pit in the ground. MNG will use conventional open-pit methods in the project such as trucking, shovelling, drilling and blasting (Mining-Technology.com, 2020)

Figure 11: Matawinie Project at advanced part of the *exploration* stage in the mining sequence

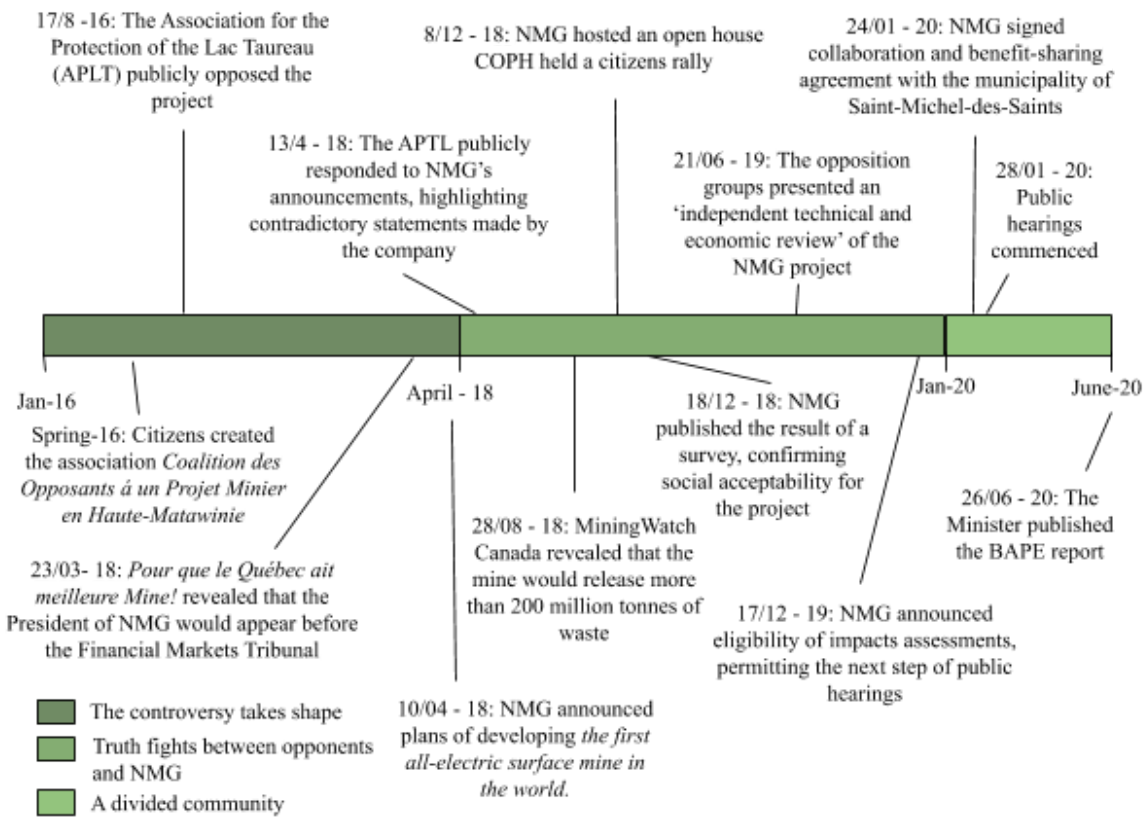


Author's own elaboration

5.2.5 The Matawinie controversy

This section presents the three successive and adjacent phases identified in the Authier controversy. These were determined through the identification of two 'discontinuities in the temporal flow' of the controversy: NMG's announcement of their plans to develop *the first all-electric surface mine in the world* and the company and Municipality of Saint-Michel-des-Saints' signing of a collaboration and benefit-sharing agreement. The timeline below details the main events and communications in the controversy.

Figure 12: Timeline of events and communication in the Matawinie controversy - January 2016 - June 2020



Author's own elaboration

5.2.5.1 Phase 1: The controversy takes shape (2016 - 2018)

Throughout 2016 and 2017, until the Spring of 2018, several events occurred that jointly shaped the controversy surrounding the Matawinie Project. As NMG completed several studies for the project at the beginning of 2016, they consequently hosted public meetings in Saint-Michel-des-Saint to discuss the future plans for the project with local stakeholders. NMG presented a graphite project "with the highest corporate social responsibility standards and the lowest environmental footprint."

Soon thereafter, in the Spring of 2016, an association called *Coalition des Opposants á un Projet Minier en Haute-Matawinie* (COPH) was created by citizens opposing the project, wanting to preserve "the true nature of Saint-Michel-des-Saints". The group argued that the area, renowned for its wild nature, was incompatible with any mining project, no matter which mitigation measures the company would implement. The COPH stated the following, declaring their opposition towards the project: *"The COPH cannot support the Nouveau Monde Graphite open-pit graphite mining project and, in all consistency, refuses to participate in the co-design and/or co-construction of the project in question by sitting on a possible co-design committee set up by the company."* (Public communication, COPH, September 17, 2016)

At the heart of the citizen's concerns was especially the area's "incompatibility" with mining due to the recreational tourism in the region and the ecologically sensitive nature of the area. The mining project would be located in close proximity to the Mont Tremblant National Park and Lac Taureau regional park watershed, which was the first inhabited park in the province. Subsequently to a public meeting hosted by NMG, the *Association for the Protection of the Lac Taureau* (APLT)[10] furthermore joined the opposition to the Matawinie Graphite Project, mainly due to environmental concerns about the impacts that the mine would have. The President of the APLT stated the following:

"On behalf of all those who have had the opportunity to benefit from this rejoice that it is the regional park of Lac Taureau and its surrounding region, and to be assured if they can still for a long time, we will reaffirm our firm opposition to the project of graphite mine open to the gates of Saint-Michel-des-Saints. This project is a direct and irreversible threat to the integrity of natural territory, to the health of the population, as well as the future of the tourist adventure of our beautiful "Adventure Nature" region." (President APLT, public communication, September 17, 2016)

Subsequently, Environmental NGOs *MiningWatch Canada* and *Coalition Pour Que Le Québec Ait Meilleure Mine!* started getting involved and following the progress of the project. This was especially with regard to uncovering the social, environmental, and economic issues raised by the Matawinie graphite project. A spokesperson for *Coalition Pour Que Le Québec Ait Meilleure Mine!* stated the following:

[10] representing more than 400 members

"In recent months, we have received many calls from citizens who say they are very concerned about the impacts of a possible open-pit graphite mine located in the heart of the Saint-Michel-Des-Saints region and upstream the large Lac Taureau Regional Park. So we decided to carry out a first field mission to meet the various stakeholders and better document the issues" (Press release, May 11, 2017)

Meanwhile, however, NMG progressed with the development of the Matawinie Graphite Project, conducting several technical studies to expand and explore the resource estimates of the graphite on the Matawinie Property. During this phase in the controversy, NMG furthermore worked in purifying its graphite concentrate, as part of a value-added product transformation of their product. The development of value-added products on the property was intended for the production of purified graphite concentrate and purified spherical graphite to supply the manufacturers of lithium-ion batteries. NMG consequently announced, in April of 2017, their intentions of developing a demonstration plant on the property. The purpose of this was according to the President and CEO of the company, as follows: *"This demonstration plant will allow us to reach out to potential customers and offer them a reliable, long-term, low-cost North American alternative when they are looking for a new supplier, both on an industrial level and for applications specific to lithium-ion batteries. "* (President and CEO of NMG, Press release, April 19, 2017).

While NMG continuously announced new developments in the project, the environmental NGO *Pour que le Québec ait meilleure Mine!* revealed, on March 23st 2018, that the President of NMG would appear before the Financial Markets Tribunal[11] in Montreal. As such, because he was accused of *"... carrying out illegal investments of securities, in contravention of section 11 of the Securities Act ",* as well as having *"... acted as a securities dealer within the meaning of section 148 of the Securities Act securities, without being registered as such with the AMF"* (Press release, Pour que le Québec ait meilleure Mine!, March 23, 2018). The President and founder of NMG was consequently penalized 10,000 $ for three breaches of the Securities Act, as it was determined that he had not properly registered investors back in 2012.

[11] Autorité des Marchés Financiers (AMF)

While the President explained that this was an “administrative error” and that he could not prior discuss the case, as it was “strictly confidential”, the case raised “concerns” and “questions” amongst members of the groups APLT and COPH, and the coalition *Pour que le Québec ait meilleure Mine!*. A co-spokesperson for *Pour que le Québec ait meilleure Mine!* stated following: *"This whole story raises many questions and risks further undermining the already fragile bond of trust that the company is trying to build with the population in the face of its controversial open pit mine project in Saint-Michel-Des-Saints"* (Press release, Pour que le Québec ait meilleure Mine!, March 23, 2018).

A few weeks after this incident, in April 2018, NMG announced that it would develop a feasibility study by the end of 2018, which would eventually lead to the establishment of *the first all-electric surface mine in the world.* The President and CEO of NMG stated the following concerning this new development in the project:

“*The feasibility phase, which we are currently entering, constitutes the logical continuation of the NMG development plan. By moving forward with the all-electric concept, we intend to demonstrate that NMG can develop by focusing on energy-efficient solutions, already proven with suppliers of international scope while respecting its deadlines and budgets. Electricity is clean, abundant and easily accessible energy on the deposit of our Matawinie property, which allows us to envisage such a carbon-neutral project, which meets our profitability objectives”* (President and CEO of NMG, Press release, April 10, 2018)

5.2.5.2 Phase 2: Truth fights between opponents and NMG (April 2018 - January 2020)

Subsequently to NMG’s announcement of their intentions to build the first all-electric mine, members from the citizens association APTL published a 60-page newsletter, devoted to the anticipated impacts of the Matawinie graphite Project. Within this, the association detailed contradictory statements made by NMG by comparing public speech and detailed content of the pre-feasibility study published by the company. The APTL thereafter publicly ‘responded’ to new announcements made by NMG, using the insights detailed in the newsletter, in a press release titled “*Nouveau Monde Graphite commits other blunders in its public statements: incompetence or bad faith?”*. While the association summarized key contradictory statements, they furthermore argued that the recent announcement of an all-electric-mine was a diversion maneuver from NMG, to deflect public attention away from the actual problems associated with the project. A retired engineer and secretary for the APTL stated the following:

"Whatever type of mining equipment will be used by the proponent, whether it is equipment diesel or electric, it will not change the destruction of several square kilometers of territory to make room for an open pit mine, or the high risks of water pollution associated with operations and mining waste" (Secretary for APTL, Press release, April 13, 2018)

At the same time, in April 2018, NMG signed a framework agreement with the Manawin Atikamekw Council and the Council of the Atikamekw Nation. This agreement was intended to establish the objectives for further cooperation between the parties. The Head of the Atikamekw Council of Matawin stated the following concerning the agreement: *"This framework agreement, which is the first step in a historic negotiation process leading to the conclusion of an agreement on the repercussions and benefits for our Nation, provides a context for conducting discussions based on trust and mutual respect"* (Head of the Atikamekw Council of Matawine, April 12, 2018, L'Action).

Subsequently, in August 2018, NMG furthermore announced the signing of a bilateral agreement between the company and the Municipality of Saint-Michel-des-Saints. This principle development agreement would, according to the company: *"... enhance the collaboration between both parties, clearly defining the environmental and social impacts and taking into account the concerns and needs of the community of Saint-Michel-des-Saints in the development of the project."* (Press release, August 24, 2018). The company moreover announced the implementation of a liaison committee, intended to foster communication between the local community and the company.

A few days later, MiningWatch Canada uncovered, from a new study released by NMG, that the mine would release more than 200 million tonnes of mining waste. NMG subsequently confirmed the accuracy of this number during a public meeting, which is three times the amount that the company originally announced in their pre-feasibility study from the fall of 2017. During the meeting, it was furthermore confirmed that within this waste, "tens of millions of tonnes" would be acidic to very acidic. While NMG argued that this waste would be properly managed and "encapsulated", many citizens remained worried about the environmental risks that this waste would pose to the nearby environment. A member of the COPH and owner of a property bordering the project stated the following:

"The mining company tells us that it would meet the standards before discharging the contaminated water into the environment, but we learned at the meeting that not only are the current standards inadequate but that it is also impossible for the mining technically and legally to guarantee that there would be no pollution of water. The mining company has still not revealed what would be the cocktail of contaminants that would be released or the nature of the treatments planned." (Member of COPH, Press release, August 28, 2018).

