

**TRADE ASSOCIATIONS AND THE STRATEGIC FRAMING OF CHANGE IN CONTESTED
ISSUE ORGANIZATIONAL FIELDS: THE EVOLUTION OF SUSTAINABILITY IN THE
CANADIAN MINING INDUSTRY, 1993 - 2013**

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A dissertation submitted to the Faculty of Graduate Studies
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

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February 2016
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ABSTRACT

This dissertation examines the role of intermediary organizations in processes of change in organizational fields defined by contested issues. Drawing from a 20 year longitudinal study of the evolution of sustainability in Canadian Mining, I demonstrate how trade associations—which occupy an intermediary position between incumbents and challengers in a field—engage in the strategic framing of field-level change through interactions with both internal (incumbent) and external (challenger) audiences. Using a variety of data sources including 102 interviews with key actors in the field and the complete internal archives of the national mining trade association between 1993 and 2013, I demonstrate the key role of *bridging work* in the establishment and reinforcement of strategic frames. The model I present describes the process whereby internal and external contestation reveals conceptual divides which triggers bridging work on the part of intermediary organizations. I also demonstrate how once changes are introduced to the field, contradictions in strategic frames may emerge which triggers subsequent contestation and bridging work. In addition to this qualitative study, I also develop a conceptual framework which aims to enhance our understanding of when and why TAs are likely to play an active role in field-level change. I argue that playing an active role in field-level change on the part of trade associations hinges on the need for collective action by incumbents and the degree to which a trade association has autonomy from and control over its members. I discuss the contributions of my dissertation for research on the strategic framing of field-level change, intermediary organizations in organizational fields, and research on trade associations more generally.

DEDICATION

To my mother

You always wanted me to go to University.

Sorry you got more than you bargained for. Love Sean

ACKNOWLEDGEMENTS

Many people speak of their doctoral studies as a lonely and isolating experience. I am happy to say that I do not share this view. My PhD has been a joyous experience and I have had the rare sensation of feeling nostalgia for the *present* in the last several months of my doctoral studies. There are many people who have made this such a wonderful journey. First, I thank my doctoral supervisor, Christine Oliver. In addition to being truly one of the nicest and most caring individuals I have ever encountered, Christine possesses many other intangible gifts that I am still being surprised by. Every suggestion she has made to me turns out to be correct, but she has a certain way of gently pushing me in the right direction that is barely detectable. I still don't know how she does it. I feel like I have learned more from her about being an academic than from anyone else. Thank you Christine.

I am also grateful to my wonderful committee members Charlene Zietsma and Michael Valente. Both of these people possess an amazing combination of high standards and genuine niceness. Their continued engagement with my dissertation and the helpful and constructive feedback they have given me along the way is deeply appreciated.

I also want to thank the ORGS department at Schulich for being a truly special group of people. I will spend my entire career trying to recapture the warmth and collegiality that exists in this department. In addition, my fellow PhD students were everything you could ask for in terms of colleagues. Madeline, Trish, Luciana, Wes, Kevin, Golchehreh, Golnaz, and Marzieh – I wish we could stay PhD buddies forever. I also had help along the way from great colleagues outside of ORGS at Schulich. In particular, I would like to thank Dirk Matten, Andy Crane, and Eileen Fischer for all their help and support along the way.

I am very grateful to the Mining Association of Canada for their help with my dissertation. They gave me the access I needed and always gave me their time. I also thank all the other individuals that made time for me to interview them as part of my data collection.

So many colleagues gave me helpful and constructive feedback on this dissertation. In particular, I would like to thank Steve Barley, Andy Hoffman, Royston Greenwood, Willie Ocasio, Elizabeth Goodrick, Mike Barnett, Neil Fligstein, Dror Etzion, John Godard, Jillian Chown and all participants in the Ontario Qualitative Methods workgroup. I am truly thankful to all of you.

I also acknowledge the financial support of the Social Sciences and Humanities Research Council (SSHRC) and the Ontario Graduate Scholarship (OGS) for helping me pay my rent over the years.

Finally, I am grateful to my family. My mother and father have been unwavering in their support as I continued to pursue a career that required a long-term investment. Most of all, I am grateful to Nicky and Charley. I love you both. Our little love nest in Toronto will always be the most wonderful place on earth to me. I will never forget newborn Charley sleeping on the sofa next to me while I worked and Nicky slept upstairs. These will always be my warmest memories. Thank you.

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INTRODUCTION

In the last two decades institutional scholars have increasingly focused on processes of evolution and change in organizational fields (Dacin, Goodstein & Scott, 2002; Fox-Wolfgramm et al., 1998; Greenwood & Suddaby, 2006; Greenwood, Suddaby, & Hinings, 2002; Holm, 1995; Leblebici et al., 1991; Lounsbury, 2002; Rao, Monin & Durand, 2003; Seo & Creed, 2002; Townley, 2002; Zilber, 2002). Within this broad and expanding body of literature, a number of scholars have examined the evolution of organizational fields defined by contested issues (Bertels, Hoffman, & DeJordy, 2014; Hoffman, 1999; Maguire & Hardy, 2009; Meyer & Höllerer, 2010; Zietsma & Lawrence, 2010). Fields of this nature tend to be composed of incumbents—those actors who benefit from existing institutional arrangements and seek to defend the field from change—and challengers—those actors who seek to disrupt and alter the field (Gamson, 1975). As a result of this conceptualization, studies have tended to focus on the interaction between challengers and incumbents to understand the dynamics of change in these fields (Bertels et al., 2014; Hiatt, Sine, & Tolbert, 2009; Hoffman, 1999; Zietsma & Lawrence, 2010). However, fields defined by contested issues are not solely composed of incumbent firms and challengers. Most notably, these fields also contain organizations that act as intermediaries between incumbent firms and challengers, the most common of which are trade and professional associations (Fligstein & McAdam, 2011, 2012; Galvin, 2002; van Wijk et al., 2013).

Although trade associations (TAs) are a prevalent organizational form on the economic landscape (Aldrich & Staber, 1988; Barnett, 2006, 2013; Spillman, 2012; Staber & Aldrich, 1983), we still have a very limited understanding of their role in organizational fields and in field-level evolution and change (Greenwood, Suddaby & Hinings, 2002; Rajwani et al., 2015). This is problematic because the limited research we do have in the area suggests that TAs are, in fact, key actors in organizational fields (DiMaggio & Powell, 1983; Elsbach, 1994; Fligstein, 2001; Galvin, 2002; Gurses & Ozcan, 2015; Lounsbury et al., 2003; Rajwani et al., 2015; Spillman, 2012; van Wijk, 2009; van Wijk et al., 2013). Thus, by largely omitting trade associations from our analyses of field-level evolution and change we are

getting an incomplete picture of the complex dynamics of organizational fields. Of the small amount of research on TAs in fields, the majority have argued that they are largely conservative forces in that aim to protect the institutional status quo (Bansal & Roth, 2000; Elsbach, 1994; Fligstein, 2001; Fligstein & McAdam, 2012; Gurses & Ozcan, 2015; King & Lenox, 2000; Maguire & Hardy, 2009; Vermeulen, Buch, & Greenwood, 2007). These studies argue that because TAs are funded and often controlled by incumbent firms who benefit from existing institutional arrangements (see Barnett, 2013), they will seek to protect these incumbents from potential changes to field-level arrangements (Fligstein & McAdam, 2011). As Fligstein & McAdam (2012: 95) suggest, given the structure of trade associations, it is natural for them to “bear a strong imprint” of incumbent interests.

The view of TAs as conservative defenders of the status quo in fields has a number of shortcomings. First, there is an emerging body of research that shows that trade and professional associations may, in some cases, play more of an active role in field-level change (Greenwood et al., 2002; van Wijk, 2009; van Wijk, 2013). Beginning in earnest with Greenwood et al.’s (2002) study of professional associations in the accounting field, an avenue emerged for a more complete picture of the role of associations in field-level evolution and change. Greenwood et al. (2002) highlighted the key role of associations in the “theorization” stage of field-level change and argued that associations host a “process of discourse through which change is debated and endorsed” (2002: 59). Following up on Greenwood et al.’s work, van Wijk and colleagues (van Wijk, 2009; van Wijk et al., 2013) studied the role of trade associations in the institutional evolution of the Dutch sustainable tourism industry. These studies examined how the central TA in the industry orchestrated ongoing interactions with social movements in such a way that shaped how the field evolved. Taken together, these studies suggest that TAs can play a role in field-level change through interactions with both internal audiences (e.g. incumbent firms) *as well* as through interactions with external audiences (e.g. social movements). In any case, these studies suggest that we need a more enhanced understanding of how TAs shape and influence field-level processes. As Greenwood et al. (2002) note, “further research is clearly needed to draw out the complex ways through

which associations contribute to continuity and change and the connection between their actions and different types of legitimacy” (2002: 74).

A second shortcoming of research in the area is that existing work tends to focus either on the interactions of TAs with internal (i.e. member) audiences (Greenwood et al., 2002) or external (i.e. government, NGO) audiences (Barley, 2010; Gurses & Ozcan, 2015; van Wijk et al., 2013). However, focusing on one audience or the other does not allow research to capture the simultaneous and interdependent interactions that TAs have with both internal and external audiences on an ongoing basis. Perhaps the defining feature of TAs in fields is their unique intermediary position located between their member firms and other actors in the field such as regulators and NGOs (van Waarden, 1992). This position enables TAs to act as a bridge between incumbents and challengers and gives them unique access to both groups (van Wijk, 2009). As a result, TAs are likely to play a brokering role between their members and external audiences since their position allows them to be the body through which incumbent/challenger communication occurs. However, this dynamic can only be elucidated if research examines in-depth the interactions of TAs with both internal and external audiences.

A third shortcoming of existing research on TAs in organizational fields is the treatment of TAs as largely unagentic vehicles through which incumbent firms pursue their interests (Barnett, 2013; Greenwood et al., 2002; Gurses & Ozcan, 2015). This longstanding view does not treat TAs as an analytically distinct entity from its member firms. However, although TAs are often the voice through which incumbents can act at the field-level, there are occasions in which the TA and its members may differ in opinion and have divergent short-term interests. For instance, van Wijk et al. (2013) found that the regular interactions between a TA and a social movement around sustainable tourism led the TA to engage in activities that were in opposition to the interests of their members. They were able to go against the interests of their members because their members strongly depended on the TA for legitimacy in the market. This example suggests that TAs are not always a simple reflection of their members’ interests and we need a greater understanding of when, why, and under which conditions this is likely to occur. To

summarize, existing research on the role of TAs in organizational fields emphasizes our need to gain a deeper understanding of their role in field-level change, how their interactions with both internal and external audiences may impact the field, and the conditions under which they may move away from a defender of their members' interests to a more active role in field-level evolution and change.