In December, the citizens group COPH held a citizens rally called *"Yes to the electrification of transport, but not by undermining our land, our air and our water"*, denouncing the authorization of the Matawinie Project. The citizens groups and environmental NGOs involved argued that the current state of the mining laws in Quebec allowed for mining companies to build projects in sensitive areas, against the will of the local population. They, therefore, emphasized the need to reform these laws to ensure more environmental protection, especially focused on the Mining Act. To this end, representatives furthermore sent an open letter to express their concern to the Government of Quebec. They stated the following:

"Quebec is great. Quebec is rich in mineral resources. Let us make sure to use them in a reasoned manner, to demand much stricter standards, to protect our sensitive environments, and above all to encourage recycling, the circular economy and a reduction in our mining footprint before launching headlong into the exploitation of new mines for the electrification of transport." (Open letter, December 12, 2018. Highlight added)

Picture 5: Citizens rally, December 8, 2018. Source: (aptl.org)

On the same day, NMG hosted an open house day with more than 400 people attending. The purpose was, according to the company, for citizens to discuss the developments of the project with experts invited by the company. Shortly after, NMG published the result of a survey they had commissioned, to measure the local population's perceptions towards the Matawinie Project. NMG stated that more than 80 % of respondents believed that the project would have a positive impact on the region. The President and CEO of NMG was pleased with the result, commenting the following: *"We were already very confident about the reception of the project in the local community, but to learn that more than 80% of the respondents to a Léger survey are in favor of our graphite mine project in Saint-Michel-des-Saints gives us an extra dose of energy."* (Press release, December 18, 2018).

Picture 6: Open house at NMG, December 8, 2018. Source: (nouveaumonde.ca)

Opponents, however, were not surprised by the results that NMG presented from the survey. They contested the results stating that the survey was clearly biased, as it mostly included citizens of Saint-Michel-des-Saints, while the whole region was concerned and affected by the project. Most of the opposition from the project furthermore came from "vacationers" in the region that were not permanent residents of Saint-Michel-des-Saints.

Subsequently, in June 2019, the opposition groups presented an "independent technical and economic review" of the NMG project, conducted by the environmental mining consultancy firm Kuipers & Associates. *MiningWatch Canada* retained the company to conduct this study at the request of citizens opposing the project, to attain an assessment of the technical and financial viability of the project. The COPH stated that the results of the study raised many new questions and red flags about the project that both the Government and citizens should be aware of. The study amongst other things concluded that:

"The Nouveau Monde Graphite mining project remains speculative and its economic viability has not been demonstrated. The hypotheses underlying the feasibility study are generally optimistic and not very cautious, especially regarding the price and market for graphite which remains highly speculative and dominated by large international players who control the market [...] Moreover, the technical and economic viability of an "all-electric" mine has not been

demonstrated: the capitalization and operating costs are not detailed, nor the difficulties and possible operating times. The promoter also plans to use diesel at the outset, which could be sustained over the long term" (Kuipers & Associates Study, June 21, 2019)

After filing an Environmental and Social Impact Assessment (ESIA) in April 2019, NMG announced in December that the Government of Quebec had confirmed its eligibility, which consequently meant that the public hearings of the BAPE assessment could commence. The Minister of the Environment and the Fight Against Climate Change accordingly asked the BAPE to form a commission of inquiry to host public hearings for the Matawinie Project, starting in January 2020.

Opposition groups, however, contested this decision, as they argued that the documents that NMG's had filed contained "false information". More specifically, they stated that the company had documented that they were operating and testing "experimental cells" to store the mine waste from the project, whereas in reality, these cells were never actually built to test the effectiveness of this technology. Arguing that the risk assessment of the project necessarily was incomplete and that the situation was "totally unacceptable", the APLT sent a letter to the Minister requesting him to "severely reprimand" the company and furthermore postpone the BAPE assessment, as the previous approval had been based on untrue information.

5.2.5.3 Phase 3: A divided community (January - June 2020)

The process of the public hearings under the BAPE assessment started as planned on January 28st 2020, despite the opponents' request for the BAPE assessment to be postponed. Before the public hearings commenced, however, NMG announced that they had signed the "most generous of its kind documented" collaboration and benefit-sharing agreement with the Municipality of Saint-Michel-des-Saints. The agreement detailed the contribution that NMG would make to the Municipality during the commercial operating life of the Matawinie Project[12] as well as concrete actions taken to benefit the community. The Mayor of Saint-Michel-des-Saints provided the following comment on the agreement: *"The municipality of Saint-Michel-des-Saints is proud to have reached this collaboration and benefit-sharing*

[12] NMG will contribute up to 2 % of its net cash flow after taxes, an annual advance payment of $400,000 and contribute 1% of its net cash flow after taxes to a Community Fund for the Future.

agreement with NMG. We are certain that it will benefit all citizens as well as future generations" (Mayor, Press release, January 24, 2020).

The BAPE assessment began in January, which commenced with a preparatory meeting on January 14th to prepare and inform the public for the public hearings. The subsequent public hearings were divided into two distinct parts: the first part of the hearings served the purpose of providing complete information about the project, enabling the public to form an informed opinion about the project. The public could, consequently, express their opinions about the project in the second part of the hearings by submitting opinions, comments, analysis, and recommendations to the commission and furthermore to verbally present their position at the hearings.

As part of the informative phase of the public hearings, NMG commenced with an overall presentation of the project. The public could subsequently ask questions about the project, concerning issues they wanted to be clarified by the company. The President and CEO of NMG began the hearings, by presenting NMGs business plan in the following way:

"The project we have, our business plan, now fits into a business model of sustainable development that is part of a circular economy. We are lucky that the market follows our business model. So we, what we are developing is a 100% electric mining operation within the first five years of operation of our project. The first transformation of graphite concentrate, which is used in lithium-ion batteries will also be 100% electric. So we want to transform it into spherical graphite that will be used by lithium-ion battery manufacturers who will sell us lithium-ion batteries to put back in our electric trucks…" (President and CEO of NMG, BAPE, Evening Session of January 28, 2020).

Interestingly, during the second part of the public hearings, 40 members of the public presented their views and positions towards the project. During these presentations it became evident that the citizens were largely divided on the issue of the project, creating two main groups that largely either welcomed or opposed the project. A citizen described the situation in the following way during an interview: *"It is crazy, it's just crazy how much social division there is and how little solutions are there right now to reconcile those two opinions, those two groups of people."* (Interview 1, March 5, 2020).

One group, mostly permanent residents of the region, were positive towards the project and hoped that the arrival of the company would bring much-needed jobs but also economic

development to the region. These citizens were concerned with securing employment for future generations, economic diversification, and local development for the area. One resident describes *"It will create jobs in our region. If there are no projects like this, the young people leave. I am a grandfather and I would like my grandson to stay in the region to work."* (BAPE, January 28, 2020, p. 37). As a natural extension of the recently signed collaboration and benefit-sharing agreement between the Municipality and NMG, the Municipality furthermore expressed support for the project during the public hearings, stressing especially the need to attract young families to the region.

The other group of citizens, opposing the project, mostly consisted of citizens that did not live in the area permanently, but owned a property located in close proximity to the mining project. During the hearings, these citizens that were often referred to as the "vacationers", mainly expressed concerns about the social, environmental, and financial risks that they believed were associated with the project. Citizens furthermore worried about the impacts on the economy developed around recreational tourism in the area, highly dependent on the preservation of the natural surroundings. Fear for the impacts on the environment was generally central to many of the citizens' statements during the public hearings, especially because of the ecologically sensitive environment surrounding the mine site. A citizen declaring himself an 'amateur ornithologist' expressed his concern about the damage to nature would affect the local birds. He stated the following: *"So this is an environment [the wetlands] that will disappear with all its inhabitants and there are thousands of them, because when we take inventory of a swamp, there are ... of course, in addition to the avian fauna, there are amphibians, frogs, amoebas, et cetera. All this will disappear"* (BAPE, Morning session of February 25, 2020, p. 44)

As several vacationers had properties located close to the mine site, they would possibly be more directly affected by noise, pollution, dust, and traffic brought by the project. Many therefore worried about the impacts of the project on the quality of life, the value of their properties, and the health of themselves and their families. For instance, one citizen states the following: *"The impacts on health are enormous: dust, noise, psychosocial impacts"* (BAPE, Evening session of February 25, 2020, p. 31). Several opponents furthermore argued that there was no social acceptability for the mine to move. A citizen stated the following: *"Social*

acceptability is not there. Petitions, demonstrations, letters, opposition. Above all, there is concern and division. I said: what a disappointment and also what a mess." (BAPE, Afternoon session of February 25, 2020, p. 82).

As the BAPE assessment began in January, the commission of inquiry for the BAPE had, as per the regulatory process, four months to fulfill its mandate. As such, the commission had to submit their assessment, a BAPE report, to the Minister of the Environment and the Fight Against Climate Change no later than May 26th. Subsequently, the Minister had a maximum of 15 days to make the report public, which he did on June 26th.

5.2.6 Discursive legitimation in the Matawinie controversy

This section utilizes the analytical lens of this research to retell the progression of the controversy from a conceptual standpoint. More specifically, the evolution of the different actors' discursive legitimacy strategies is detailed.

5.2.6.1 Nouveau Monde Graphite

Notably, **during the first phase of the controversy,** NMG largely relied on **authorization** to legitimize themselves and the Matawinie Project. The company, especially, referred to the authorities of industry experts that NMG worked with during the development of the project. Typical examples of authorization drawing on expert authority were expressions such as "renowned team", "expert team" and "innovative". NMG furthermore emphasized that the consultants and experts they were working with were all "independent" and "qualified", thus establishing credibility to the objectivity of the results of their analysis. This is seen in the following quote: *"Nouveau Monde recently completed an engineering study carried out by Nouveau Monde experts, who have more than 30 years of recent experience in graphite, in collaboration with independent engineering firms including MET-Pro, SNC – Lavalin and WSP"* (Press release, December 4, 2017. Highlights added)

The company moreover used authorization strategies to frame itself as an authoritarian expert by emphasizing the expertise of the NMG team, making the company a leader in the industry. During this phase of the controversy, NMG hired "strategic personnel" to join the

company, to "advance" the project. With the announcement of each new "expert", the company emphasized the expertise and experience that they would bring to NMG. This, thus, functioned to attest to the professionalism of the company, which in turn proactively created a sense of acceptability towards the projects and the strategic decisions taken to develop it. By detailing the expertise and past 'success stories' of the new personnel, NMG notably supported this authorization strategy with **normalization**, by legitimizing their authority through reference to their stories. In a press release titled *"Nouveau Monde announces the addition of three renowned experts to its development team for the Matawinie Project"*, the company wrote the following:

"Mr. Gauthier studied forest management, environmental sciences and human and physical geography with an emphasis on land use planning and local development. He recently obtained a graduate diploma in management applied to the mining industry. Frédéric Gauthier is a geographer with more than 10 years of experience in responsible mining development and land use planning. He has an excellent knowledge of socio-economic and environmental issues at regional, national and international levels… He was also successfully responsible for a rehabilitation program for exploration sites in eastern Russia for Kinross Gold." (Press release, March 18, 2016. Highlights added)

The addition of these experts, thus, served as legitimating authorities for NMG, which ultimately added credibility to positioning NMG as an industry leader. The President and CEO of NMG stated the following in this regard:

"Now that we have discovered a world-class graphite deposit in the Matawinie region, thanks to the best exploration team a general manager can dream of, we are now committed to building a first-class team of experts in industrial and mining development that will launch the company into a new phase of growth." (President and CEO of NMG, Press release, March 18, 2016. Highlights added)

During this phase of the controversy, NMG furthermore used **moralization** as a legitimation strategy. This involved legitimation through reference to environmental discourse and consciousness of the well-being of the "host community". Within this strategy, NMG presented themselves as a moral actor, respectful of the host community and local environment by taking responsibility for the environmental and societal consequences of their actions. The company furthermore reiterated that the project was carefully created following principles of sustainable development. This moralization, notably, made sense due to the citizens' concerns

for the environmental impacts of the project. Following quotes exemplify this moralization strategy:

"The Nouveau Monde team, which has more than 30 years of recent experience in graphite, develops its project with the greatest respect for the surrounding communities while promoting a low environmental footprint." (Press release, December 12, 2017)

"Starting the construction of our Demonstration Factory is an exciting step as much for Nouveau Monde as for our various stakeholders, which are our employees, our host community and our shareholders. We are all likely to gain from the benefits of this project, which begins with the first phase of graphite concentrate production and will continue with the production of value-added products such as battery-grade graphite equipment" (President and CEO of NMG, press release, December 3, 2017. Highlights added)

NMG, thus, focused on the benefits that the project would have for the local community and furthermore their intentions of maximizing these. Interestingly, NMG used wordings such as "our host community" and "we", implying a taken-for-grantedness of the togetherness of the company and the local community.