In this dissertation, I aim to address these gaps in the literature, by asking two related research questions: (1) How do trade associations facilitate field-level change? (2) What factors contribute to a TA's ability to play an active role in field-level change? To answer these questions, I conduct an in-depth longitudinal study of the role of a large national trade association in the evolution of the field surrounding social and environmental sustainability in the Canadian mining industry over 20 years. In particular, I trace the development of the *Towards Sustainable Mining* (TSM) self-regulatory standard which was introduced by the Mining Association of Canada (MAC) in 2004 and has played a key role in the reconfiguration of the field and the institutions that govern it. Drawing from a data set of 102 interviews with former and current members of the MAC staff and other key actors in the field as well as MAC's complete internal archives between the years 1993 and 2013, I aim to shed light on the process by which the field evolved and changed with a specific focus on the interactions between MAC and internal and external audiences.

I answer my research questions in two sections. In the first section I examine the role of trade associations in the *strategic framing* of change at the field-level. Strategic framing refers to the “purposeful communication efforts of leaders or managers in shaping the frames of interpretation of others in an organization, so that they collectively accept and support a change” (Cornelissen & Werner, 2014: 198). The large majority of research on the strategic framing of change has been at the organizational-level (Fiss & Zajac, 2006; Kellogg, 2009; Mantere et al., 2012). My study draws from these insights but also extends them by examining how trade associations use strategic framing to facilitate change at the broader field-level. My findings illustrate how trade associations—acting as an intermediary between internal and external audiences in the field—establish and reinforce specific strategic frames which

support field-level changes. Specifically, I demonstrate how contestation reveals *conceptual divides* in internal and external audiences that act as impediments to change and how TAs engage in *bridging work* which aims to create a link between these disconnected concepts in order to facilitate the establishment of strategic frames which support a particular change. Further, I show how once changes are introduced in the field, contradictions may emerge in the existing frames which triggers additional contestation between TAs and internal and external audiences and thus requires additional bridging work on the part of TAs to reinforce the strategic frames underpinning the change. In the second section, I draw from insights obtained in the first section to develop a conceptual framework to understand the factors that allow TAs to play an active role in field-level change. Specifically, I argue that the role of TAs in field-level change is driven by both the need for collective action on the part of incumbents and the degree to which TAs have autonomy from and control over their members. The conceptual model I present highlights factors from the field, industry, and association-level which contributes to these broader drivers and thus to the role of TAs in field-level change.

My dissertation makes a number of contributions. Specifically, by examining the role of intermediary organizations like TAs in the strategic framing of change, my study takes research on the strategic framing of change outside of the boundaries of a single organization to the broader organizational field. I show how strategic framing in organizational fields—especially fields defined by contested issues—requires both framing aimed at internal audiences such as incumbent firms in the industry and external audiences such as governments and NGOs. I specifically show how the Mining Association of Canada created distinct strategic frames for both audiences in order to support field-level changes. This insight enhances our existing understanding of strategic framing by elucidating the process by which strategic framing can facilitate the institutionalization of field-level change in ways that differ from existing research at the intersection of framing and institutions (see Cornelissen & Werner, 2014). Furthermore, my study highlights the key role of bridging work in the strategic framing of change. In doing so, I shed new light on the micro-processes involved in the mobilization of support for a strategic

frame and offer insights into how impediments to change are overcome. Third, my study illuminates new ways to think about how strategic frames emerge and evolve over time. In particular, I provide a more ‘balanced’ and interactive view of strategic framing (Cornelissen & Werner, 2014) by showing how the meaning underpinning frames evolves and shifts in response to internal and external feedback and contestation. Moreover, my study also shows how the process of strategic framing evolves over time as the changes are introduced to the field. This insight extends our understanding of the dynamics of strategic framing and its relation to institutionalization.

By developing a conceptual model which outlines the factors that shape the role of TAs in field-level change, I also make a number of contributions to the literature. First, my conceptual framework helps to shed light on the current opposing arguments in the literature regarding the role of trade associations in organizational fields and research on TAs more generally. My framework suggests that the extent to which TAs will be active in field-level change or conservative defenders of the status quo is contingent on a number of different factors. By doing this, I help elaborate on the role of TAs in fields and provide important boundary conditions around the conditions under which they are likely to play an active role in field-level change. Second, my framework also moves from the sole view of TAs as unagentic vehicles for their members towards a more dynamic view of TAs that shows how their interests may differ from their members and the conditions under which this may occur. The insights I provide in this area seek to enhance how we conceptualize TAs in management and organizational research. Third, my study contributes to research on the relationship between TAs and corporate social performance (CSP). In particular, my study offers some insights on the prospects of improving CSP through collective action orchestrated by trade associations.

This dissertation is structured in the following way. First, I provide a brief introduction to trade associations as an organizational form and discuss existing research examining the role of trade associations in organizational fields. I then problematize their role in institutional evolution and change and highlight strategic framing as a key activity of trade associations in field-level change. Second, I

discuss the research context of the study and outline my methods including the research design and data collection and analysis. Third, I present the findings which answer my first research question—how do trade associations facilitate field-level change?—and discuss these findings and their implications and contributions. In the fourth section, I answer my second research question—what factors contribute to a TAs ability to play an active role in field-level change?—and discuss the implications and contributions of my framework. Fifth, I discuss the shortcomings of my study and offer suggestions for future research in the area. I conclude by calling for a reorientation of research on field-level change with trade associations at the forefront.

LITERATURE REVIEW

Trade Associations

Although there is a wide variation in trade association¹ (TA) structure and activities, a few common characteristics can be identified (Boléat, 2003; Rajwani et al., 2015). First, trade associations are non-profit member-based organizations whose members are for-profit actors (Spillman, 2012). In most cases these members are corporate, but individuals can also be members in many TAs. Second, member firms are represented in the decision- making and governance structure of TAs (Rajwani et al., 2015). For example, in almost all cases, the board of TAs are comprised of members. In addition, the staff of TAs are often composed of current or former members of that association. Third, it is a commonly held belief that TAs act in the common interest of their members (Boléat, 2003). In other words, the actions of TAs are based around the collective decision-making of their members. Some associations operate on a majority-rules voting basis, while others determine activity based on consensus. Fourth, TAs are industry-specific; that is, members are primarily based in one sector. Trade associations thus differ from “peak

¹ Although trade association is the most common name for these organizations, other studies have used other terms including “industry associations” (King & Lenox, 2000), “business interest associations (Schmitter & Streeck, 1981), “interest associations” (Galvin, 2002), and “business associations” (Bailey & Rupp, 2006). In line with the majority of studies in the area, I use the term trade association; however, each of these terms is used synonymously.

organizations” like the US Chamber of Commerce or the Business Roundtable in their industry specificity (Barley, 2010).

TAs are typically small organizations with only a small number of staff. They tend to have a minimalist structure (Aldrich et al., 1994) and, in some cases, will operate out of the offices of one member firm. However, in some cases, TAs may have hundreds of staff and annual budgets in the millions (Barnett, 2013). Early research on trade associations focused on the founding and population dynamics of associations (Aldrich & Staber, 1988; Aldrich et al., 1990; Aldrich et al., 1994; Staber & Aldrich, 1983). Because of their minimalist nature, TAs require little resources to sustain themselves. As a result, they have proven to be very robust and stable over time (Aldrich & Staber, 1988). In any case, TAs are a prevalent and growing part of the economic landscape with over a hundred thousand in North America and thousands more around the world (Spillman, 2012).

TAs can be described as “meta-organizations”- that is, organizations whose constituent members are other organizations (Ahrne & Brunsson, 2008). However, unlike most other meta-organizations, one of the central features of TAs is their “intermediary” (van Waarden, 1992), “bridging” (Reveley & Ville, 2010), or “brokering” (van Wijk, 2009) role. Specifically, trade associations act as a bridge between their member firms and other actors in and around an industry. This feature separates TAs from other meta-organizations and makes them bear a stronger resemblance to other organizations like trade unions or political parties. Yet, trade associations differ from these organizations in terms of the sheer number (Barnett, 2013) and the specificity of their expertise and focus (Ahrne and Brunsson 2005). We also know much less about TAs than we do about other related organizations like social movements, trade unions, religious associations, charity groups, or political parties (Spillman, 2012).

The intermediary role of trade associations between internal audiences of member firms and external audiences comprised of governments, NGOs, and other stakeholders forms the central tension underlying these organizations. Namely, trade associations are designed to manage the collective interests of a particular group of actors (e.g. a specific industry); however, associations are also required to manage

the interests of broader actors in the field (e.g. government, NGOs) with whom the association interacts. Over 30 years ago, Schmitter and Streeck (1981) dubbed these dual roles as the ‘logic of membership’ and the ‘logic of influence’. The logic of membership suggests that TAs, who are funded by their members, are concerned with protecting the economic interests of these member organizations. The logic of influence suggests that because trade associations frequently interact with other actors at the field-level such as government, NGOs, and labour organizations, they have to simultaneously manage the interests of these groups in order to ensure the long-term stability of the industry—and thus the trade association itself. Trade associations depend on both sets of actors in different ways. From members they require the revenue on which they survive, human resources, information, and participation, whereas from intermediating actors they require recognition, access, and concessions (van Waarden, 1992). This intermediary role, they suggested, puts trade associations in an often conflicted position, whereby they need to represent the interests of members while also being viewed as legitimate by the other actors they interact with including government, NGOs, and labour organizations. This fundamental tension of trade associations makes them less likely to resemble corporations and more likely to resemble hybrid organizations that are embedded in two competing logics (Battilana & Dorado, 2010).