During the second phase of the controversy, NMG largely relied on **authorization** for legitimation and relegitimation purposes. As opponents of the project considerably contested many claims made by the company during this phase of the controversy, NMG relegitimized themselves through defensive responses. Here the company emphasized how their analysis and experts were comparative more credible and thereby legitimate than the claims of the opponents. The president of NMG responded to the results of Kuipers & Associates report in the following way:

"We paid attention to it, but it's still a short study, less than 20 pages and carried out by one person. However, our feasibility study was carried out by fifteen specialists and required more than 10,000 hours of work. It is hardly comparable in terms of studying the viability of the project" (President and CEO of NMG, L'Action, June 27, 2019)

Notably, the company often used industry experts, multiple analysis and reports, investors, partners, and local stakeholders as legitimizing experts to add credibility to the actions and statements of the company. The company used these authorization strategies to frame NMG as an industry leader and thus an authoritarian expert. Typical examples of these strategies were seen in expressions such as "expert team", "prestigious" and "highly experienced". The company

frequently referred to the expertise of their employees and the experts and companies they hired to conduct analysis for the project, as seen in the following quotes:

"Prior to launching this all-electric project feasibility study, last Fall 2017, NMG brought together an international team of experts: The Task Force Committee (TFC), recognized worldwide for their knowledge and expertise: ABB Inc., Doppelmayr Canada LTD, Met-Chem Canada Inc./DRA, Medatech Engineering Services Ltd and SNC-Lavalin Inc." (Press release, April 10, 2018. Highlight added)

"I am delighted to welcome such accomplished technical professionals to our team. Their presence significantly strengthens our technical capability and our ability to execute and deliver the Matawinie project. [...] I am very pleased to welcome Arne Frandsen and Christopher Shepherd to our Board of Directors. Both gentlemen bring extensive capital markets expertise with a focus on mining. Their unique talents and perspectives are accretive to that of our existing board members and I look forward to working with my expanded Board of Directors as we collaborate on the strategies to bring the Matawinie project to production." (President and CEO of NMG, Press release, May 28, 2019)

NMG notably announced multiple investments and partnerships with several companies and organizations during this phase of the controversy. The company consequently legitimized itself through reference to the expertise and prestige of these new investors and partner organizations and research labs. Here, the NMG emphasized how partnerships and relations with these expert authorities would bring expertise and innovation to the company. Accentuating the confidence that these authorities evidently had to invest and work with the company, furthermore served to present NMG as a trustworthy actor and partner. This was especially significant during this phase of the controversy, in which the opponents contested the trustworthiness of the company. Following quotes exemplify this authorization strategy:

"We are proud to secure an investment by The Pallinghurst Group, which brings expertise in developing mining operations and the funding for the development of the Matawinie Project. The introduction of one of the world's leading mining investors into Nouveau Monde confirms the potential of the Matawinie Project to become a major, world-leading producer of low-cost, high-purity battery-grade graphite." (President and CEO of NMG, Press release, April 3, 2019. Highlights added)

"We're honored to be working with one of the most prestigious battery materials labs in the world and to act as a vector bringing these innovative technologies developed here in Quebec to market" (President and CEO of NMG, Press release, May 17, 2018)

The company furthermore used these authorization strategies to add credibility to the referencing of themselves as industry leaders and thus an authoritative expert. The company emphasized how their expertise made them "green", "world-class", "carbon neutral" and a "premier graphite producer" and thus enabled them to have the least impact on the environment and positive impacts on the local population. This authorization was consequently intertwined with **moralization**, as it supported the company in presenting themselves as an environmentally and socially conscious actor. This is for example seen in the following quote, where the company's President and CEO positioned NMG as a first-mover and advocate for environmentally conscious projects, stating the following: *"I hope that everyone goes all-electric. It's good for business, it's good for the environment and I think that's the way to go."* (CIM Magazine[13], June 11, 2018). The company especially emphasized how the expertise of the team and partners enabled them to build the 'first-ever' all-electric mine in line with sustainable development principles. Discussing their new all-electric mining plan, the President and CEO of NMG stated the following:

"A multidisciplinary and experienced team has been set up to ensure the implementation of innovative solutions that encourage sustainable development. To name a few, Nouveau Monde aims for carbon neutrality with the development of a 100 % electric-powered mine project, has designed the mine with the use of a co-disposal landfill system, as well as implementing a system of gradual backfilling of the pit and site restoration" (President and CEO of NMG, press release, October 25, 2019. Highlights added)

Interestingly, the company furthermore legitimized themselves as a moral actor by emphasizing their cooperation and agreements with local stakeholders. Here, NMG supported this moralization by framing citizens as local authorities, important to a successful realization of the project. The company especially focused on how the insights, advice, knowledge, and concerns shared by the local community enabled NMG to better their project and help ensure the best possible environmental protection. This is seen in the following quote, where NMG emphasized the importance of the contributions of local stakeholders:

"Their [local stakeholders] contribution to the various phases of the project made possible the presentation of a robust and integrated plan to the governmental authorities. It takes into consideration both the operational and economic prerequisites while being a model of

[13] The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) is an association for minerals industry professionals.

sustainable development for future generations. The Company has designed and implemented a technically and economically optimized project to fully value the resource and to ensure harmonization with the host environment, its identity, its characteristics, and its natural environment." (Press release, October 25, 2019)

The company furthermore used this moralization strategy to relegitimize themselves, when faced with citizens concerned and opposing the development of the mine. Here, the NMG emphasized their social responsibility as a company and reiterated that they did everything to eliminate the citizens' concerns. At a shareholders meeting in June 2019, the President and CEO of NMG stated the following: *"I understand them being here and being worried because it is a mine that will open next to their chalets. It wasn't the deal when they bought it. Our social responsibility is to serve as a buffer. That is why we acquire the properties of worried people."* (Shareholders meeting, June 21, 2019).

Through this moralization strategy, NMG furthermore consistently declared their commitment to the local community and environmental protection as core values of the company. The company emphasized the different measures they took to achieve the best possible result, which was part of their overall concerns for the project. This is seen in the following quote:

"It is an honor for our team to develop this graphite mine project in partnership with all local players and stakeholders. This privilege to exploit Quebec's natural resources comes with important responsibilities that all of our members understand and adhere to with great respect. Since its foundation, Nouveau Monde has always valued and operated under the highest environmental and social standards while conducting its activities." (President and CEO of NMG, Press release, October 25, 2019)

This strategy was notably supported with reference to the legitimizing authority of their survey concerning the citizens' perceptions of the company. Relying on this survey, the company concluded that there was wide support and thereby social acceptability for the project amongst local citizens. Through reference to the results of the survey the company furthermore used the positive perceptions from the majority of the citizens to legitimize the project, as it was framed as the will of the population to develop the project. The President and CEO of NMG stated the following in this regard:

"We are aware that 9% of respondents are not in favor of the project and we have always been clear on this point: there is no way we will oppose the majority of the population to the minority who has a different opinion on our project. One of the main concerns expressed in the last few years is the preservation of the quality of the environment and the quality of life and that is why we work hard, day after day, to achieve a project that meets environmental standards, a project that integrates its environment, an all-electric project, a project that sets the standards for 2020" (CEO and President of NMG, Press Release, December 18, 2018. Highlights added)

The company furthermore legitimized the project through **rationalization**, by emphasizing the positive outcomes for the local population. This rationalization typically involved reference to the number of jobs created and local development. This strategy is seen in the following quote: *"Acknowledging the fact that natural resources are one of the cornerstones of the local development, the realization of NMG's Matawinie project will create many jobs, increase development and economic diversification, thus enabling the municipality to improve the environment and the living conditions of the local population."* (Press release, August 24, 2018).

Lastly, during this phase of the controversy, the company furthermore used rationalization to legitimize the project, by emphasizing the importance of their "green" product and the advantage that it would provide Quebec in the lithium-ion battery market. NMG, thus, assumed a taken-for-grantedness that their expertise and innovative project would create a sustainable project that would strengthen the competitive position of Quebec and promote transportation electrification in the province. This rationalization was notably intertwined with moralization, as it promoted the company positively, through the use of sustainability transitions discourse. This rationalization is seen in the following quote:

"Sustainable development and the environment have been at the forefront of our project development plans since the project began and we are committed to producing environmentally friendly graphite products that utilize the green hydroelectric and environmentally responsible mining techniques. Our green purification process uses renewable hydroelectricity from Quebec, which allows Nouveau Monde, the lithium-ion battery industry and Quebec to shine through these responsible and sustainable innovations." (Press release, August 20, 2019. Highlight added)

In the third phase of the controversy, while NMG presented the project and answered the questions posed by the public during the first part of the public hearings, the company

furthermore communicated and thus legitimized themselves through other means of communication during this phase of the controversy, such as press releases, interviews, and open letters. In these communications and statements during the public hearings, NMG largely used **authorization** as a legitimation and relegitimation strategy. Here, the company referred to the legitimizing authority of company experts, analysis, the Government, and the market. Faced with critical questions during the public hearings, NMG especially referred to the legitimizing authority of experts and their analysis of the project. Here, the company moreover emphasized the number of pages in the reports, the money spent on their analysis, implying a taken-for-granted assumption that this increased the credibility of their claims, especially in regards to their environmental protection. This authorization strategy is seen in the following quote:

"The impact study was produced by SNC-Lavalin it cost more than 3 million dollars, since 2016 we have begun studies to characterize the environment, followed by impact studies in parallel with our feasibility studies. This is a document that we tabled a little less than a year ago in April last, of 5,206 pages, which was written by 52 different experts in each of their fields of expertise. We received several questions, 126 questions from the Ministry. We answered several hundreds of pages of answers, so these are documents that are very exhaustive, very complete" (BAPE, Evening session of January 28, 2020, p. 15. Highlights added).

Faced with criticism regarding the experimental cells to store the mine waste from the project, the company furthermore relied on authorization to legitimize this technology. More specifically, NMG emphasized that this technique was approved by the Government, thus adding credibility to their claims. This strategy was notably supported by **normalization**, as the company referred to other projects successfully using this technology to legitimize the company's choice of experimental technology. In an interview, the President and CEO of NMg stated the following:

"So the residue management technique we proposed was hands down, applauded by the people of the Ministry of the Environment before the BAPE. It is a technique that allows us to put in the same, in the same physico-chemical state, the material we took to avoid the start of acid reactions. A method that is used in several dozen operations on the planet in 2020. You cannot build a project without looking at what has been done in the past to ensure that we develop a project that meets all the standards." (Interview, President and CEO of NMG, Radio-Canada, February 4, 2020. Highlight added)

Through reference to "market estimates" and "market demands", the company furthermore **rationalized** that the "profitable" and "expanding" graphite market would create an increased demand for their product and ultimately ensure the financial viability of the project. In an article, the President and CEO of NMG wrote the following: *"The World Bank predicts a dizzy increase in demand between now and 2050 for these strategic minerals: 383% for graphite, on which we are focusing our attention, and up to 965% for lithium!"* (Article posted on nouveaumonde.ca, January 28, 2020). This, notably, also included reference to the legitimizing authority of the World Bank, making such predictions about the market. This rationalization strategy, through reference to the increased demand in the market, was furthermore connected to the growing demand for EVs. Here the company rationalized that the commercialization underway of EVs would inevitably lead to an increased demand for graphite, and thus NMG's product. On their website, NMG stated the following:

"Graphite is a critical component of lithium-ion batteries and cannot be economically substituted. With the growing demand for electric vehicles, the production of lithium-ion batteries must follow the same rate of growth, which greatly increases the demand for graphite for their manufacture. Almost all commercial lithium-ion batteries use graphite, even requiring up to 15 times more graphite than lithium for their manufacture, with each electric vehicle battery requiring an average of 50 kg of graphite." (nouveaumonde.ca, 2020 Highlights added)

The company, interestingly, added credibility to these claims through reference to the industry leader Tesla. Tesla was, as a well-known industry leader within EVs, referenced as an authority, whose demands and success would largely influence the future of NMG. In an interview, the President and CEO of NMG stated the following: *"So we think of Tesla, which will grow to a million vehicles. Volkswagen is thought to want to make 3 million vehicles in 2025. At one point, we are the biggest project in the western world. We need to find more [graphite]"* (Interview, CEO and President of NMG, Radio-Canada, February 4, 2020). This **rationalization** strategy was, thus, intertwined with **authorization**, as the company rationalized that the electrification of transportation and growth of Tesla would lead to an increased demand for NMGs products.

The company furthermore rationalized that their business strategy - "a carbon-neutral vision and an all-electric mining concept" - provided them a competitive advantage on the

graphite market. More specifically, NMG stated that their green product would be a key product differentiator, especially in regard to customers in EV manufacturing looking to reduce their environmental impacts. Notably, while this rationalization relied on neoliberal discourse, it was based on moral grounds, more specifically sustainability transition discourse, thereby constituting a sort of market-based transition. In a press release NMG described a new improvement to their all-electric mining concept, which would contribute to their competitive advantage:

"The preliminary project is an important step in our electrification strategy, as the power line will guarantee a reliable, affordable and dedicated supply of renewable energy. This will give us a competitive advantage that lets us bring to market a product with the smallest possible environmental footprint" (Press release, April 15, 2020)

The company moreover legitimized and relegitimized the project by rationalizing the positive outcomes and contributions that the project would make to the local community and the electrification of transportation in Quebec. Presenting the project during the public hearings, the President and CEO of NMG stated: *"There are many people who need the project, who are going to be able to work there and enjoy it. There are already local suppliers taking advantage of all this, we have no need to bring - fly-in / fly-out - people to the site. So there are a lot of advantages."* (BAPE, Evening session of January 28, 2020, p. 12).

The company furthermore used **moralization** strategies to relegitimize themselves, when faced with citizens concerned and opposing the development of the mine. Here, NMG emphasized their social responsibility as a company and reiterated that they did everything to eliminate the concerns of these citizens. The company, thus, presented themselves as a socially and environmentally conscious actor, concerned with the opinions of the local citizens. This moralization strategy is furthermore seen, as the company repeatedly emphasized the importance of the BAPE, as a democratic tool ensuring that everyone's opinions are heard. This moralization is seen in the following excerpt from a press release:

"From the start of the exploration work, Nouveau Monde has demonstrated a strong commitment to the community through open dialogue and an intent to maximize spinoffs for Saint-Michel-des-Saints and Upper Matawinie. The cooperation and benefit-sharing agreement is therefore based on requests expressed by local stakeholders, on sustainable development

principles, and on the agreement in principle reached in August 2018." (Press release, January 24, 2020. Highlights added)

Interestingly, the company furthermore legitimized the project through strategies combining **moralization** and **narrativization**. Here, the company constructed narratives which confirmed the moral status of the company by presenting NMG as an adversary of environmental protection, by adopting a 'discourse of care'. These narratives, thus, functioned to portray the positive intentions and impacts of the company's behavior. More specifically, the company created narratives in which Quebec and the Matawinie Project were the solution that could *"propel the energy transition ethically and responsibly"* (Article posted on nouveaumonde.ca, January 28, 2020). In an article written by the President and CEO of NMG, under the title: *An Electrifying Future for Quebec*, Quebec was presented as the catalyst that can unite hitherto irreconcilable concepts, contributing positively to the sustainability transition. The article stated the following: *"Reading the headlines, one could think energy and the environment are fighting a hard battle. What if Quebec could help make these two concepts allies rather than opponents?"* (Article posted on nouveaumonde.ca, January 28, 2020).

The company furthermore built a narrative of being allies with the local population of Quebec, to responsibly and sustainably develop the collective wealth of the province to collectively contribute to the energy transition. More specifically, the company used wordings like "us", "our community" and "collectively support", as part of the narrative of being equal partners and part of the solution to the climate emergency. This narrative furthermore portrayed the company as a moral actor that is environmentally conscious and respectful of 'its' community. NGM, thus, legitimized themselves by positioning the company on the same team as environmentally conscious citizens in Quebec. This is seen in the following quotes:

"We have always placed a high priority on sustainable development, respect for the region's natural character, and the promotion of the interests of Upper Matawinie. The BAPE's review of our project will allow us to demonstrate the soundness of our approach and the seriousness of our commitment to this community, which is our community too. Responsibly developing this world-class graphite deposit will collectively enable us to support social development in the region, contribute to Quebec's economy, and propel the energy transition forward on a global scale." (CEO and President of NMG, Press release, December 17, 2019. Highlights added))

"I invite Quebecers of all backgrounds and ages to reflect on the place we wish to occupy as a society in this energy transition." (CEO and President of NMG, Article posted on nouveaumonde.ca, January 28, 2020. Highlight added).

The President and CEO of NMG furthermore told the story of the project as a predestined journey, "a new world" that nature has left for him and the company. This narrative furthermore functioned to differentiate NMG from other mining companies, as the new technologies enabled the company to find what was destined for them in nature. Before presenting the project at the public hearings, the President and CEO of NGM told the story as follows:

"A little history of our company: How it started in 2012, it was an idea of exploration. It's really the story of an exceptional discovery we made in the region of Saint-Michel-des-Saints. Then how we chose this region, how we ended up in Saint-Michel-des-Saints, it is not a coincidence. We started exploring early in the Outaouais, we had targeted an area of more than 20,000 square kilometers of airborne geophysics. Then to target the place here, we followed the statement behind our company name a "New World". This pushed us to explore new territories that had never been explored, which presented mineralogical assemblages, metamorphic properties similar to known deposits of graphite in the Outaouais." (BAPE, Evening session of January 28, 2020, p. 10)

5.2.6.2 Opposition groups and environmental NGOs

During the first phase of the controversy, citizens groups contesting the Matawinie Project largely delegitimized the project through **moralization** strategies. Firstly, this was seen in the argument that the project was "incompatible" with the region, especially due to the proximity to national parks and the ecologically sensitive nature of the environment in the area. The citizens groups and NGOs contesting the project, thus, delegitimized the existence of the project by emphasizing the risks associated with developing such a project in the region. The COPH stated the following: *"Considering also [...] That a possible degradation of the region's ecosystems, a risk inherent in this type of project, would be a sad social and environmental consequence, and perhaps also a huge loss for healthy long-term economic development in the region."* (Public communication, COPH, September 17, 2016)

The citizens groups furthermore disputed the trustworthiness of NMG, as they argued that the company was deliberately hiding information about the environmental impacts of the

project to the public, thus making them morally questionable. A member of COPH stated the following, exemplifying this moral questioning:

"We have not been assured of anything by the proposals of the Nouveau Monde mine. NMG promises us "the moon" for one product intended for the manufacture of electric car batteries, but avoids talking in detail about the contamination risks that the 60 million of tons of mining waste that will be left forever on the territory, at the heart of the basin overlooking the Matawinie River and Lake Taureau represents. These waters, like the many other lakes around the mining site, are at the heart of our quality of life and our regional economy" (Member of COPH, public communication, August 21, 2017. Highlights added)

Opponents and environmental NGOs furthermore delegitimized the project through moralization, by questioning the morality of the actions of the CEO and President of the company. More specifically, by pointing to the fact that he was hiding accusations against him, they presented him as untrustworthy and morally questionable. A spokesperson for *Pour que le Québec ait meilleure Mine!* asked the following: *"Why haven't you revealed anything before? Are there other skeletons in the closet that should be revealed now?"* (Spokesperson, Press release, Pour que le Québec ait meilleure Mine!, March 23, 2018). One 'incident' was, thus, used to question the general trustworthiness and professionalism of the President and CEO of NMG by implying that he would be hiding other things as well. The moral questioning of the President and CEO's actions furthermore delegitimized the quality of the leadership and decisions taken by the company, both with regards to prior and future actions. This is seen in the following statement where *Pour que le Québec ait meilleure Mine!* questioned whether other members of the management in NMG had not spoken up about this issue:

"The Coalition asks Mr. Desaulniers to explain himself about the errors and illegal acts that the AMF accuses him of having committed. The organization also wonders if the other leaders of the company were aware of this investigation and why no one has revealed anything." (Press release, Pour que le Québec ait meilleure Mine!, March 23, 2018. Highlights added).

These moralization strategies were furthermore supported by **normalization**, as the citizens groups legitimized their claims through reference to past cases where mining companies were acting immorally. The citizens groups, thus, emphasized that NMG was untrustworthy, as this was the general experience with mining companies in the past. A member of COPH stated the following: "*The company makes a lot of promises, but other experiences clearly demonstrate*

that the companies often do not keep their promises and that governments do not apply the standards properly. So how can we have confidence?" (Member of COPH, public communication, August 21, 2017)

Interestingly, **during the second phase of the controversy**, opponents of the Matawinie graphite project largely relied on factual discourse to legitimize their own claims and in turn delegitimize NMG. Given the complexity of mining and the prevailing environmental concerns about the project, the opponents used 'objective facts' obtained from expert analysis to support their moral questioning of NMG and the project. They consequently used independent analysis and industry experts as legitimating authorities to delegitimize NMG and their claims. Opponents, thus, especially relied on strategies of **authorization** to delegitimize NMG during this phase in the controversy. This is seen in the following quote, in which the APLT firstly repeats the promises made by the company, and subsequently presents their contradictory statements:

"That the water would be 100% recycled, that no water flow would come from outside, and that the water would come only from its mine pit, <u>while the studies of its consulting engineers rather show that 2 wells would be used to supply 548,000 liters of water per day.</u> And in another interview this week, the promoter even claims that he would use up to 10 wells to supply his mine with water! <u>How can these contradictory statements be reconciled</u>, and additionally claim that water would be 100% recycled if up to half a million liters of new water has to be pumped every day?" (Press release, April 13, 2018. Highlights added)

Interestingly, the opponents largely relied on the studies presented by the company itself to present NMG as untrustworthy and in turn add credibility to this claim. Opponents questioned the truthfulness of the claims made by NMG and furthermore the underlying reasons for these contradictory statements. These authorization strategies were, thus, intertwined with **moralization**, as it furthermore entailed a moral questioning of the company. This moral questioning, supported by authorization, is seen in the following quote: *"It is completely false and this is either a lie or gross incompetence. In both cases, it is very worrying for the rest of things and it is a continuation of the many falsehoods or contradictions affirmed by this company for more than a year "* (Secretary for APLT, Press release, April 13, 2018)

Opponents furthermore contested the estimates and data presented by NMG with regards to the financial viability of the project. More specifically, they argued that the company was

overestimating financial calculations and underestimating the risks and costs associated with the project. This **authorization** delegitimation strategy challenged the taken for granted assumption and 'objective facts' provided by NMG to legitimize the project, by presenting contradictory estimates for the graphite market. Opponents relied on neoliberal discourse and technical language to criticize and thereby delegitimize the claims made by NMG through reference to the study *MiningWatch Canada* commissioned an engineering company to conduct. Citizens used this study to build credibility in their claims when delegitimizing the project.

The contestation of the financial viability of the project was furthermore related to environmental concerns, as opponents rationalized that without financial viability, the company would not be able to pay the cost of cleaning up the toxic mining waste from the mining site. As such, this authorization strategy was furthermore supported by **rationalization**, as opponents and environmental NGOs rationalized that the outcome of the bad finances of the company would leave the local environment and citizens to pay the price. This is seen in the following statement made by a member of COPH:

"The mining engineer notes that the price of graphite forecast in the feasibility study (US $ 1,730) is inconsistent with the prices forecast in short term and in previous studies (US $ 1,124 to US $ 1,532), a difference of 11 to 35%. He believes that the exchange rate of 0.76: 1.00 $ CD / US expected over 20 years is not prudent and inflates revenues. On the expenditure side, many costs are adequately underestimated or undocumented, including costs for the management of 107 million tonnes of waste mining, treatment of contaminated water, restoration of the site after closure, mitigation measures for dust and noise, as well as compensation for neighboring residents, the municipality and the Aboriginal Nation" (Member of COPH, Press release, June 21, 2019. Highlights added)

Interestingly, opponents furthermore delegitimized the project through **moralization** by questioning the appropriateness of developing a mining project in an ecologically sensitive area where the Matawinie Project was located. Especially concerned about the environmental impacts and risks that the mine would pose, opponents called for the Government not to authorize the project and to review the laws, which they considered to be arbitrary, outdated, and insufficient. In an open letter to the Government of Quebec, members of COPH stated the following:

"Mr. Legault, if Quebec wants to engage in the exploitation of more lithium and graphite mines to provide transportation electrification, it is urgent to review our laws and standards. Quebec

must above all say "no" to mining projects located in sensitive areas of high ecological, social and economic value for all Quebecers" (Open letter COPH, December 7, 2018. Highlight added)

They furthermore argued that companies can take advantage of the current state of the laws, to build projects in sensitive areas, against the will of the local population. The development of the Matawinie Project was, thus, generally delegitimized by questioning the morality of the decision to allow the project. The following quotes represent such moral questioning: *"It's foolish to allow, even today, such mining projects in any environment in Quebec. We need much stricter limits and standards, and that the government apply those standards."* (Member of COPH, Press Release, April 24, 2018)

During the public hearings, **in the third phase of the controversy,** opponents of the Matawinie Project dominantly relied on **moralization** to legitimize themselves and in turn delegitimize the project. This strategy was very explicit, relying mainly on environmental and humanistic discourse. The opponents extensively discussed the negative environmental and social impacts of the project from a critical perspective during the public hearings. Several citizens emphasized the overarching health concerns related to the project in their statements given at the BAPE hearings. For instance, one citizen stated the following: *"Health and the quality of life of many citizens will be at risk. For me it is first: noise, dust, blasting, traffic, et cetera. In short, the other side of the coin of a green project."* (BAPE, Evening session of February 25, 2020, p. 37). The opponents, thus, questioned the moral basis of the project by emphasizing the, to them, undeniable consequences of the project. These testimonies thereby functioned to delegitimize the development of the project, furthermore often describing the project as an "environmental disaster" and a "nightmare". A citizen stated the following during a testimony:

"The more I learn, the more I get taken aback. And yet, in reality, we are moving forward towards a possible environmental disaster, slowly but surely. The beautiful forests will be amputated, deforestation of a large part of the territory contiguous to the municipality will take place, animal species will be threatened, the air quality will deteriorate, the landscape will be dismantled in perpetuity by mountains of mining waste. Surface and underground water, a precious natural resource, will be polluted, contaminated for 100 years and more." (BAPE, Evening session of February 25, 2020, p. 36)

Questioning the moral basis of the project, testimonies from opponents furthermore questioned the morality of prioritizing temporary jobs and development over environmental protection of such an ecologically sensitive area. While several opponents emphasized that they understood the need for economic development in the region, they contended NMG's claim that the mine would create sustainable development in the region. Rather, they delegitimized the project by arguing that the mine would be an environmentally destructive and unsustainable solution to create temporary jobs and economic activity in the region. A citizen asked the following at the BAPE hearings: *"Destroy nature to create jobs, OK. But what will you do when there is no more nature? What will you do to generate economic activity?"* (BAPE, Afternoon session of February 26, 2020). The possible economic benefits were thus contrasted to the potential destruction of the environment, seen as the collective wealth of the region. A citizen presented this perspective in the following way:

"I'm not anti-capitalist, I'm not anti-globalization, I'm not against all forms of capital gains, and I am greatly for the advent of a societal project around which the city of Saint-Michel-des-Saints, its current workers and its future workers can build a real future. I am against an ephemeral solution with scandalous ecological impacts, whose health risks are tangible and notorious and whose fallout are most uncertain [...] This is why it is impossible for me to consider the Matawinie mining project as being a societal sustainable development project. The entire planet is turning to protect what people have most precious; is 160 jobs really the number magic to abandon our greatest collective wealth?" (BAPE, Evening Session February 25, 2020, p. 10. Highlight added)

Interestingly, these moralization strategies were also combined with **narrativization**, in which the opponents created predictive narratives about how the project would negatively impact the environment and living standards of the citizens if it was approved. The project was described as "an assault", "an environmental time bomb" and "sustainable destruction" to the region. A member of an environmental group, for example, described the project as *"... a major assault on the environment and well-being of the population."* (BAPE, February 25, Evening session, 2020). These narratives, thus, functioned to delegitimize NMG as a moral actor. Such moral questioning is furthermore seen in the following statement, made by a citizen during the public consultations:

"For me, the mining project is an easy and unhealthy solution to temporarily attract people in the area, to generate economic activity and fill classes in school. A mine is the destruction of an ecosystem. So we destroy all the mineral resources to extract a single resource, an ore, and then

we leave it to abandonment, and this, in a sustainable way, a hole and mountains of mine tailings? I call it a sustainable destruction project." (Citizen, BAPE, Afternoon session of February 26, 2020. Highlights added)

Another recurring theme in the testimonies of the opponents was the argument that the project did not have social acceptability. While these statements questioned the moral basis of the development of the project, opponents furthermore supported these claims by **rationalization**. This is seen, as they contested the survey presented by NMG, and thus their claims of having social acceptability, as they maintained that the methodology of the survey was biased. Rather than attesting to support for the project locally, they argued that the company was purposefully using manipulative strategies to present a more favorable picture of the situation. Opponents, thus, delegitimized the project through rationalization by using scientific and factual discourses. The following quote from the BAPE hearings represent this delegitimation strategy:

"The survey, a biased survey, disputed methodology, lack of transparency. It was clearly proven that there is not 80% support for the project like the promoter constantly disseminates everywhere. The fact remains that 2,500 vacationers have not been surveyed, 50% of the population. The Coalition deplores the manipulation of opinions and the obscurantism of the promoter." (Spokesperson, COPH, BAPE, Evening Session of February 25, 2020, p. 29. Highlights added)

Opponents of the Matawinie Project, thus, used rationalization as a strategy to legitimize their own claims and in turn delegitimize the project. They furthermore contested the estimates and data presented by NMG with regards to the financial viability of the project. More specifically, opponents argued that the company was overestimating financial estimates and underestimating the risks and costs associated with the project. This delegitimation strategy challenged the taken for granted assumption and 'objective facts' provided by NMG to legitimize the project, by presenting contradictory estimates for the graphite market. Opponents and critics relied on neoliberal discourse and technical language to criticize and thereby delegitimize the claims made by NMG. This rationalization strategy is seen in the following statement made by the environmental NGO *MiningWatch Canada*:

"The graphite market is currently saturated with enough known reserves to supply the demand for about 300 years at the current rate of production—a 323% increase over the last 10 years. In addition, a significantly increasing proportion of the electric vehicle battery market is shifting toward synthetic graphite produced from petroleum residues (part of a more efficient circular

economy). Synthetic graphite provides a more stable and reliable source of graphite (quality/quantity) and avoids social, environmental, and financial risks associated with mining. Second and third-generation batteries are also shifting toward solid-state technologies with metal anodes as a substitute for graphite. Nouveau Monde's feasibility study does not account for this shifting market, overestimates certain revenues, and conversely, underestimates many risks and costs." (Press release, MiningWatch Canada, March 1, 2020).

This delegitimation strategy was furthermore combined with **authorization** through reference to independent experts and analysis. This built credibility to the opponent's claims when delegitimizing the project and in turn, presented NMG as untrustworthy. Notably, questioning the 'objective fact' presented by NMG served as the foundation to question them as moral actors. This is seen in the following statement, made by a spokesperson for COPH during the BAPE hearings:

"According to experts, according to the expert Kuipers report, this is highly speculative, the financial assumptions of the mining company are optimistic and not very cautious. The project seems very vulnerable. He's a small player in the big leagues who control the graphite market. The costs are underestimated; for example, those for the management of 107 million tonnes of mining waste, the budget for the treatment of contaminated water is also an understated budget [...] Considering all these risks, which seem uncontrolled to the Coalition, we are currently wondering what the incontestable criteria demonstrated and corroborated are, which relentlessly demonstrate that it is a sustainable development project, from an economic, social and environmental point of view for the region." (Spokesperson for COPH, BAPE, Evening session of February 25, 2020, p. 27).

The millions of tons of tailings and mining waste that the mine would generate once in operation was furthermore a central issue mentioned by the opponents during the public hearings. This waste that notably also carried the risk of acidic contamination to the surroundings and especially the watershed. Here, the citizens furthermore delegitimized the company's technology and experimental cells through rationalization but contesting the 'objective facts' presented by the company through the use of factual and scientific discourse. This strategy furthermore supported the moral questioning of the company, especially with regards to the trustworthiness of its claims. This is seen in the following statement:

"The promoter wants to use an encapsulation process, codisposition of the residues 620 acidogenic, but it is an experimental process, not tested in actual application, which has been only developed in the laboratory. This was confirmed by the promoter himself since after having

declared during the hearings of the first phase that a dozen mines across the world were using this process, he was not able to cite a single one in his document tabled with the commission." (Secretary for APLT, BAPE, Morning Session of February 25, 2020, p. 18)

Opponents furthermore used exemplarity retrospective practices as a **normalization** strategy, particularly referring to the abandoned mine sites in the province that still contaminate the environment. By presenting these practices as normal, opponents created a picture of mining companies being environmentally reckless and in turn legitimized the claim that this would likely happen with this project. A citizen described the problem of management of mine waste and restoration of mine sites in the following way:

"I think it would be wrong, as a responsible citizen to trust the company entirely. We know the reputation of mining companies in Canada. We know how many disasters there have been. We know how much accumulated costs we have to clean up all the mess that the mining company did [...] It's a huge cost for the company, it's a huge cost for the environment, it's a huge cost for the government. In Quebec, the bill is at 1,2 billion dollars to clean up the mess that the companies left behind. And we are nowhere close to cleaning it up. We are just creating more mines to increase the bill. That's problem number one." (Citizen, Interview 1, March 5, 2020. Highlights added)

The rationalization, authorization, and normalization strategies were interestingly intertwined with moralization, as they reflected values of environmental discourse. Through the moral component in these strategies, opponents presented the company as a morally suspect actor, by questioning the objectivity of the facts and projections presented by the company. Rationalization, authorization, and normalization, in turn, functioned to add credibility to this claim and delegitimation of the company.

5.2.6.3 Municipality of Saint-Michel-des-Saints

During the second phase of the controversy, the Municipality of Saint-Michel-des-Saints legitimized their support for the project through **rationalization**. More specifically, the Mayor emphasized the much-needed benefits, such as jobs and economic development, that the mine would bring to the region. The Mayor furthermore supported this rationalization with **normalization**, by referencing the history of exploiting natural resources in Saint-Michel-des-Saints and highlighting other graphite mines that have contributed positively to the areas where they are located. He, thus, used these examples to legitimize the development of

a mine and predictions about the positive impacts that the Matawinie Project would have on the region. This is seen in the following statement: *"They have been there for 25 years and there have been no incidents. From my discussion with the municipality and the people of Lac des ïles, much more positive came from the mine than just gossip"* (Mayor, April 11, 2018, L'Action).

During the third phase of the controversy, the Municipality of Saint-Michel-des-Saints reiterated its **rationalization** strategies to legitimize their support for the project. Here, the Municipality emphasized the positive effects that the project would have on the region, especially with regards to job creation and economic development. The Municipality, thus, rationalized that welcoming the project would be in the best interest of the citizens due to opportunities associated with the project. A member of the City Council stated the following during the public hearings, exemplifying this rationalization:

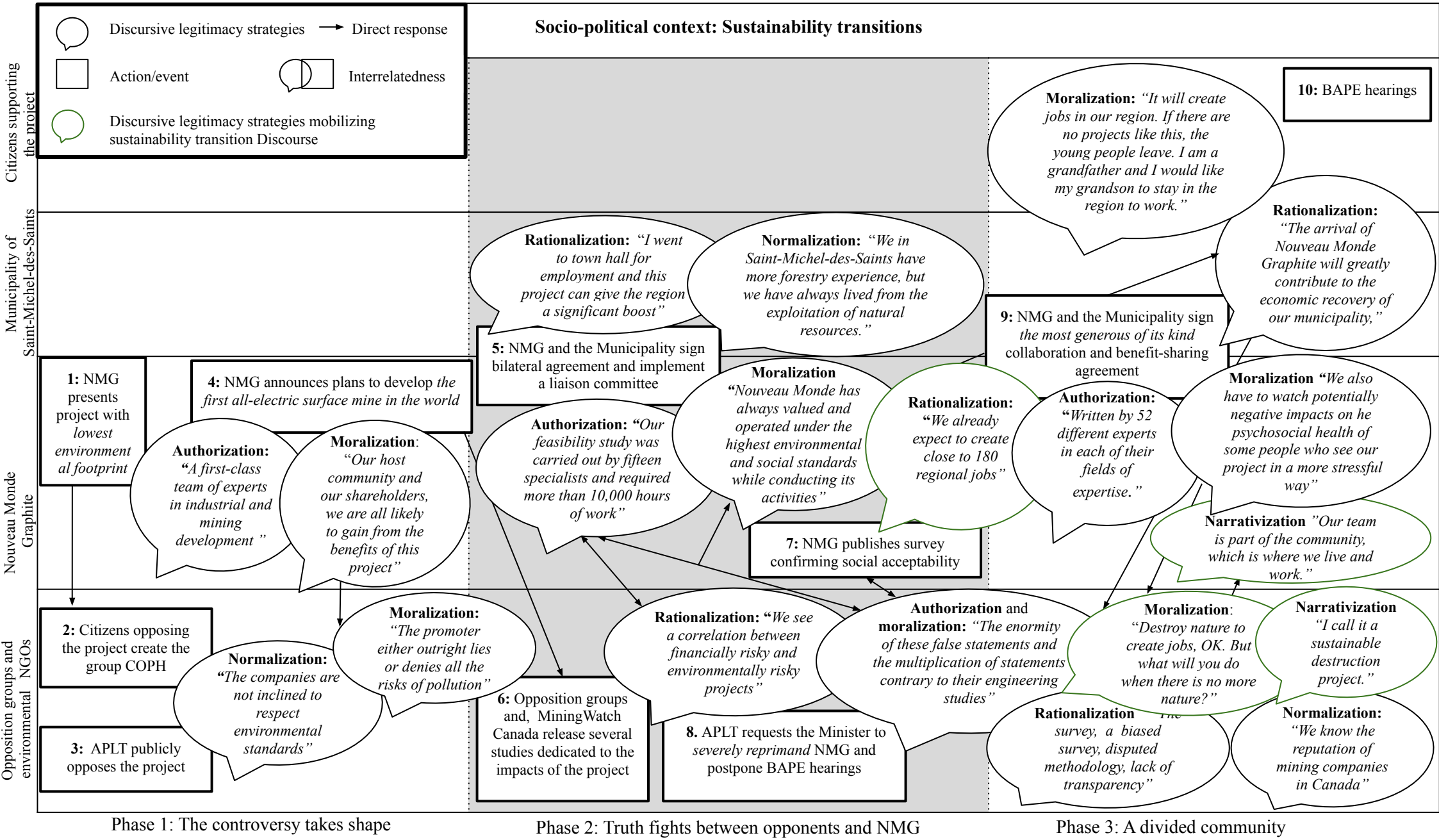
"The municipality and the citizens would greatly benefit from a new company that would settle in the region, provide some job stability and give a long-term boost to the local economy [...] The citizens of Saint-Michel-des-Saints will see their quality of life improve from year to year, and without being overtaxed. In other words, the monetary contribution of Nouveau Monde Graphite prevents over-indebtedness of the municipality." (Member of the City Council, BAPE, Afternoon Session of February 25, 2020, p. 77. Highlights added)

Hence, this rationalization was based on humanistic discourse, as the Municipality emphasized how it would benefit the quality of life for the local citizens. The Municipality furthermore added credibility to their statements about how the project would benefit the region by referring to legitimizing authorities such as analysis of statistics.