TAs emerged in the middle of the nineteenth century; however, they did not become prevalent until the 1920s (Carrott, 1970). In spite of antitrust laws aimed at curbing collusion in industry, the number of trade associations grew rapidly in the early part of the twentieth century and continues to grow today (Spillman, 2012). This rapid growth was due to a number of factors. First, in the aftermath of the stock market crash of 1929, there was a marked shift on the part of business toward a less competitive and more cooperative relationship between firms. Partly as a result of the unfettered competition of the early 1900s, the business community increasingly was in favour of a more stable and predictable environment (Carrott, 1970). In addition, increasing state involvement in the economy that occurred in the aftermath of the stock market crash also facilitated the growth of TAs since during these periods government gave authorization for the associational governance that TAs engendered (Spillman, 2012). However, the flip

side of this is that trade associations also form in situations when a collective problem is faced by a particular industry (Galvin, 2002). In the 1930s, increasing government involvement in the economy was viewed as a threat to many industries. As a means to combat government control over industries, TAs were increasingly formed as a means of uniting individual firms. In the case of the Canadian mining industry, the national trade associations representing mineral exploration and production were both founded in 1933 and 1935 respectively as the industry was facing increasing government regulations.

While these factors explain the growth of TAs in the first half of the 20th century, they do not offer insight into why the population of TAs has continued to grow (Aldrich & Staber, 1988). In Spillman's (2012) in-depth study, she argues that the continued value of TAs is their role as cultural producers for economic action. She suggests that through a number of activities, TAs give meaning to economic action and facilitate solidarity among competitors, which adds value to members that extends beyond narrow self-interest or profit maximization. Other scholars have argued that the ongoing utility of trade associations is their ability to act as a source of collective power when common problems are faced by an industry (Barnett, 2006). As a result, TAs will continue to serve a useful function as long as industry-wide threats continue to exist.

What do Trade Associations do?

Trade associations are well known for being multifaceted organizations that undertake a number of tasks. Barnett (2013) notes that, by law, trade associations cannot involve themselves in market activities since doing so would violate anti-trust laws. Accordingly, trade associations officially limit their activities to the non-market environment, which consists of “the social, political, and legal arrangements that structure interactions among companies and their public” (Baron, 1995: 73). In this section I draw on existing research on TAs to outline the key activities of these organizations. Following Spillman (2012), I categorize TA activities as either internally (i.e. member) focused or externally focused (i.e. government, NGOs, the public). While these activities do provide an overview of what TAs do, there is widespread variation regarding the extent to which TAs engage in them. For example, although lobbying is considered

by many as the primary activity of TAs (Fligstein, 2001; Hemphill, 1992), smaller TAs do not participate in lobbying (Spillman, 2012). Thus, this section provides a brief overview of TA activities in general. In the next section I review the variations in TAs that have been proposed.

Internal Activities

Regulation – An activity that an increasing number of trade associations are becoming involved in is serving as a governance role in industry self-regulation (Barnett & King, 2008). A number of trade associations have become actively involved as the regulatory bodies in industry self-regulation including chemicals (King & Lenox, 2000; Lenox, 2006), hospitality and recreation (Rivera & de Leon, 2004), nuclear power (Rees, 2009), and maritime shipping (Furger, 1997). Associations are often the active developers of these self-regulatory programs and play a critical role in their dissemination and implementation (Bailey & Rupp, 2006).

Solidarity Building – Trade associations can also engage in solidarity- building activities in attempts to build (non-market) collaboration and cooperation between members (Staber & Aldrich, 1983). These activities are primarily observed at industry trade shows, but associations also have many other less public activities and events to bring members together including meetings, networking events, and other private social events (Aldrich & Staber, 1988).

Education – A related activity of TAs is the training and education of member companies. This includes the dissemination of new information about emerging regulations and laws to member firms or training sessions for new technologies that are applicable for most or all members (Spillman, 2012). Berk and Scheiberg (2005) argue that associations have played a key role in developing the technical capabilities of industries and suggest that this role should be moved to the forefront of analyses of trade associations.

Administrative – Another major activity that trade associations engage in is a number of value-added services for members including the collection of industry statistics (Hemphill, 1992) and other forms of data. This may be used by members for competitive and informational reasons, or for the purposes of regulatory compliance (Staber & Aldrich, 1983).

External Activities

Lobbying – Often described as the primary activity of trade associations, lobbying involves representing the interests of members to regulatory bodies in hopes of ensuring a more favourable regulatory environment (Oliver, 1990). Trade associations provide a means for industries to “speak with one voice” on collective interests (Barnett, 2013). TAs also actively monitor government policy in order to keep members aware of regulatory changes and developments that are on the horizon (Spillman, 2012).

Impression Management – Another important, albeit less understood, role of trade associations is to improve the image of members and the industry more generally in the eyes of the public (Elsbach, 1994). This can be done through public relations campaigns, advertising, education programs, and public events.

Varieties of Trade Associations

In the preceding section, I have briefly discussed the common features of trade associations and outlined the dominant activities of these organizations. Although all TAs have some features in common, there is also substantial variation in TAs in terms of their size, resources, and primary activities. In their recent article, Rajwani et al. (2015) argue that trade associations differ according to size and function. In terms of size, trade associations widely vary with many trade associations having a small staff and minimal resources while others have multimillion dollar budgets and a comparatively large staff. In terms of function, Rajwani et al. (2015) suggest that TAs differ in terms of whether they are primarily internally (member) oriented or internally and externally (outside audiences – e.g. government, NGOs) focused. In other words, although all TAs are internally focused by their very nature, not all trade associations are externally focused. Van Waarden (1992) makes a distinction between the internal function of TAs in terms of the extent to which they are “representative” or “control” organizations. Representative associations—as stressed by research in the Olsonian tradition—are TAs that are focused primarily on aggregating the collective interests of members and representing these interests in the public realm. In contrast, control associations—as stressed in the neo-corporatist tradition—are TAs that seek to act as a governing and regulatory body for members. Van Waarden argues that TAs are usually developed as

representative organizations; however, as a TA develops over time it is likely to shift towards a control organization. This is brought about by increases in available resources and size, a shift towards an external focus, increased formalization, and increased professionalization. Most importantly, as TAs move from representative to control organizations, they gain more autonomy from their members.

To summarize, in addition to having a number of common features, TAs also differ in terms of their size and internal and external functions. I now move to a more specific discussion of the role of trade associations in organizational fields.

Associations in Organizational Fields

Numerous scholars have noted that associations play a unique and important role in organizational fields (Barley, 2010; Greenwood et al., 2002; Galvin, 2002; Oliver, 1990; Rajwani et al., 2015; van Wijk et al., 2013). The uniqueness of TAs in fields stems from their central location in the field. Specifically, trade associations act as intermediaries between firms and other actors that interact “fatefully and fitfully” with each other (Schmitter & Streeck, 1981; van Waarden, 1992). This two-way line of communication with both internal and external audiences often allows TAs to play a bridging role in fields where interests, norms, and assumptions get translated between actors in the field (van Wijk, 2009). In addition to acting as an intermediary in fields, TAs are also unique in the power they possess in fields. In particular, TAs possess both authority and legitimacy and have the power to dictate the norms and understandings that exist in a field (Galvin, 2002). Thus, the position of TAs coupled with their power makes them critical actors in organizational fields. Drawing from an in-depth review of research on trade associations in organizational fields, I present four dominant activities of TAs in fields (see Table #1).

Table #1: Research on Trade Associations in Organizational fields

Activity	Definition	Examples of Activity	Field State which they are most likely to occur	Where it occurs	Selected Studies
Defining	Establishing field-level rules, norms, and understandings and governing their enforcement	Creation of industry-wide standards and codes of conduct Discursive forums where field-level actors can discuss and contest rules, norms and understandings	Emerging	Codes of conduct Standards Board meetings Trade journals	Rees (1997) Galvin (2002) Park (2009) Lounsbury et al. (2003) Lenox & Nash (2003) Bailey & Rupp (2006) Berk & Schneiberg (2005) Spillman (2012)
Defending	Protecting existing field-level rules, norms, and understandings where threatened externally or internally	Verbal accounts Veto power over potential changes Cooptation of threatening party	Disrupted	Press Releases Op-eds Stakeholder meetings and dialogues	Vermeulen et al. (2007) Elsbach (1994) King & Lenox (2000) Bansal & Roth (2000) Fligstein & McAdam (2011)
Legitimizing	Building the legitimacy of the rules, norms, and practices of an industry to other field-level actors	Stakeholder partnerships and collaborations Social and Environmental programs Publicizing achievements Engaging in community initiatives	Emerging	NGO/government partnerships Charity programs Internal awards Press releases	Tucker (2008) Esparza et al (2014) Rajwani et al. (2015) Schaefer & Kerrigan (2008)
Manipulating	Shaping the rules, norms, understandings of the field by influencing other field-level actors	Lobbying Funding think tanks and ad hoc organization Cooptation of field-level actors	Mature	Meetings Correspondence Donations Partnerships	Barley (2010) Drope & Hansen (2009) Saxenian (1989)

Defining – A number of studies have demonstrated the role of TAs in establishing field-level rules, norms, and assumptions that govern the field (Aldrich & Fiol, 1994; DiMaggio & Powell, 1983; Rees, 1997; Fligstein & McAdam, 2011; Galvin, 2002; Park, 2009; Lounsbury et al., 2003; Lenox & Nash, 2003; Bailey & Rupp, 2006; Berk & Schneiberg, 2005; Spillman, 2012). Early neo-institutional research cited TAs as central arenas facilitating normative isomorphism (DiMaggio & Powell, 1983). According to DiMaggio and Powell (1983), associations facilitate normative isomorphism by acting as a “vehicle for the definition and promulgation of normative rules about organizational and professional behavior” (1983: 152). More recently, Spillman (2012) added that associations act as “cultural producers of ‘industry interests’” (2012: 110). They do this by providing a “cultural infrastructure” within which industry interests can be constituted and reconstituted. This is done through a number of means, Spillman

suggests, including formal member meetings and communications as well as more informal meetings including conventions and other social gatherings. It is through this that associations work to “discern, articulate, and sometimes debate” (2012: 110) the interests of members rather than simply promoting them. In their historical study of TAs, Berk and Schneiberg (2005) suggest that many TAs are, in fact, developmental associations whose primary activity is advancing the technical capabilities of its members. They argue that developmental associations “perturbed habits, invited firms to reflect upon background cost conditions, and used information, deliberation, and benchmarking to foster discovery, experimentation, and productivity improvement” (2005: 73). Taken together, the defining role of TAs in fields is about articulating and (implicitly and sometimes explicitly) enforcing the dominant norms of particular fields.