5.2.6.4 Summary actors' discursive legitimacy strategies in the controversy

Summarizing the above analysis, the mobilization of environmental discourse in moralization strategies was especially prevalent. More specially, NMG and the opposing groups consistently used this discursive legitimation strategy to (de)legitimize the project, which was often intertwined with other strategies to add credibility to their claims. Interestingly, during the second phase, the two actors especially relied on rationalization and authorization to add credibility to their claims and in turn contest the truth of opposing positions regarding the environmental impacts of the project. Figure 13, presented below, summarizes the different actors' discursive legitimacy strategies throughout the controversy.

Figure 13: Summary of discursive legitimacy strategies in the Matawinie controversy



5.3 Comparative analysis

In this section, the findings from the Authier and Matawinie controversies are compared and contrasted. More specifically, the different mobilizations of environmental discourse and thus perspectives on sustainability transition across the cases are presented. Then, the community relations of NMG and Sayona and the citizens' mobilization in the two cases are compared. Lastly, the political implications in the two cases are analyzed.

5.3.1 Sustainable development or sustainable destruction?

While it is interesting to examine the different discursive (de)legitimation strategies used in the two controversies, emphasizing the intertextual totality of legitimating discourse is additionally important. Intertextuality, located in the second dimension of Fairclough's framework, rests on the assumption that that discourses are interconnected, which is seen in the way different texts draw upon, combine and influence other texts and discourses (Genus, 2016) The findings in this research clearly show how the moralization of environmental discourse overrode other discourses used in the legitimation struggles in the controversies. As such, the discourse evolved into an established element of the majority of (de)legitimation strategies used in the two controversies

Interestingly, environmental discourse was mobilized quite differently by the various actors for (de)legitimation purposes across the cases. The mining companies and actors supporting the projects especially legitimized the mining developments by describing the projects as "sustainable development" for the regions and province. On the one hand, they focused on how the business models were developed as "sustainable", "carbon-neutral" and "environmentally friendly/responsible". Hence, this reduced the environmental footprints of the mines and even resulted in "negligible" environmental impacts on the local ecological areas. On the other hand, the promoters utilized environmental discourse to legitimize the projects by describing them as "contributing" to the "energy transition", "climate emergency" and "global battery/clean energy revolution" due to their production of battery metals. As such, the mining companies legitimized the project by associating them with 'positive' environmental actions and even framing them as necessary means to ultimately solve the climate crisis, especially through transportation electrification.

While the mining companies adopted moralization strategies to present themselves as environmentally conscious actors, these were often combined with rationalization and authorization to add credibility to these claims. Here, the companies often referred to their "innovative" technologies or "world-class" experts. Interestingly, the promoters furthermore mobilized environmental discourse to legitimize themselves by employing a type of *market-based transition*. Here, the companies emphasized the high demand for their products from actors within the industries of transportation electrification, e.g. Tesla. Furthermore, they rationalized that their "green" products would be attractive on the market and simultaneously contribute to improved environmental protection, as opposed to battery metals sources from other places.

While the mining companies emphasized the contribution of their products to transportation electrification and the energy transition, actors contesting the projects questioned the appropriateness of this solution, specifically with regards to environmental protection. These groups contrarily used environmental discourse to emphasize the destructive and unsustainable nature of the extraction of finite minerals, especially in ecologically sensitive areas. These actors thus mobilized expressions such as "sustainable destruction", "environmental time bomb" and "environmental disaster" to delegitimize the development of the projects and the companies' claims of sustainable development approaches. On the one hand, the mining projects were framed as environmentally "destructive" solutions to create temporary jobs in the area. On the other hand, they were described as an environmentally destructive solution to advance technologies in sustainability transitions that ought to be sustainable, particularly transportation electrification. As such, the actors regarded the transition towards transportation electrification as sustainable, while building it on these environmentally destructive projects would counteract this.

Here, delegitimation strategies, contesting the morality of the development of the project, were often supported by rationalization and authorization strategies. Thus, the contesting and opposing groups denounced the analysis and results presented by the companies, consequently delegitimizing their claims of environmental concerns and their role as institutional experts. Rather, they presented them as morally suspect actors, purposely hiding certain information from

the public or presenting it in a flattering way, especially with regards to environmental protection, e.g. through greenwashing. In fact, they accused the companies of "leveraging" on the climate crisis to develop these profitable but environmentally destructive projects. Contesting groups in turn relied on their own experts and analysis to add credibility to their own claims to legitimacy.

Table 7: Perspectives on sustainability transitions

Sustainable development - Promoters and proponents of the projects	**Sustainable destruction** - Citizens and groups opposing and contesting the projects
"Sustainable development and the environment have been at the forefront of our project development plans since the project began and we are committed to producing environmentally friendly graphite products that utilize the green hydroelectric and environmentally responsible mining techniques. Our green purification process uses renewable hydroelectricity from Quebec, which allows Nouveau Monde, the lithium-ion battery industry and Quebec to shine through these responsible and sustainable innovations." (Press release from NMG, August 20, 2019. Highlights added) *"We also often forget to talk about the lithium contribution of the Authier Project, which the region will make in the fight against climate change"* (CEO of Sayona, interview Radio Canada, January 30, 2020. Highlight added) *"As a company committed to sustainable development, we look forward to making an important contribution to Quebec's energy future through the development of our lithium projects."* (CEO of Sayona, press release, November 21, 2019. Highlights added)	*"I am against an ephemeral solution with scandalous ecological impacts, whose health risks are tangible and notorious and whose fallout are most uncertain [...] This is why it is impossible for me to consider the Matawinie mining project as being a societal sustainable development project. The entire planet is turning to protect what people have most precious; is 160 jobs really the number magic to abandon our greatest collective wealth?"* (Local citizen in the Matawinie controversy, BAPE, Evening Session February 25, 2020, p. 10. Highlights added) *"For me, the mining project is an easy and unhealthy solution to temporarily attract people in the area, to generate economic activity and fill classes in school. A mine is the destruction of an ecosystem. So we destroy all the mineral resources to extract a single resource, an ore, and then we leave it to abandonment, and this, in a sustainable way, a hole and mountains of mine tailings? I call it a sustainable destruction project."* (Local citizen in the Matawinie controversy, BAPE, Afternoon session of February 26, 2020. Highlights added)

5.3.2 Community relations strategies: Defensive versus engagement

Comparing and contrasting the community engagement strategies of Sayona and NMG reveal interesting differences, which affected their legitimacy and how the dynamics of the two controversies evolved differently. Sayona did, especially in the first phases of the Authier controversy, distance themselves from the local communities. This is particularly seen in their attempts to disregard the social movement contesting their choice not to undergo a BAPE assessment and delegitimize their concerns about the environmental risks associated with the project. As such, the company reacted defensively to critique, mobilizing expressions such as "this attitude is all the more unfair" and *"*without ever providing any corroborating fact for the hypothesis" to delegitimize the claims and concerns of local citizens, who were also told to "accept the facts and science" presented by the company. Moreover, Sayona delegitimized the social movement by stating that these citizens "stirred public opinion" and were in no way representative of the local community as a whole. While the company highlighted the economic benefits that the project would bring to the region, it remained silent with regards to the emerging social movement's demand for the project to undergo a BAPE assessment. The company, thus, showed that it was not interested in taking contesting claims into account, emphasizing the appropriateness of their own approach and choices.

Facing substantial criticism during the culmination of the controversy, the rhetoric and focus of Sayona's community relations strategy evolved in the last phases of the controversy. The company interestingly began focusing more on their community relations, aligning more with the approach of NMG. This is seen by how Sayona transferred their head office to La Motte and reiterated that they were "getting involved with the community" and "enhancing community engagement activities" due to the recognition that "no mining project can be successful without having earned a social license to operate". As such, the company's rhetoric evolved considerably from prior defensive responses and delegitimation of contesting groups, to acknowledging the importance of collaborating and support from local communities. Meanwhile, however, the company refused to voluntarily undergo a BAPE despite the strong opposition against this choice. This unresponsiveness, and their change of strategy late in the controversy, emphasizing a willingness to collaborate, thereby created a sense of hypocrisy.

Indeed, NMG adopted a considerably different approach towards the local communities during the Matawinie controversy. More specifically, the company maintained its commitment to and respect for local citizens in the development of their project. This is seen, as NMG mobilized expressions such as "ensure harmonization with the host environment, its identity, its characteristics", "respects the host community" and "our social responsibility" to describe their business model and plans for the project. Furthermore, the use of expressions such as "our host community" and "we", implied a taken-for-grantedness of the togetherness of the company and the local community. NMG moreover emphasized the importance of learning from and collaborating with local stakeholders. More specifically, the company argued that the local community could contribute to jointly create the best possible project. This is amongst others, seen in cooperation and agreements, where the company described it as an "honor" and "pride" to develop partnership with local stakeholders.

One critical difference between the two mining companies' community relations strategies was furthermore their contradictory attitudes towards the BAPE process. On the one hand, NMG expressed a willingness to collaborate with the local community through this process, referring to it as an "exceptional democratic participation structure". Sayona, on the other hand, evidently refused to voluntarily go through the BAPE process, despite strong regional opposition against this choice. As such, NMG employed a more proactive community engagement strategy, whereas Sayona was more reactive and defensive in its community relations.

Table 8: Community relations discourse

Nouveau Monde Graphite	Sayona Mining
"I understand them being here and being worried, because it is a mine that will open next to their chalets. It wasn't the deal when they bought it. Our social responsibility is to serve as a buffer. That is why we acquire the properties of worried people." (Shareholders meeting, June 21, 2019. Highlights added).	*"This attitude is all the more unfair, as the company behaves responsibly and the project is based on rigorous studies carried out by experienced and professional specialists."* (Vice President of Sayona, November 21, 2018. Highlights added) *"A group of citizens formed and set themselves the task of preserving the integrity of the*

"It is an honor for our team to develop this graphite mine project in partnership with all local players and stakeholders." (President and CEO of NMG, Press release, October 25, 2019. Highlights added) *"From the start of the exploration work, Nouveau Monde has demonstrated a strong commitment to the community through open dialogue and an intent to maximize spinoffs for Saint-Michel-des-Saints and Upper Matawinie. The cooperation and benefit-sharing agreement is therefore based on requests expressed by local stakeholders, on sustainable development principles..."* (Press release, January 24, 2020. Highlights added. Highlights added) *"The BAPE's review of our project will allow us to demonstrate the soundness of our approach and the seriousness of our commitment to this community, which is our community too."* (CEO and President of NMG, Press release, December 17, 2019. Highlights added)	*Saint-Esker Mathieu-Berry. This citizens committee for the protection of the esker is interested in a mining project outside the esker's limits without paying attention to all the current activities going on the esker. This group, well organized, has stirred public opinion by loudly and clearly claiming that the mining project put the esker's drinking water at risk without ever providing any corroborating fact for the hypothesis."* (Public consultation report, October 2, 2018. Highlights added) *"Sayona to step up engagement efforts following Quebec regulatory decision [...] Sayona continues to consult closely with key stakeholders with the aim of ensuring a transparent and timely approval process that satisfies the expectations of the community, investors and other stakeholders key to its development. No mining project can be successful without having earned a social license to operate and that is exactly what we are aiming to achieve."* (Managing Director, Press release, May 27, 2019. Highlights added)

5.3.3 Community mobilization

Indeed, actors struggling for legitimacy in the two controversies mobilized in different ways. In the Authier controversy, citizens and groups contesting the project mobilized forcefully against Sayona's unwillingness to undergo a BAPE assessment. This choice was described as "bad faith", "suspicious", "a short cut" and "ill will", thereby creating an overall perception that the company was illegitimate and untrustworthy as an environmentally conscious actor. This collectively perceived wrongdoing by the company enabled people to find a joint discourse and consequently create a social movement of various actors, agreeing on the misbehavior of the company. Interestingly, they were not all collectively opposing the project, rather, they mobilized due to a "bad" and "scandalous" decision made by the company.