Nowhere is the defining role of TAs more evident than in the development and implementation of self-regulatory standards (Barnett & King, 2000; Lenox & Nash, 2003). Many trade associations have developed such standards to shape the normative activities of the particular industries. Perhaps the most well-known example of a standard developed by a TA is the chemical industry’s Responsible Care Programme developed by (what was then referred to as) Canadian Chemical Producers’ Association (Rees, 1997; King & Lenox, 2000). TAs also play a role in developing standards that are broader in their scope than industry- specific standards. For example, transnational standards such as the ISO 26000 standard on Corporate Social Responsibility had substantial input from a number of national and international trade associations (Helms, Webb, & Oliver, 2011). In addition to formal standards, TAs also actively develop codes of conduct for industries that set a standard for what is considered appropriate behaviour and practices (Hemphill, 1992). In addition to explicit forms of defining that occurs through standards and codes of conduct, TAs also engage in defining through more implicit means such as trade journals, newsletters, and other social events (Spillman, 2012).

The defining role of TAs is most prominent in field formation. For example, in Lounsbury et al.’s (2003) study of the emergence of the US recycling industry, TAs became arenas of contestation and

negotiation where field-level rules, norms, and meanings were established. Although the defining role of TAs is most prominent in field formation, it is always present in cases of disruption in mature fields. For example, in the case of the chemical industry, it was during the disruption of the field in the aftermath of Bhopal that facilitated the development of Responsible Care (Hoffman, 2001). However, the defining role of TAs is ongoing and occurs in a consistent, though not always explicit fashion through ongoing interactions between TAs and their members.

Defending – Another key role of TAs in organizational field is that of protector and defender of the institutional status quo (Bansal & Roth, 2000; Elsbach, 1994; Fligstein & McAdam, 2011; King & Lenox, 2000; Vermeulen et al., 2007). Since TAs are funded by members, it follows that their actions will seek to protect the interests of incumbent firms in the industry (Fligstein & McAdam, 2011). As a result, TAs tend to be a conservative force in organizational fields aimed to preserve existing rules, norms, and assumptions. A number of studies have demonstrated this role. For example, in Vermeulen et al.'s (2007) study of the Dutch concrete industry, they found that associations—which were primarily controlled by large incumbent firms—were able to successfully block a change initiative put forward by the Dutch government. Since the government depended on associations for technical information and for participation, the associations had several opportunities to veto the change and protect the status quo. In Maguire and Hardy's (2009) study of the deinstitutionalization of the chemical DDT, they found that trade associations actively defended the institutional status quo following disruptive work that threatened existing institutions. Specifically, associations would author texts for public consumption (e.g. press releases, op-ed pieces, studies) that sought to defend the regulative, normative, and cognitive underpinnings of existing institutions in the field. The importance of language in the defending role of TAs was also found in Elsbach's (1994) study of trade associations in the California cattle industry. In other cases, TAs may preserve the institutional status quo by processes of cooptation in which they neutralize threats from challenging actors by modifying the interests of these actors (van Wijk et al., 2013). What these studies have in common is the notion that since the incumbent members of associations

tend to have an interest in the institutional status quo, associations will use their power, resources and status to maintain and defend the status quo in times of external threats.

The defending role of TAs is most evident when the existing rules, norms, understandings and practices in a field are under threat (Hoffman, 2001). Since disruptions in a field—including stakeholder pressure, proposed or implemented regulatory changes, new technologies, accidents or controversies—often threaten an industry collectively (Barnett, 2006). As a result, TAs are often the organizations that defend an industry as a whole following a disruption. Defending an industry following a disruption involves a number of activities. As shown above, one of the most common means through which this occurs is via texts and communication. TA associations often use press releases, op-eds, and personal correspondence to defend an industry collectively (Elsbach, 1994; Maguire & Hardy, 2009). Of course, TAs also engage in formal dialogues and discussions with challenging stakeholders. These sorts of interactions can take many forms including meetings, personal correspondences, and public debates. In addition to these text and communicative forms of defending, TAs can also use their power and resources in other ways. In Vermeulen et al's. (2007) case of the successful rejection of a proposed government initiative in the Dutch concrete industry, since the government relied on industry and the TA for technical knowledge, the industry effectively had veto power over any proposed changes to the industry. TAs were used as a means to exercise and communicate this veto power. In sum, the defending role of TAs is most pronounced in disrupted fields and involves the use of persuasive use of language and communications as well as the mobilization of material and symbolic resources.

Legitimizing – Another key activity of TAs in emerging fields is legitimating industries in their nascent stages. By legitimating, I am referring to activities that build the legitimacy of the rules, norms, and assumptions of emerging industries of other field-level actors. In their study of the gourmet food truck industry, Esparza et al. (2014) show how TAs reduce uncertainty and build the cognitive and socio-political legitimacy of emerging industries by representing the collective interests of members when challenged by incumbent firms and government. In addition, TAs help build a collective identity and

provide a means to manage “tragedies of the commons” in the emerging industry. In doing this, TAs build the legitimacy and cultural capital of the emerging industry to key actors in the field including regulators and incumbent firms. Tucker (2008) suggests that TAs play a key role in legitimation since TAs provide a body through which industry actors can collectively offer a promise on their future behaviour and performance. However, he also finds that TAs are more likely to be effective in legitimating an industry if they are viewed as trustworthy by other field-level actors. TAs that were viewed as trustworthy were those that had a history of engaging in collaboration and dialogue with external stakeholders and were not viewed as being solely focused on the interests of the industry they were representing.

The legitimating role of TAs in fields can be observed in a number of activities and practices. Perhaps most notably, TAs often engaged in a number of initiatives around social and environmental issues which can include externally- focused activities such as charities and stakeholder collaborations as well as internally- focused programs such as codes of conduct and awards for members in recognition of social and/or environmental performance (Schaefer & Kerrigan, 2008).

Manipulating – A fourth critical activity of TAs in fields is actions aimed at shaping and influencing the field-level environment. While the previous strategies have largely been centred on the members of the TA—be it in defining the rules and norms of the members, defending these rules and norms, or legitimating the collective membership to other field-level actors—this strategy is primarily externally focused and aims to shape the interests, perceptions, and behaviours of other actors in the field (Oliver, 1991). Barley (2010) examines this strategy in depth in his detailed study of the means through which the business community in the US constructed an “institutional field” as a means to control government since the late 1970s. In trade associations, Barley shows, TAs play a key role within the construction of this field by funding, hiring, lobbying, testifying, and supplying personnel to other organizations in the field. In doing so, they work to control the range of options that is available to governments. Thus, although this strategy may employ some of the same tactics as defending, it differs in that defending is a response to external challenges or contestations. Unlike when TAs engage in defending, contestation is not necessarily

present when they engage in manipulation. In fact, TAs often engage in manipulation as a means to prevent conflict and contestation from arising in the first place (Lukes, 1974). In this way, manipulating is a proactive activity whereas defending is reactive.

As Barley (2010) shows, trade associations engage in manipulation by working to control and co-opt other field-level actors. In addition to lobbying, funding, supplying personnel, etc., TAs also engage in various educational activities aimed at shaping and influencing how other actors in the field and other external audiences view their industry. In one example, TAs often create and participate in ad hoc organizations that are focused around a particular issue or set of issues (Barley, 2010). These “front groups” or “astroturf” organizations often function as grassroots organizations seeking to educate the public around a particular issue in hopes of influencing how these audiences view it (Walker, 2014). In one example, the Prospector and Developers Association of Canada has a charity-based offshoot called Mining Matters that develops mineral and mining-related content for grades K-12 in Canada. The ultimate objective of this program is to educate Canadian youth about the minerals and the mineral and mining industry in hopes of making these students view the industry favourably.

Shortcomings and Gaps

The above review highlights the critical role of TAs in organizational fields. As fields evolve and change so do the key activities of TAs. However, there are still a number of major gaps in our understanding of the role of TAs in fields and how they might shape and influence them. First, TAs have traditionally been viewed as playing conservative roles in organizational fields. That is, they primarily seek to defend and protect the status quo (Fligstein & McAdam, 2011; Vermeulen et al., 2007). However, a few studies have challenged this view and argued that associations can actually play a critical role in change in fields (Greenwood et al., 2002; van Wijk et al., 2013). For example, in Greenwood et al.’s (2002) study of the accounting field they argue that associations² play a large role in the legitimation of an

² It should be noted that Greenwood et al., (2002) were specifically talking about professional associations. There are, however, reasons to treat trade and professional associations as analytically distinct. First, there are minor differences between trade associations and professional associations. For example, in general trade associations tend to represent the interests of firms

institutional change. Specifically, the association they examined effectively redefined what it meant to be a Chartered Accountant and what the appropriate norms of this profession should be. Greenwood et al. (2002) cautiously note that change was not initiated by the association, but instead by the large incumbent member firms. However, once the change was introduced, the associations effectively legitimated the change to their members by playing a key role in the theorization stage of institutional change. Specifically, Greenwood et al. (2002) argue that at key moments of deinstitutionalization, associations host a “process of discourse through which change is debated and endorsed” (2002: 59). This occurs by “negotiating and managing debate within the profession” and by reframing professional identities as they are presented to others outside the profession” (2002: 59).

In a more recent example, van Wijk et al.’s (2009, 2013) research on the Dutch tourism industry found that associations acted as institutional entrepreneurs in the shift to a sustainable tourism model. She argues that associations drive change in a field for three reasons: (1) the central position in a field links them to several different actors and this exposes them to alternative rules, norms, understandings; (2) their position as representatives of an industry will make them the focus of external challenges which increases their motivation to adopt alternative rules, norms, understandings; and (3) sustained social interactions between themselves and challengers slowly increase their openness to alternative rules, norms and understandings. Taken together, these studies emphasize the role of associations in pushing their members toward alternative rules, norms, and understandings rather than protecting them from these changes.

whereas professional associations tend to represent individual professionals (Bailey & Rupp, 2006). Although there are cases where trade associations represent individuals and professionals and professional associations represent firms, this is not as common. Second and more importantly, trade associations and professional associations are conditioned by different underlying institutional logics (Thornton, Ocasio, & Lounsbury, 2012). Taking the institutional logics perspective seriously, it follows that professional associations are rooted in a professional logic whereby legitimacy is generated from professional expertise and identity is based in quality of craft and personal membership. Trade associations, which represent corporate interests, are more likely to be rooted in a market logic whereby legitimacy is generated by profits and self-interest is the underlying motivation. Thus, even though professional and trade associations may share similar activities, their institutional embeddedness differs in important ways. All this being said, Greenwood et al.’s (2002) finding about the role of professional associations in theorizing change also appears to hold for trade associations (van Wijk, 2009)

The above studies challenge the conservative role of associations in fields and highlight the need for research to delve deeper into the role of associations in moments of evolution and change in fields. Furthermore, they suggest that the role of associations in these processes might be dynamic, emergent, and multifaceted (van Wijk, 2009). In addition to understanding the question of how trade associations influence changes in organizational fields, examining the conditions under which TAs are likely to play an active role in change becomes a central question. Thus, although scholars are beginning to explicitly acknowledge the importance of TAs as institutional entrepreneurs (Rajwani et al., 2015), we still have almost no research in this area.

A second area where there is a considerable gap in existing knowledge about TAs in organizational fields stems from their intermediary role between their members and other field-level actors. Most existing studies tend to either focus on the internally (i.e. member) focused activities of TAs (Greenwood et al., 2002) or the externally (i.e. government, NGO) focused activities of TAs (van Wijk et al., 2013). Yet, because of their unique intermediary position in fields, TAs are simultaneously interacting with both internal and external audiences in an ongoing fashion. More importantly, these internal and externally-focused interactions and communications are likely to be interrelated and mutually constitutive. However, there is still very little research that captures the internal and external dynamics of TA activities. This oversight is lamentable because the role of TAs in fields is likely not one-sided and likely impacts both internal and external audiences in related and perhaps complimentary ways.

A third shortcoming of existing research on TAs in organizational fields is the general downplaying of TAs as their own entities. Instead, TAs are primarily shown to be vehicles for their largest member firms (Barnett, 2013; Greenwood et al., 2002). As a result, the importance of TAs is more about their “organizational and discursive infrastructure” (Spillman, 2012: 112) through which member companies can debate industry activities and define industry rules, norms, and understandings (Fligstein, 2001; Lounsbury et al., 2003). In viewing TAs this way, researchers assign very little agency to the actual actors within the agency. In many cases TAs are not staffed by executives from member firms. Instead

TAs are made up of a number of staff that might have held roles in industry, government, or in certain cases, NGOs. The current view of TAs is simply that of a structure whereby large incumbent firms can exercise their non-market strategies. However, there are reasons to believe that TAs are more than simply tools of large incumbent firms (Esparza et al., 2014). As van Wijk et al. (2013) find in their study, the TA in the Dutch tourism industry initially acted against the interests of its members by actively pursuing a change that was sought by a social movement. The authors suggest that this occurred through a process of mutual cooptation whereby the TA became embedded in the cultural and relational fabric of the movement. This finding opens up an unexplored avenue for research on TAs in organizational fields by highlighting that, in some cases, TAs might actively, if temporarily, go against the immediate interests of their members. Understanding why this happens, when it is likely to occur, and how it happens is critical to gain a clear understanding of the role of TAs in organizational fields.

I take these three shortcomings as the entry point to my study of the evolution of social and environmental sustainability in the Canadian Mining industry. My findings illustrate a key role for trade associations in the strategic framing of field-level change. My study, thus, is consistent with research that challenges the view of TAs as largely conservative in organizational fields (Greenwood et al., 2002; van Wijk et al., 2013); however, my study also moves beyond these studies by showing the interaction of TAs with both internal and external audiences and how this simultaneous interaction shapes the evolution of the field. Furthermore, my findings highlight how TAs differ and often conflict with their member firms. As a result, my study provides a more in-depth portrayal of trade associations that captures their complex role in field-level evolution and change. I now discuss the literature on the strategic framing of change and illustrate how and why it applies to TAs in organizational fields. This discussion of strategic framing occurs simply to give context to my findings and does not reflect deductive theorizing (Lok & de Rond, 2013). The focus on strategic framing emerged from the data itself through an iterative process of examining themes in the data and consulting relevant literature (Strauss & Corbin, 1998).

TAs and the strategic framing of change

Cornelissen and Werner (2014) provide a useful and needed review of framing research in order to provide some clarity on an increasingly fuzzy concept. They refer to *strategic framing* (see Cornelissen & Werner, 2014; Fiss & Zajac, 2006; Kellogg, 2009; Mantere et al., 2012) as a “schemata of interpretation” (Goffman, 1974: 21) used by actors in attempts to shape the meaning of social reality for different audiences. Research on strategic framing primarily focuses on how organizational leaders use communication to shape “the frames of interpretation of others in an organization, so that they collectively accept and support a change” (Cornelissen & Werner, 2014: 198). In most cases, strategic framing involves selecting a particular aspect of social reality and making it more salient in communication in order to “promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman, 1993: 56). Strategic framing is a critical activity in organizations and has been shown to be particularly crucial in times of change (Bartunek et al., 1999; Corley & Gioia, 2004; Dunford & Jones, 2000; Gioia & Chittipeddi, 1991) since how stakeholders perceive and interpret the change plays an important role in its ultimate success or failure (Kellogg, 2009). As Fiss and Zajac (2006) argue, since “change generally involves the reordering of priorities and the disruption of established relationships, such change tends to be controversial—both internally and externally—and almost always presents a justification problem” (2006: 1173-1174). Strategic framing provides a means to justify changes and make them palatable to audiences.

Strategic framing can be thought of a subset of sensegiving (Dunford & Jones, 2000; Gioia & Chittipeddi, 1991; Maitlis & Lawrence, 2007; Snell, 2002) which refers to the “process of attempting to influence the sensemaking and meaning construction of others” (Gioia & Chittipeddi, 1991: 442). What this process actually involves has been the subject of a number of studies. Fiss and Zajac’s (2006) study shows that German firms’ framing of a strategic change toward a shareholder value model differed depending on the composition of their stakeholders. They identified two frames: an acquiescence frame—that signals total compliance to the strategic change, and a balancing frame—that signals accommodating

divergent interests and only partial compliance to the strategic change. Benford and Snow (2000) identify four processes of framing: (1) bridging – connecting two or more frames that are ideologically congruent but disconnected; (2) amplification – making specific cultural values and norms salient within a frame; (3) extension – enlarging the boundaries of a frame to encompass a wider set of interests; and (4) transformation – changing or altering the meanings underpinning a frame. Recently, Weber & Cornelissen (2014) introduced the constructs of frame shifting, which involves “semantic re-writing that reorganizes existing information and conventions associated with the prior schema into that of a new frame” (2014: 1456) and frame blending which involves “the discursive combination of two separate schemas that share some abstract structure, or as the incorporation of words and elements of one schema into that of another” (2014: 1456). Taken together, these approaches show that strategic framing involves a number of specific tactics aimed at making a change palatable to audiences. However, a shortcoming of these studies is that the focus is largely one-sided with an overemphasis on the framer and less emphasis on the audience. Cornelissen and Weber (2014) call for a more balanced approach to strategic framing which takes both framer and audience into account. Further, these studies tend to focus on the “initial or formative stage of actors imagining a vision for divergent change” and not the “strategies that actors may use to mobilize support for their frame-based vision” (Weber & Cornelissen, 2014: 1465). In other words, the focus in this work is on the initial theorization of possible frames whereas there is less of a focus on the specific ways in which changes are deemed justifiable and how impediments to change are overcome. Thus, to enhance existing research on the strategic framing of change, further work needs to be done that shows the interactive nature of the construction of strategic frames and the specific strategies by which support for a change is mobilized.

In this dissertation, I aim to address these gaps in the literature by focusing on the strategic framing of field-level change in Canadian mining. I show how—given their intermediary position between incumbents and challengers and their need to be viewed as legitimate by both audiences—strategic framing is a central activity for TAs in organizational fields defined by contested issues. Although little

research has examined it explicitly, a recent study by Gurses and Ozcan (2015) hints at the importance of strategic framing for TAs. They specifically examine the role of trade associations in the process of entrepreneurs entering the US pay television market. They suggest that entrepreneurs and incumbent firms use trade associations to engage in framing contests which enable or disable field-level change. The authors show how trade associations are used to create frames and communicate them to key external audiences including regulators and the broader public. This study highlights the importance of trade associations in strategic framing in organizational fields. However, there is still much more to understand in this area. In particular, because Gurses and Ozcan's study focuses on a TA that was primarily a pure reflection of its members, the strategic framing that they focus on is solely aimed at external audiences such as regulators. However, as other studies have shown (e.g. Greenwood et al., 2002), associations are also engaged in strategic framing processes internally (i.e. towards members) as well. Thus, studying the interplay between the strategic framing aimed at both internal and external audiences has the potential to enrich our current understanding of strategic framing by uncovering the dynamic, evolving, and interdependent nature of strategic framing aimed at multiple audiences. I now turn to a discussion of my empirical context.

RESEARCH DESIGN AND METHODS

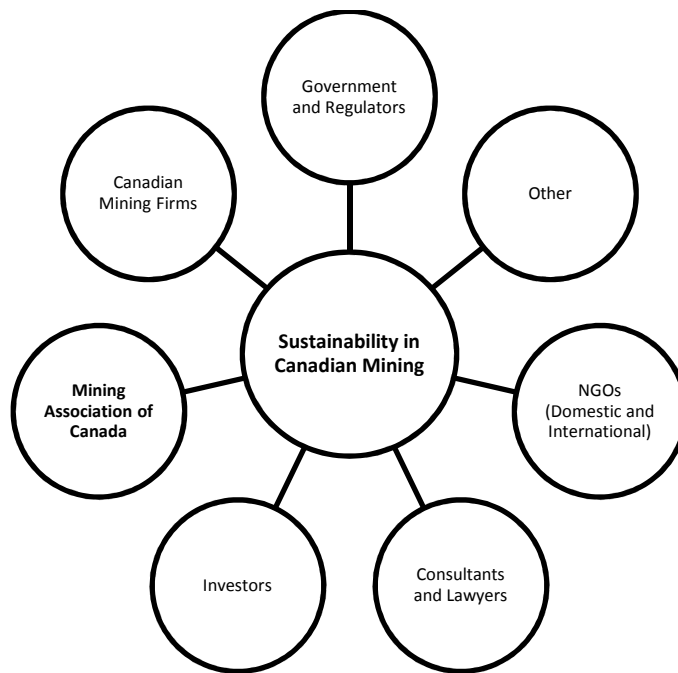
Research Site - The Field Surrounding Sustainability in the Canadian Mining Industry

Organizational fields³ are “sets of organizations that, in the aggregate, constitute an arena of institutional life” (DiMaggio & Powell, 1983: 148-149) “whose participants interact more frequently and fatefully with one another than with actors outside the field” (Scott, 1995: 56). In this study, I follow the lead of Hoffman (1999) and focus on organizational fields that form around issues rather than common markets or technologies. A number of studies have examined “contested issue fields” (Meyer & Höllerer, 2010)

³ In this study, I use the term organizational field rather than institutional field. Although they are often used interchangeably in the literature (see Hardy & Maguire, 2010), we follow the lead of Wooten and Hoffman (2008) and used the term ‘organizational field’.

surrounding issues such as environmental protection (Child, Lu, & Tsai, 2007), shareholder value (Meyer & Höllerer, 2010) and climate change (Schüssler, Rüling, & Wittneben, 2014). The central idea of contested- issue fields is that a central issue or debate brings different actors together rather than a common market or technology. In the Canadian mining industry, the issue of sustainability has attracted a number of organizations to “frequently and fatefully” interact with each other including mining firms, trade associations, domestic and international social and environmental NGOs, governments and policymakers, consultants, investors, lawyers, and ad hoc organizations (see figure #1).