Citizens mobilization against the development of the Matawinie project was comparatively less forceful, as a considerable amount of local stakeholders believed that the

project would be beneficial for the region. Here, citizens were extremely divided on the issue and struggles revolved to a larger degree around the appropriateness of having a mining project in the area, as opposed to the wrongdoing of the company. NMG, thus, gained more support locally as a morally legitimate actor. Also, it should be noted how contesting groups in the Authier controversy delegitimized Sayona by emphasizing the fact that the company was "international", "multinational" and "Australian". They consequently contested the idea of an outside company, "in pursuit of their own interests" taking advantage of "our" resources. This, thus, clearly attests to the separation between the company and the local groups contesting the project. This, however, was not an issue for NMG, that as a local company from Quebec was more successful in interacting with local stakeholders.

Lastly, it is interesting to note that Authier controversy took place in a mining region, thus making the citizens more familiar with extractive projects. The Matawinie project, on the other hand, is the first mining project being developed in the region, known for its recreational tourism. As such, the comparatively more forceful community mobilization in the Authier controversy may also have materialized due to the citizens' experience in dealing with extractive companies in the past. Lack of knowledge and know-how may contrarily have contributed to the community mobilization in the Matawinie controversy to be less forceful.

5.3.4 (Not) taking a stance?

The debates in the two controversies not only revolved around the environmental protection of the mining companies but also the elected officials' credibility on environmental issues. Common across both cases is the contesting groups' dissatisfaction with the way in which elected officials, both locally and provincially, handled the controversies. Indeed, Government officials were expected to show commitment to environmental protection and defend the interests of the citizens. Opponents in the Matawinie controversy were dissatisfied with the "uncritical" support for the project, stating that the Municipality valued economic development over environmental protection. The citizens movement in the Sayona controversy furthermore called the elected officials "undemocratic", claiming they were not listening to the opinions of the people. Notably, the social movement was especially contesting the consecutive Ministers'

unwillingness to use their discretionary power to submit the project to the independent environmental BAPE assessment.

While actors in the controversies were dissatisfied with the decisions of the elected officials, they also delegitimized the officials in situations where they chose not to take a stance in the controversies or did not do so in a timely manner. Here, the elected officials publicly stated that they were not equipped and able to take a position and thus actively chose to remain neutral. In other instances, they simply did not want to comment or publicly take a stance on the subject matter. Their neutrality, or unwillingness to take a position, was by many citizens and opposition politicians seen as a failed test of their environmental credibility because taking a stance would be essential to show their commitment to environmental protection.

6. Discussion and conclusion

This chapter presents the discussion and conclusion of this thesis. Firstly, theoretical implications are brought forth. Then, the practical implications suggested by this work are synthesized. Lastly, the limitations of this research are elaborated and suggestions for directions for future research presented.

6.1 Theoretical implications

This research draws on the framework of discursive legitimation strategies by Vaara et al. (2006): normalization, authorization, rationalization, moralization, and narrativization. This thesis supports their categorization, and it confirms the interdependent nature of these strategies and their utilization for (de)legitimation purposes. Interestingly, moralization was a dominant and default strategy, in this case, often intertwined with other legitimation strategies in the two controversies. In this case, moralization strategies were openly moralistic as they referred to specific values of environmental discourse, which consequently overrode other moralizations in the case. Moralization strategies were thus quite explicit, contrary to the work of Varra et al. (2006), where the analyzed texts were rarely openly moralistic. Hence, the controversies were largely shaped by the contesting moral perceptions on what constitutes environmental protection and thus how to promote fair and just sustainability transitions.

This thesis furthermore contributes to this framework in developing a new subcategory. Strategic neutrality occurred only a few times in the data, however, due to its significance for the dynamics in the controversy, it is interesting to highlight. In the case, this discursive legitimacy strategy was identified in situations where Government officials were expected to publicly take a stance on an issue but did not do so. It was seen as a subcategory within rationalization, as the actors were rationalizing not taking a stance and consequently remaining neutral. Here, elected officials mobilized expressions such as “it is difficult to take a position” and “[the municipality of La Motte] wishes to reiterate its neutrality” to legitimize that they “could not” take a position and thus assumed this strategic neutrality. This legitimation strategy was furthermore identified as a subcategory in authorization. Here, actors deauthorized their own position in the case by being on the fence and deliberately choosing not to do anything, despite pressure and expectations to do so. To this end, the actors mobilized expressions such as “it is not for us to decide” or even abstaining from making any comments when asked to take a stance. As such, within this strategic neutrality,

the actors were using authorization in the opposite way than what is seen in the conceptual framework of Vaara et al. (2006).

While this strategy seemed to be temporary at best and was scrutinized and delegitimized by other actors in the controversy, it nevertheless complements the framework of discursive legitimation strategies by Vaara et al. (2006). Hence, because it offers insights into how actors legitimize themselves when choosing to remain neutral, which is not usually discussed with this framework. Indeed it shows how actors deauthorize themselves and attempt to rationalize not taking a stance to legitimize themselves. This is especially interesting to apply in sustainability discussions because governments are central drivers in change and setting the environmental agenda, as discussed in previous literature (McDonald & Young, 2012; Köhler et al., 2019; Scoones, 2016; Markard, 2017). Sustainability transitions literature, especially, emphasizes the importance of Government interaction and guidance in these transitions, as they are purposive and guided by political goals (Smith et al., 2005; Markard, 2017; Köhler et al., 2019). Political unwillingness to interfere may, thus, inadvertently affect countries' or provinces' ability to achieve this shift towards sustainable modes of production.

This research furthermore adds to the scarce literature regarding legitimacy-seeking concerns of corporations in controversial industries and how organizational strategies affect the outcome of legitimacy (Reast et al., 2013). By assuming a controversy-centered approach, this research moved beyond the more static and unilateral approach of SLO and organizational legitimacy literature (Gond et al., 2016; Scherer et al., 2013; Gehman et al, 2017). Rather, legitimacy is seen as multidirectional, reflecting the different actors' evaluations of each other (Gehman et al., 2017). Societal expectations are consequently not seen as an output of a specific organizational setting but rather a process in which different actors jointly shape expectations. Extant literature describes these controversies as struggles that center around what the appropriate roles and relationships between corporations, communities, and nature ought to be (Livesey, 2001; Hajer, 1997; Scherer et al., 2013; Reast et al., 2013). This case, thus, adds to this literature by examining societal expectations to governments' role as well, especially in sustainability discussions where they remain neutral.

6.2 Practical implications

This case suggests multiple practical implications for the industry, Government, and frontline communities involved in sustainability controversies. This case notably suggests that mining companies, or companies in other controversial industries, cannot gain legitimacy

and consequently SLO when they are unwilling to engage in dialogue and compromise with other stakeholders. This is seen in the case, as Sayona was delegitimized due to their choice of deliberately avoiding to undergo a BAPE assessment and refusing to change the decision or even engage in conversation about it. As pointed out by multiple work, mining companies engaged in sustainability controversies will benefit from engaging in two-way communication, constructive dialogues, and collaborative decision making as part of the project development and conflict management (Kemp et al., 2011; Du and Viera, 2012). Failing to properly engage with local stakeholders will in turn exacerbate the likelihood of conflict and escalations of these, as suggested in this case (Kemp et al., 2011).

While this case displays the importance of relying on discourses that resonate in society to gain legitimacy, it furthermore shows that talking without appropriate action can seem hypocritical. More specifically, by relying especially on environmental discourse, the companies, in this case, were accused of greenwashing and leveraging on the climate crisis to legitimize their operations. Their actions, expected impacts, and mitigating measures were scrutinized and oftentimes seen as incompatible with the green narratives created by the companies. It is consequently important for mining companies to consider how their communications to the local communities align with the actual impacts and risks of their operations. Hence, overly emphasizing the positive outcome of their operations and thus taking a pragmatic approach to selling their CSR and community relations strategies will negatively affect local communities' perceptions of the company, create credibility issues and thus hinder the companies from getting the maximum positive outcome of their operations (Jenkins, 2008; Du & Vieira, 2008; Kemp & Owen, 2013).

This case furthermore suggests practical implications for governments, who often assume a contradictory role of promoting economic development while functioning as environmental regulators (Novek & Kampen, 1992). Especially the new sub-category of legitimacy strategies, strategic neutrality, contributes insights into the risks and problems of not taking a stance on environmental issues. Here, elected officials that remained neutral or were on the fence in these cases were delegitimized and deemed not credible on their democratic responsibilities and environmental commitments. This is especially problematic in sustainability transitions controversies where governments assume a central role and may even contribute to the controversy (Reed, 2002; Novek & Kampen, 1992). These risks are for example seen in Chile, where local mobilizations and social activists have consistently called for the Government to re-nationalize lithium production due to excessive water use caused by expanding production in the country (Liu & Agusdinata, 2020). While the expansion of

lithium mining has become a national issue with considerable citizens awareness and movements (Liu & Agusdinata, 2020), the Government's decision not to take a stance has substantial consequences.

The case also suggests practical implications for local communities engaged in sustainability controversies due to mining developments in their areas. As the case emphasizes, the complexity and technical nature of mining operations makes it hard for regular citizens to fully comprehend the risks and implications associated with a mining project, as well as properly question the reports and analysis presented by the mining companies. This is especially critical, as local communities are increasingly concerned with environmental protection, while the environmental impacts and risks of mining developments are hard to predict and comprehend. It is consequently important for local communities to seek information and 'self-educate', as seen across the two controversies. This can include seeking expert opinions and analysis, advice and support from NGOs, and generally keeping informed about the developments in the projects. Furthermore, it is beneficial for local communities to engage the mining companies to facilitate dialogue, address power imbalances and potentially partake in designing the mechanisms for the company/community relations (Kempt et al., 2011).

6.3 Limitations and future research

While the research design of this study inevitably suggests limitations, these furthermore provide direction for future avenues of research. Firstly, the qualitative nature of this research makes it contextual and conclusions drawn from this study may not be transferable to other cases. This is furthermore emphasized by the rather "unique" and "extreme" nature of this case (Yin, 1994). Generalizability is furthermore limited by the defined time scope under which the two embedded controversies were studied. Future research could, thus, extend the knowledge of this case and improve the external validity by conducting case studies on similar sustainability controversies placed in different contextual settings. A multi-case study, for example, will enable replication of analytical generalizations and ultimately generalize those into "theory" (Yin, 1994). This in turn does not only involve academic theories but also the contribution of practical implications relevant for actors involved in sustainability transitions controversies (Yin, 1994). It could for example be interesting to extend this research to the controversy in Chile, where national movements are calling for the extensive expansion of lithium mining to be re-nationalized due to the rapid water depletion it is causing (Liu & Agusdinata, 2020).

Moreover, as much of the secondary text used in this study was originally written in French and subsequently translated and analyzed in English, meanings and interpretations may have gotten lost or been misunderstood. Secondary text material from the media, especially news articles, may be biased, as journalists shape and edit legitimating texts in their reproductions of events (Joutsenvirta & Vaara, 2009). As such, the subsequent analysis of discourse from these texts is subjected to journalists' interpretations and selective descriptions. Lastly, biases may also have occurred in the semi-structured interviews. Besides perceptual biases, informants involved in the controversies may also have exacerbated accusations and perceptions of events and other actors. More interviews with informants could consequently be beneficial. To triangulate the data further and thus increase the validity of analytical findings, future research could indeed benefit from using observation data. Firstly because it can help verify what is learned from other sources of data and ultimately provide insights into how actors engage with each other and enable rich and more detailed accounts of social settings and events (Kawulich, 2012). This will, thus, help improve interpretations and gain more comprehensive descriptions of the cases.

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Appendix

Appendix 1: Interview guides

ADMINISTRATIVE ITEMS

Interviewee: (Position and/or title as applicable by desired level of confidentiality):

_____

If consent is received, the following lines are to be completed:

Date of Interview: _____

Location of Interview: _____

Time of Interview: Start: _____ / End: _____

INTERVIEW STRUCTURE

- Semi-structured interview format
- One-on-One (individual) interview
- Questions will be focused on the topic of mining projects of 'battery metals' in Quebec but will allow for discussion and flexible follow-on questions to go more in-depth into topic

INTERVIEW QUESTIONS - COMMUNITY MEMBERS

1. What is your relation to the mining operations/developments taking place?
2. What do you know about the project?
3. How did you get that information / is there any information about the project that you wish to get but have been unable to get?
4. Has the mining company reached out to the community in any form? If yes, please describe that communication.
5. How is your community reacting to the mining project?
6. How does your community organize itself in response to the development of the project? Can you give examples?

7. In your opinion, what are the most important things that must be in place in order for this project to carry on/begin?
8. What are your main concerns about the mining project taking place in your local area?
9. How do you expect/is the project affecting the local area and community?
10. In your opinion, what are the main challenges of the mining project to you and your community?
11. What positive things can/is the project bringing to your local area?