Figure #1: The Organizational Field Surrounding Sustainability in Canadian Mining



The United Nations World Commission on Environment and Development (UNWCED) define sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (UNWCED, 1987: 43). Sustainable development has a social, environmental, and economic dimension. As Bansal (2005) explains, environmental integrity ensures that “human activities do not erode the earth’s land, air, and water resources” (2005: 198). Social

equity ensures that “all members of society have equal access to resources and opportunities” (2005: 198). Finally, economic prosperity promotes “a reasonable quality of life through the productive capacity of organizations and individuals in society” (2005: 198). This “triple bottom line” approach has been widely discussed in the management literature (Norman & MacDonald, 2004). In the mining industry⁴, the primary sustainability-related issues revolve around social issues such as human rights, community engagement, and land use as well as environmental issues such as greenhouse gas emissions, tailings management, wildlife protection, and water pollution (Dashwood, 2012). In the field surrounding sustainability in Canadian mining, large mining companies were the primary incumbents in the field while government and NGOs became the central challengers. The national trade association for the industry—The Mining Association of Canada—acted as an intermediary between these two groups. I now discuss the Mining Association of Canada in more detail.

The Mining Association of Canada

The Mining Association of Canada (MAC) was founded in 1935, three years after the arrival of the Prospector and Developers Association of Canada (PDAC). In the 1930s, depression-era regulations were being introduced by Canadian governments and miners felt that collective action was required to defend their interests. In contrast to the PDAC which represents the prospecting and exploration aspect of mining, MAC was founded to represent the industries of mining companies involved in the production aspect of the industry. These were the companies that had active mining operations in Canada and engaged in the extractive process. MAC’s focus is primarily on issues related to the mining industry at the national level. Issues that are relevant to specific provinces tend to be handled by provincial mining associations.

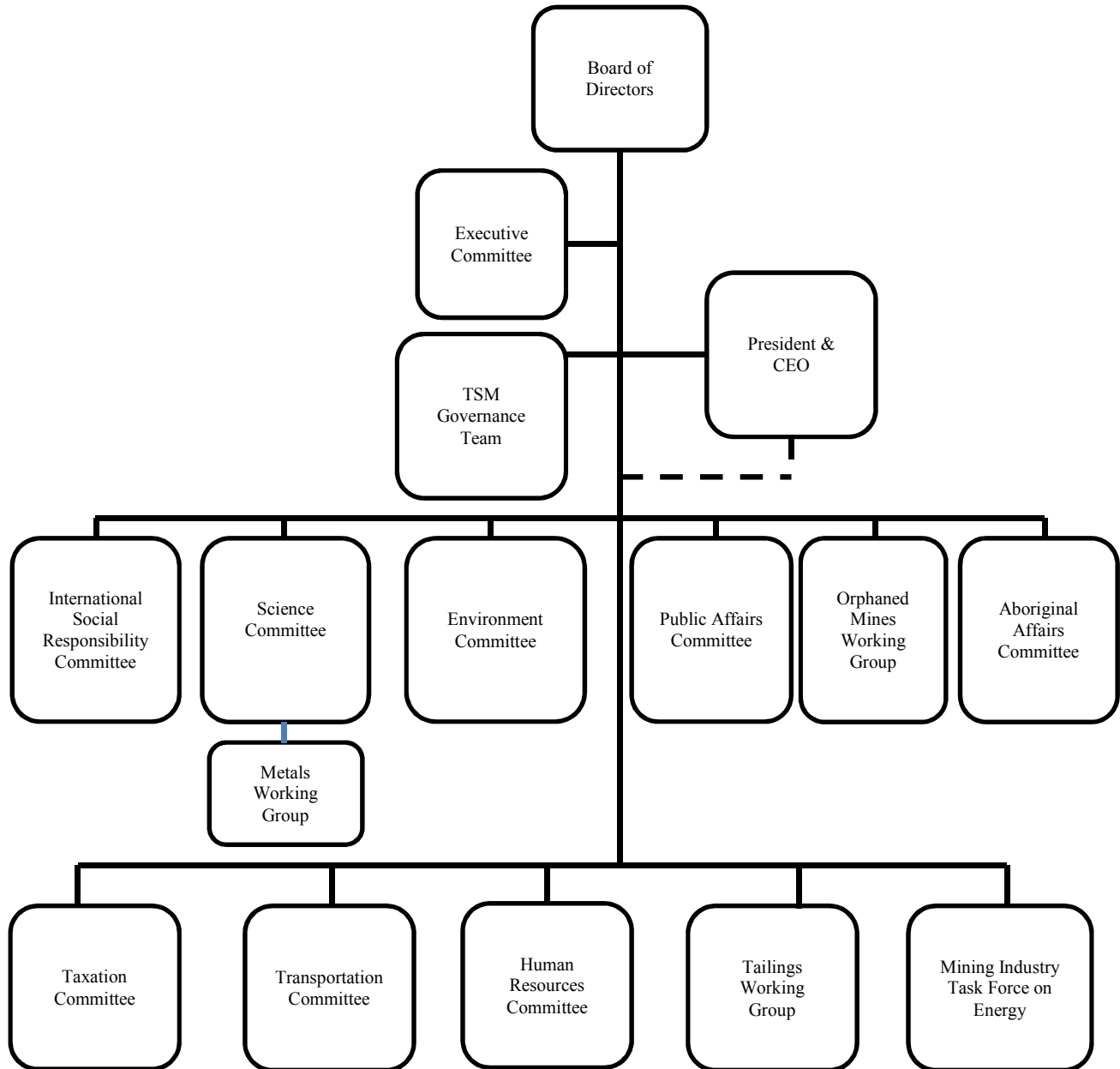
Although MAC’s mandate has traditionally focused on national issues in Canada, recently MAC has expanded its mandate to address issues outside of Canada. Most MAC members have operations outside

⁴ The mining industry has a long history of social and environmental problems that have been widely documented. Social and environmental issues are so prominent in mining that there is an entire academic journal—The Extractive Industries and Society—that publishes research on social and environmental issues around mining and other extractive industries. In popular culture, the documentary film *Harlan County USA* details a coal miner’s strike in Harlan County Kentucky in the early 1970s. In music, the title track from Steve Earle’s album, *The Mountain*, is about the social and environmental practices of mining companies.

of Canada and the Canadian government and NGOs have increasingly focused their attention on Canadian companies operating outside of Canada. As a result, in 2009, MAC started a committee focused on international issues.

MAC operates as a non-profit organization and is funded by its members. Despite being one of the most powerful lobbyists in Canada (Macleans, 2013), MAC has a relatively small staff of just 12 people. The majority of the staff outside of the president and support staff focus on specific areas (see figure #2). These areas include environment and regulatory affairs, technical and northern affairs, sustainable development, government affairs and communications, and economic affairs. The director of environment and regulatory affairs focuses primarily on national-level environmental regulation that is relevant to the mining industry. These include the Metal Mining Effluent Regulations (MMER), the Species at Risk Act (SARA), and the Fisheries Act. The director of technical and northern affairs is responsible for technical aspects of mining operations such as the management of mining effluent and water management as well as the promotion of development of mining in Northern Canada. The director of sustainable development leads MAC's Towards Sustainable Mining Program (TSM), which is a MAC- created standard in which members report on social and environmental dimensions. In addition, this director promotes corporate social responsibility and sustainable development to MAC's members. The director of government affairs and communications is in charge of coordinating government relations activities including MAC's well know "Mining Day on the Hill" which is an annual event where MAC and its members formally lobby for the industry to government through a number of formal and informal meetings. In addition, this director manages public relations efforts such as advertising campaigns. The director of economic affairs is primarily responsible for educating members on key issues related to taxation, international trade, transportation and infrastructure, energy, and innovation. He compiles an annual collection of industry facts and figures (e.g. industry contribution to GDP) which is made publically available. In short, the 12 staff members at MAC oversee a wide range of focus areas which have expanded over time.

Figure #2: Mining Association of Canada Organizational Structure



MAC has just 38 members, but because these tend to be the largest companies in the industry, MAC's membership is responsible for nearly 50% of mining production in Canada. In fact, MAC represents all of the major players in the Canadian industry except for one company that has decided not

to join. Each member company gets to have one representative on MAC's board of directors⁵. Outside of the board representative, member companies also have employees participate in one of MAC's several committees including the environmental committee, Towards Sustainable Mining committee, International corporate social responsibility committee, government relations, economic affairs, and public affairs committee. The fee structure for member companies is based on their asset value in Canada. This means that those companies with the largest amount of operations in Canada will pay the most in membership fees⁶. In addition to member companies, MAC also has 49 associate members. These members do not receive a spot on the board, but do have access to MAC's resources in a number of other ways. These members primarily include organizations that are connected to the Canadian mining industry in some way such as exploration, transportation, or technology.

As mentioned above, each member company receives a seat on MAC's board of directors. This is unique among trade associations, but MAC is able to offer this to members given the small size of the membership. That being said, having 39 board members that often represent different provinces and minerals (e.g. gold, diamonds, zinc, nickel) does create a widely diverse board of directors. Of these board members, one individual is chosen for a two- year term as Chairman of the board. Additionally, 14 board members are chosen to sit on an executive committee. In cases where the board cannot meet consensus on an issue, the executive committee deliberates and chooses a course of action. MAC has four board meetings of the board per year and several more executive committee meetings.

Disruptive Events and Field Formation

The 20 year time period 1993-2013 was a particularly turbulent period in the Canadian Mining industry marked by a number of disruptive events (see table #2). In the 1990s, the Canadian mining

⁵ MAC is governed by a Board of Directors. Representatives of all full member companies are eligible for nomination to the Board. The Chairman and other officers of the Association are elected by the Board. Provincial and territorial mining associations and chambers of mines are ex-officio members of the Board

⁶ This does not necessarily mean that the largest companies pay the most in membership fees. Since many MAC members have a large amount of operations outside of Canada it is also sometimes the case that smaller companies that have larger asset values in Canada pay more in fees than larger companies whose assets are largely held outside of Canada.

industry was lagging behind other industries in its attention to social and environmental issues. By the end of the 1990s, other natural resource-based industries had started to take social and environmental issues seriously. The chemical industry had the “Responsible Care” programme (King & Lenox, 2000) and the forestry industry had started the Forestry Stewardship Council (FSC). Yet, the mining industry was not strongly engaged in social and environmental issues and was now looked at by mining executives as being “Neanderthalic”. Few individual companies had formal policies and procedures focused on social and environmental performance and there was no collective standard like the chemical or forestry industries. However, the industry’s lack of engagement with these issues was primarily a result of little external pressure being put on the industry. Indeed, the chemical industry’s Responsible Care Programme was very much a response to the pressure put on the industry following the Bhopal disaster (Hoffman, 1999). Similarly, the FSC was a result of increased pressure placed on the forestry industry for industry practices such as “clear cut” logging (Zietsma & Lawrence, 2010). In similar fashion, the Canadian mining industry did not seriously engage with social and environmental issues until pressure was put on the industry to do so.

As the 1990s progressed, the industry went through an economic downturn⁷ where mineral prices decreased, investment halted, and government support waned. In addition, the series of environmental accidents at mines owned by Canadian companies brought media and NGO scrutiny to the industry. As a result, very few new mining projects in Canada were getting government approval and those that were getting government approval were taking several years. Government was increasingly portraying mining as a “sunset” industry without a sustainable future. In addition, between 1993 and 2004, Canadian mining

⁷ The mining industry has a number of unique features. First, mining is particularly driven by mineral prices. Boom and bust cycles in the industry are largely driven by mineral prices. Adding to this market volatility, mining by its very nature requires a relatively long-term investment. Once a mineral deposit is found, it takes a significant amount of capital, resources, and time to extract the mineral deposit. Following the identification of a mineral deposit, a mine needs to be designed which averages around two years. Following this, construction begins which often takes between 2 and 4 years. Once construction is complete, the actual production (i.e. extraction) can begin. This process takes 10 years at a minimum and can go on for decades. Once production is complete, mine closure and land reclamation begins which can take between 1 and 5 years. Thus, the life of a mine can range from around 15 years to 100 years. Each stage requires significant amounts of capital and resources. In short, the mining industry faces high degrees of volatility while at the same time requiring a long-term and capital-intensive commitment.

companies were involved in a number of high profile environmental accidents outside of Canada in which dams carrying waste (or tailings) from mines broke and waste materials spilled into rivers and other bodies of water. In 1995 a Canadian company (and MAC member) Cambior had a tailings spill at their Omai mine in Guyana which leaked mine waste into the Essequibo River. The next year, Marcopper—a subsidiary of Canadian company Placer Dome—experienced a tailings breach at their mine in Marinduque, Philippines, which created flash floods and resulted in Boac River being deemed unusable. As a result of these incidents, the Canadian industry started to come under increasing scrutiny for its environmental performance abroad. The most noteworthy outcome of this scrutiny was the Canadian Broadcast Corporation (CBC) running a segment on the national news titled “The Ugly Canadian” which highlighted the poor social and environmental record of Canadian mining companies operating abroad.

Following the CBC segment, the liberal federal government responded by introducing a new set of draft regulations into the Fisheries Act – the first new regulations proposed in 24 years. These regulations, under section 36 of the Fisheries act, called the Metal Mining Effluent Regulations (MMER) intended to monitor and control the amount of mining effluent released into the ecosystem. Additionally, proposed additions to the Canadian Environmental Protection Act (CEPA) and stronger regulatory teeth provided to the Canadian Environmental Assessment Agency (CEAA) were pushed through in this stage. In addition to mounting government pressure on the industry during this period, the industry started to receive increasing NGO attention. Most notably, in 1999 an NGO solely devoted to monitoring the Canadian mining industry – MiningWatch Canada – was founded. MiningWatch was unique in its sole focus on the Canadian Mining industry. Its impact was quickly felt when in 2002, MiningWatch drove the Canadian firm Talisman Energy out of Sudan with accusations that the company allowed its oil developments to be used by military commandos to attack local rebels and civilians. In addition to MiningWatch, several other NGOs began to focus attention on the Canadian Mining industry around this time including Greenpeace, Amnesty International, and the Sierra Club.

Table #2: Chronology of Events in the Field, 1993-2013

Year	Event
1992-1993	Whitehorse Mining Initiative (WMI) talks begin led by MAC and including Aboriginal groups, government officials, environmental NGOs, and labour unions MAC launches “Keep Mining in Canada” public relations campaign aimed at improving public support and policy environment for the industry
1994	New Canadian Environmental Assessment Act takes effect after 2 year delay and several revisions
1995	MAC member firm Cambior experiences waste spill in Guyana WMI accords are signed by all parties
1996	MAC member firm Placer Dome Spill experiences waste spill at Marcopper mine in Philippines Government begins process of deregulation to Environmental Assessment Act
1998	CBC airs “The Ugly Canadians” which details negative social and environmental impacts of Canadian mining companies operating overseas. Canadian mining company, Boliden experiences a major mine waste spill in Los Frailes, Spain MAC launches new strategic plan to improve industry reputation MAC engages in multi-stakeholder dialogue with NGOs on protecting endangered species in Canada
1999	Mining industry focused NGO “MiningWatch Canada” is founded
2001	New Set of Regulations under the Fisheries act are published
2002	MiningWatch drives Canadian firm Talisman Energy out of Sudan with accusations that the company allowed its oil developments to be used by military commandos to attack local rebels and civilians
2004	MAC launches Toward Sustainable Mining Canadian Government warned by top bureaucrat that there is a good possibility of environmental accident involving Canadian Mining Companies operating overseas
2005	Allegations of human rights abuses with Canadian Mining Involvement in Guatemala, Peru, Romania, Philippines, Honduras, Ecuador, Bolivia, Ghana, Suriname, the Democratic Republic of Congo, Papua New Guinea, Tanzania, India, Indonesia, Zambia and Sudan.
2006	Government holds multi-stakeholder CSR Roundtables for the extractive industries which include MAC, NGOs, and other stakeholder groups
2007	CSR roundtable report urges creation of an independent CSR ombudsman to monitor Mining companies abroad and a set of norms and standards for international operations of Canadian companies abroad. Instead a CSR counsellor is implemented who aims to voluntarily settle disputes between mining firms and local communities
2009	Bill C-300—a private members bill that seeks to financially penalize companies who violate Canadian CSR norms in their internal operations—is launched by Liberal MP John McKay Court rules that pollution data from Canadian mines be made publicly available
2010	Bill C-300 is defeated 140-134 in Parliament after considerable lobbying and pressure from MAC and industry Study is leaked which reveals that Canadian companies accounted for nearly two-thirds of the 171 "high-profile" environmental and human-rights violations between 1999 and 2009 globally CSR ombudsman officially launched which fields complaints from communities affected by Canadian Mining abroad
2011	MAC Runs a series of advertisement showcasing the importance of minerals and mining in everyday activities
2012	Government reduces time for environmental approvals for big projects
2013	CSR Counsellor resigns Court rules against HudBay Minerals – which sets a legal precedent that Canadian companies can be held legally accountable in Canada for crimes committed by their subsidiaries in other countries.

To summarize, between the years 1993 and 2003 government and NGOs emerged as central challengers to the industry. Government challenges took the form of new regulations and amendments to existing regulations while NGO challenges took the form of increasing negative publicity for the industry and community-level resistance to mining projects. Public opinion of mining was negative to a degree that had not been seen before in the industry. In 1999, a survey of the Canadian public and the results showed that mining had a worse reputation than the tobacco industry – one of the most negatively- viewed industries.

The Introduction of *Towards Sustainable Mining*

As a response to these issues, in 2004 MAC introduced an initiative called *Towards Sustainable Mining* (TSM). TSM is a self-regulatory standard that seeks to address a number of social and environmental issues in the industry (see table #3). Although by definition TSM is a voluntary standard, it is mandatory for all MAC members. In other words, if a firm wishes to be a MAC member it needs to participate in the programme. Most of the well-known standards including ISO 26000, the Global Reporting Initiative (GRI), and The UN Global Compact allow companies to participate on a voluntary basis. One criticism of these voluntary standards is that the worst- performing firms will self-select out whereas the firms with the best social and environmental performance will self-select in. As a result, the objective of these standards to improve social and environmental performance may not be achieved if the commitments are not required for all firms (King & Lenox, 2000). By making TSM mandatory for all members, MAC aims to avoid these self-selection issues and improve social and environmental performance for all member firms.

In addition to being a requirement of membership, TSM has a number of noteworthy components (See table #4). First, TSM requires participating firms to commit to a number of guiding principles related to social and environmental stewardship as well as collaboration with stakeholders (see Appendix A). The crux of these principles is the alignment of social and environmental practices of mining companies with those of their “communities of interest”. Second, to implement the guiding principles, TSM includes a

suite of six performance protocols involving 23 indicators that firms use to measure their performance against. The indicators are focused primarily on management systems meaning that TSM compliance is primarily rooted in systems or processes rather than outcomes. The protocols include aboriginal and community outreach, energy and greenhouse gas emissions, tailings management, biodiversity conservation management, safety and health, crisis management, and mine closure. An example of a protocol is provided in Appendix B. MAC aims to have the protocols embedded into each of the management systems of each facility.