12. What do you think the role of the provincial/ federal government is in this project? What should it be?
13. What do you think of the responsible sourcing regulations in place for the mining sector? Can you please share your thoughts on the role of voluntary norms versus mandatory regulations.
14. Do you know anything about the Government of Quebec's plans to source the metals used for electric vehicles?
15. If yes, do you know how it relates to the mining project taking place in your area?
16. What are the arguments that the company and Government use to get support for the project?
17. Do you feel that your opinions about the mining project have been heard?
18. How do you see the balance of power between the Government, the mining company and your community?
19. Do you see any tradeoffs between the mining developments and the desire for sustainable development/the green transition?

INTERVIEW QUESTIONS - SUBJECT MATTER 'EXPERTS'

1. Please describe your work, organization and how it relates to mining?
2. What is your expertise in the industry?
3. What are your expectations about the new mining developments for 'battery metals' in the province?
4. What are the implications (social, environmental, economic) of the new mining projects in the province?
5. What are the main challenges associated with these new mining projects?
6. What are the opportunities for Quebec in relation to the increased demand for lithium and other 'battery metals' for electric vehicles?
7. Do you find that the regulation on mining in Quebec is sufficient/appropriate? Can you give examples?
8. What is the role of the Government in relation to new mining developments? In your opinion, what should it be?
9. What is the role of NGOs in relation to mining operations in Quebec?
10. In your opinion, what should the mining company do to ensure that the metals are sourced responsibly?
11. How do you see the balance of power between the Government, mining company and the affected communities?
12. In your opinion, what is necessary to ensure that the projects are as sustainable as possible?
13. How do we access which mineral deposits should be mined and which should be left in the ground?
14. What do you think of the responsible sourcing regulations in place for the mining sector? Can you please share your thoughts on the role of voluntary norms versus mandatory regulations.
15. What are your thoughts/opinion on the Government's plans of transportation electrification?
16. Do you see any tradeoffs between the mining developments and the desire for sustainable development/the green transition?
17. What are your thoughts on the justification for these new developments from the companies and the Government?
18. Do you see any future consequences of the surge in new mining developments?

INTERVIEW QUESTIONS - INDUSTRY REPRESENTATIVES

1. Can you please describe your expertise in the industry?
2. Can you please describe the company and your x project?
3. What are your expectations about the project?
4. What are the main challenges associated with developing this project?
5. Which stakeholders do you work with when developing your project? Can you give examples of how you work together?
6. What are the implications (social, environmental, economic) of your project for the local communities and environment?
7. How do you work with the local communities? Can you give your thoughts on the issue of 'social acceptability'?
8. Which opportunities does this project give the local communities?
9. What are your thoughts/opinion on the Government's plans of transportation electrification?
10. How do you work with the Government in realizing your project?
11. In your opinion, what is your company's role in the transition to a low-carbon future?
12. How do you ensure and assess the sustainability of your projects? Please give your thoughts on the necessity of independent assessments such as BAPE.
13. In your opinion, how do we access which mineral deposits should be mined and which should be left in the ground?
14. Does this project differentiate itself from other mining projects your company has? Please explain why.
15. Do you see any particular advantages/challenges with the location of your project being in Quebec?
16. What does the future hold for Quebec in terms of the new lithium-ion battery value chain?

INTERVIEW QUESTIONS - GOVERNMENT REPRESENTATIVES

1. Can you please describe your expertise and the work that your ministry does?
2. How does it relate to the mining industry?
3. What are your thoughts on the Government's Energy Policy and plans of transportation electrification?
4. What are your expectations about the new mining developments for 'battery metals'?
5. What are the main challenges associated with developing these projects?
6. What are the implications (social, environmental, economic) of these projects for the local communities and the environment?
7. In your opinion, what is necessary to ensure that the projects are as sustainable as possible?
8. Which stakeholders does the Government work with in developing these projects? Could you give examples of how you interact?

9. How does the Government hold mining companies accountable for the impacts that they have on local communities and the environment? Before, during and after operations
10. What do you think of the responsible sourcing regulations in place for the mining sector? Can you please share your thoughts on the role of voluntary norms versus mandatory regulations.
11. What is currently the role and positioning of the federal and provincial Governments in relation to new mining developments? In your opinion, what should it be?

12. In your opinion, how do we access which mineral deposits should be mined and which should be left in the ground? (areas incompatible with mining, unviable projects)
13. What are the tradeoffs between the mining developments (environmental protection) and the desire for sustainable development? (concerns for the environment versus wealth creation)
14. What are the future consequences of the surge in new mining developments?
15. What does the future hold for Quebec in terms of the new lithium-ion battery value chain?
16. Do you have any other thoughts on the subject that you would like to share?

Appendix 3: The Mining Sequence

Mining consists of continuum of steps in its development - the commencing step of prospecting and staking of the mineral claim; evaluation and exploration of the mineral potential of the claim; the mine construction and development; mine operation; mine closure and subsequent care of the site - the so called *mining sequence* (Kuyek, 2019).

Staking a claim

The federal Government of Canada and the provincial Governments continually undertake geological surveys of the land in Canada. These surveys consist of maps and reports of the mineralogic and geologic strata in their jurisdiction and discloses the areas where former exploration has taken place (Kuyek, 2019). Mining prospectors rely on these geological surveys to locate areas that contain ore bodies where mining could be profitable. From these insights, the prospectors then claim an area and consequently gain the exclusive right to search for any minerals in the area and furthermore develop on discoveries (Kuyek, 2019. These claims are also referred to as exclusive exploration rights (MERN, 2005a). Under the Mining Act, if the land where the claim is made is private, the prospector or the claims holder, must obtain a written authorization from the landowner before conducting exploration on the land (MERN, 2005a). Furthermore, the prospector must inform the Municipality and owner of their claim no more than 60 days after it is registered and notify them 30 days before the work begins (MERN, 2005a).

Exploration

The exploration step in the mining sequences covers a range of activities and objectives. The work carried out varies in accordance with the mineral being sought after (Natural Resources Canada, 2019). Natural Resources Canada describes the step as: *"Mineral exploration is the search for materials in the earth's crust that appear in high enough concentrations and amounts to be extracted and processed for profit."* (Natural Resources Canada, 2019). In most parts of Canada, the prospector must obtain an exploration and land use permit in order to be able to do mineral exploration on their claim. However, in Quebec, despite having rules

concerning surface damage around the early exploration, prospectors do not need to have a permit until granting the mining lease (Kuyek, 2019).

All geochemical and geophysical surveys are reviewed and helicopter surveys can furthermore be done in order to search for visible mineralization and magnetic fields in the claim area. The exploration furthermore involves soil sampling for metals, made by drilling holes and evaluating the samples of small rock believed to be representative for the area. The next step of the exploration is drilling core samples, this is done if the initial step were promising. Usually, the drill goes thousands of meters through the solid rock to produce the necessary rock samples and eventually help create a three-dimensional map of the ore body examined. At this point in the exploration, much equipment and workers have been brought to the site, requiring work camps and probably infrastructure such as ATV trails, roads, stream crossings or even airstrips (Kuyek, 2019).

Given the above mentioned steps prove successful and the exploration looks promising, there is essentially built a small test mine of the claim area. Here, bulk sampling of one thousand tons or more from the small open put created is taken. Test milling furthermore takes place in order to analyse and determine the economic feasibility of the mine. Before engaging in advanced explorations of the claim area, most companies will convert their mining claims into mining leases. Leases in Canada are usually more than 21 years, and is a more secure form of tenure than the mining claim is, as they permit the full exploration of the resource (Kuyek 2019; Abdel-Barr & MacMillan, 2019). In Quebec, the Ministère de l'Energie et des Ressources naturelle states that anyone who holds a claim can obtain a mining lease. They propose the toughest rules in Canada, requiring a number of administrative information and proof that the deposit on the claim area is minable (Kuyek, 2019; MERN, 2005b).

The last and most advanced exploration stages, the mining company further explores the questions of the mine’s profitability through pre-feasibility studies or feasibility studies to determine whether to bring the deposit into production (Kuyek, 2019; MERN, 2005c). Here, the company analyzes the risks involved in the project - technical, economic, environmental, social, political and financial. The feasibility study furthermore entails market studies. This study is essential for the company to attract backers that will finance the project and organize its

financing for the project (Kuyek 2019). Crucial, as solely the costs of mine development can reach billions of dollars (Kuyek 2019; MERN, 2005c). Extensive engineering studies are furthermore conducted, detailing what is needed to build the mine, and contain conclusions about optimal design and estimated cost such as: equipment required and design of waste management system (Kuyek, 2019; MERN, 2005c). Depending on the location, plans can also include design plans for new roads, diesel farms and power lines (Kuyek, 2019).

Before starting the construction and development of the mine, the mining company is required to obtain a number of permits for their mining proposal. These permits cover issues such as water taking, road building, waste disposal and power supply. The mining proposal must consequently undergo an environmental assessment in order to apply for these permits. These assessments include guideline environmental studies and in some cases, consultation with any affected Indigenous communities (Kuyek, 2019). In Quebec, mining companies with a daily extraction above 2,000 tonnes have to undergo an environmental assessment by the independent body, the Bureau d'audiences publiques sur l'environnement (BAPE). These projects, which potentially could impact the environment significantly and cause public concern, thus have to undergo certain procedures including environmental analysis and public consultations (MELCC, 2020).

Construction and development

When it has been established that the mining proposal can be profitable, the development of the mine can proceed. The construction of the mine is a massive undertaking that lasts years and costs large amounts of money, before any revenue has been made from the mine. This stage in the mining sequence is furthermore the most labor intensive that creates many jobs and thus attracts a lot of workers to the area. This in turn, affects the surrounding areas along with the dust, noise and increased traffic (Kuyek, 2019). The target of this stage in the mining sequence is to achieve commercial operating conditions (MERN, 2005c)

Operation

The primary activities of the operations in the mining sequence are ore extraction and processing as well as marketing of the product that is extracted (MERN, 2020). Mine operations are however composed of a large number of different activities that continue throughout the life of the mine. These include purchase and maintenance of equipment, production management to improve quality, administration, employee hiring, safety and training and investment and stakeholder activities to mention a few (Kuyek, 2019; MERN, 2020). These do not even constitute the actual extraction of the desired metal. These activities include beneficiation (crushing and grinding ore in mills), ore separation in flotation tanks and blasting. These activities however, create such substantial amounts of waste that the management of the mine waste is a large part of the mining operations (Kuyek, 2019). This starts with the initial waste rock that is created when large volumes of rock are removed in order to get to the desired ore body. Once the ore is extracted it enters the processing stage. Here it is crushed and ground through a mill and separated into two parts. The concentrate containing the valued metal is further refined and the remaining ore body that has been rejected, called tailings, has to be "disposed" of or managed as well (Kuyek, 2019).

Additionally, while mining operations commence and through the operations, exploration continues on the surrounding areas, searching for more ore bodies that can ultimately expand the mine (Kuyek, 2019). As such, because the general goal of the mining company during the stage of operations is to get return on the investments of the project and reach full extraction of the mineral deposit (MERN, 2020).

Closure

Once the economically viable ore body has been depleted, the mine has to be closed. This is a complex stage in the mining sequence and the process of closing down the mine is both lengthy and costly. Structures that were built during the construction of the mine are removed, buildings demolished and openings made in the surface of the earth are capped. Revegetation to reclaim the area by establishing vegetation over the area - the mine site, the waste rock piles and mine tailing. The area can also be reclaimed by constructing ponds, ditches, dikes and wetlands on the area (Kuyek, 2019). However, the results of the closure are often uncertain and require

long-term monitoring to ensure that the efforts are successful and that there has not arisen any new environmental issues after the closure of the mine. Prior to construction and development of the mine, the mining company has to submit a mine-closure plan to the Government that must be approved. This plan must detail that the company has the finances to complete this step and also a detailing of the cleanup requirements. Quebec has the most effective regulations concerning mine closure in Canada (Kuyek, 2019).

Continuous care

After the various activities of closing down the mine has taken place it enters into the last stage of the mining sequence - perpetual care. This entails that the closed mining site must be cared for forever or just for the foreseeable future. As such, because concerns must be monitored to mitigate the effects of the mine. This could be concerns for structural stability, a need for continuous water treatment and identification of merging environmental issues on the site created due to prior steps in the mining sequence. However, as there has not been consistently implemented regulation on perpetual care of mining sites, there are an estimated ten thousand abandoned mines in Canada. As such, these areas can create problems afterwards the closure of the mines that have simply been abandoned (Kuyek, 2019).

In Quebec, mining companies must have a rehabilitation and restoration plan for the mine site approved by MERN before they are granted a mining lease. Moreover, the companies must deposit a financial guarantee intended to cover the costs of all the activities associated with restoring the mine site to an acceptable condition after the mine has closed (MERN, 2020)