Table #3: Overview of *Towards Sustainable Mining Programme*

TSM Overview	
Participation	Participation in TSM is mandatory for all MAC members. Assessments are conducted at the facility level where the mining activity takes place--the only program in the world to do this in this sector. This provides local communities with a meaningful view of how a nearby mine is faring.
Requirements	Members commit to a set of guiding principles and report their performance against the program’s 23 indicators annually in MAC’s <i>TSM Progress Reports</i> . Each facility’s results are publicly available, and are externally verified every three years.
Verification	TSM includes ongoing consultation with a national Community of Interest (COI) Advisory Panel. This multi-stakeholder group helps our members and communities of interest foster dialogue, improve the industry’s performance and shape the program for continual advancement.

Verification of performance is done through a number of different means (see table #5). First, each year member companies give a self-assessment of their performance on the 23 indicators across the six protocols and assign themselves a grade from a C to AAA, which are made public in the annual TSM progress report. Second, every three years, a company undergoes third-party verification from a Verification Service Provider (VSP). In the year of external verification, mining companies must submit a Letter of Assurance from their CEO stating that the verification was conducted in accordance with Terms of Reference provided by the VSP. Each year, the Community of Interest (COI) Advisory Panel selects a sample of mining companies to participate in a Post-Verification Review. In this review, the firm will answer questions from the panel and there will be a discussion about the results of the verification. In addition, TSM is overseen by a community of interest (COI) panel which is composed of a wide range of stakeholders including representatives from social and environmental NGOs, aboriginal groups, labour

unions, financiers, economic development groups, media, and international development along with industry representatives. The COI panel was involved in the initial design of TSM as well as its ongoing evolution and implementation. The panel meets bi-annually to discuss pertinent social and environmental issues and conducts a yearly review of the performance and practices of a small sample of companies participating in TSM.

Table #4: Components of *Towards Sustainable Mining*

Commitments	When adopting TSM, the first step is to commit to the program’s guiding principles. In doing so, mining companies commit to acting responsibly by adopting social, economic and environmental practices that align with the priorities and values of their communities of interest.
Implementation	The guiding principles are backed by a suite of six performance protocols involving 23 indicators that mining company’s measure and publicly report their performance against. Companies embed TSM protocol and framework requirements into each facility’s operations and management systems.
Annual Reporting	Facilities self-assess their performance annually against each of the program’s indicators across the six protocols. They assign a letter grade to each indicator that reflects their performance, ranging from Level C to Level AAA. These grades are made public in MAC’s annual <i>TSM Progress Reports</i> . New members have three years to start publicly reporting to provide an opportunity to train staff and fully integrate TSM into their operations.
External Verification	Every three years, a company undergoes third-party verification from a Verification Service Provider (VSP). In the year of external verification, mining companies must submit a Letter of Assurance from their CEO stating that the verification was conducted in accordance with the VSP Terms of Reference. Annually, the Community of Interest (COI) Advisory Panel selects a sample of mining companies to appear before the Panel and participate in a Post-Verification Review. In this review, the verified results are discussed and the Panel asks questions about the company’s operations.
Training	MAC provides training on the TSM protocols, frameworks and guides, and ensures that the program is consistently applied across the membership – onsite at mining operations and through online training.

Table #5: Overview of TSM Verification Procedures

TSM Verification	
Self-Assessment	Every year, each facility conducts a detailed and thorough self-assessment against each protocol. Letter grades are assigned for each indicator to reflect the comprehensiveness of the relevant management system ranging from Level C to Level AAA.
External Verification	Every three years, a trained Verification Service Provider (VSP) critically reviews a company's self-assessments to determine if there is adequate evidence to support the performance ratings the facility has reported. The verifiers are experienced auditors who are independent of the company being verified. The verifiers rigorously apply the protocols and, where required, can change the ratings up or down to ensure they accurately reflect the facility's management practices and performance.
CEO Letter of Assurance	In the year of external verification, the company's CEO or most senior executive in Canada submits a letter to MAC that confirms an external verification has been conducted in accordance with the VSP Terms of Reference.
Post-Verification Review	Each year, MAC's independent Community of Interest (COI) Advisory Panel selects a sample of companies to appear before the Panel to present and discuss their TSM results. Through these discussions, the Panel tests to see whether and how facility systems are leading to performance improvement.

The Impact of TSM on the Field

The introduction of TSM has altered the industry and surrounding field in a number of ways. In addition to the practical changes that occurred—that is, mining firms collectively reporting on and being graded on sustainability-related issues, TSM also occasioned a number of shifts in the dynamics of the field. I now discuss three of the most prominent shifts in the field brought about by TSM.

From Conflict to Collaboration - One of the biggest shifts in the field engendered by MAC and the TSM program was the nature and level of interactions between incumbents and challengers. In the years before the launch of TSM in the early and mid-1990s, incumbent mining firms and NGOs were largely atomized from each other with few to little interactions. The interactions they did have were largely contentious. For instance, a strong NGO presence played a large role in the ultimate prevention of a large proposed mine at Windy Craggy in 1993. A former MAC chair recalled that “there was still a real struggle between mining companies and NGOs in terms of having completely opposite perspectives”. The nature of industry interactions with government challengers was also primarily rooted in conflict. Although MAC would frequently interact with government in a formal lobbying role, the nature of the relationship was largely non-collaborative. MAC often publically referred to the “unsupportive policy environment” that was

harming the industry in the pre-TSM years. Also during this period, MAC launched a public relations campaign called “Keep Mining in Canada” which sought to improve government support for the industry by arguing that mining companies and investment in mining were increasingly moving out of Canada for more profitable opportunities in other countries. MAC initially sought to address this issue by bringing all parties to the table in the aftermath of the Windy Craggy rejection in hopes of reducing the conflict. They organized a series of roundtable discussions over two years that became known as the “Whitehorse Mining Initiative” (WMI) that included representatives from government, NGOs, labour unions, aboriginal groups, and community organizations. From MAC’s perspective, engaging with external audiences on the strategic vision of the industry was a way to build important “alliances” with stakeholders and to “obtain several benefits, including support for more favourable policies” (MAC internal briefing). The end result of the WMI was an Accord wherein the groups agreed on a shared “vision” for the industry.

The WMI was an early form of multi-stakeholder dialogues which have become very common in the age of transnational standards around social and environmental issues (Scherer & Palazzo, 2011). However, little ultimately came of the initiative as no follow-up mechanisms were included as part of the Accord. Although some movement toward collaboration had been made between incumbents and challenger audiences, relationships once again became increasingly contentious as the industry became the centre of scrutiny because of their involvement in a number of high-profile environmental accidents. In the design of TSM, MAC sought to improve relationships between member companies and external audiences not only through improving the performance of the industry. They also wanted to include external audiences as an ongoing part of the program in hopes of avoiding the pitfalls of the WMI, which had not sustained continued interaction between industry and external audiences.

MAC’s inclusion of a community of interest (COI) panel in the’ design of TSM was their way to include ongoing interaction between internal and external audiences. In the original design, MAC stated that the purpose of the panel was:

- 1) To help the members of the Mining Association of Canada/ the mining industry more broadly and its communities of interest to improve performance of the industry, in line with the TSM Guiding Principles
- 2) To provide a mechanism for two-way dialogue between MAC and its communities of interest and for MAC to respond to issues raised by COIs
- 3) To provide input to and build understanding and support for the goals of TSM

This form of institutionalized dialogue has played a critical role in reducing contentiousness between mining companies and external audiences. It also opened up the door for more collaboration between industry and government and NGOs. For example, in 2006 the federal government engaged in a multi-stakeholder dialogue with industry, NGOs, and other stakeholders on charting out a CSR strategy for the extractive industry. Many parties involved acknowledged that it would be hard to imagine a constructive dialogue around the issues without the infrastructure put in place by TSM. The industry also began more closely collaborating with external audiences more formally. One such instance of this is the Devonshire Initiative, which is a program that pairs mining companies with development NGOs operating in communities where these companies have operations. Firms and NGOs collaborate on community development projects in these local communities aimed at benefiting both industry and local communities. In short, TSM has played a critical role in shaping how industry collaborates with external audiences.

The mining industry has increasingly acknowledged the benefits of a collaborative approach. A MAC executive stated that one of the key elements of TSM was to collaborate with external audiences “to understand what others think of us as opposed to just sort of looking internally at the industry to find out what the industry thinks of these issues”. By the late 2000s, MAC became a very vocal proponent of collaboration among industry and external audiences. For instance, the MAC President published an Op-

Ed with a prominent environmental NGO director emphasizing how multi-stakeholder dialogue around mining is “democratic, not damaging”. As stated in this piece:

The Canadian mining industry and NGOs need each other to achieve our respective goals. We're both aspiring to improve the way mining business is conducted - to reduce the risks and impacts of development, improve benefits for communities and shareholders and create favourable conditions for industry growth.

Thus, for industry the increased collaboration was viewed as a key element of the future success of the industry. Although the industry still largely participated in such dialogues on a voluntary basis and was not required to implement the recommendations of external audiences that were given during these forums, the shift from conflict to collaboration was clear.

From Divergent to Convergent Interests - The pre-TSM years were characterized by a large division in interests—both internally between MAC and its members and between MAC members and external audiences. Within MAC’s membership, the perceived fragmentation was preventing the industry from collectively responding to the threats facing the industry. As one former MAC chair recalled:

“You had a bunch of CEO's sitting around all accountable to different boards of directors, all having different pressures placed on them because of different mining interests, and you are trying to get all of these people to align on one common direction and purpose on an issue that's really new to a lot of them and that they don't necessarily understand”.

As a result, there was variation in how ‘progressive’ members were in terms of addressing sustainability issues. This variance is common in associations and presents considerable challenges in terms of organizing a collective response. As a result, it is often argued that associations cannot rise above their worst performing member in order to not alienate any members (King & Lenox, 2000). However, the process of TSM worked to bring members largely onto the same page in terms of acknowledging the

importance of addressing sustainability-related issues in order for the industry to survive. Executives at mining firms now view TSM as the “rallying cry” for the industry and the program which united members to recognize their common problems and offered them a means to address these issues collectively.

Of course, even more pronounced divergence in interests existed between the industry and external challenger audiences like government and NGOs in the pre-TSM years. Specifically, mining companies were primarily identified as engineers and geologists focused on extracting minerals. Their objective was technical in nature and was not explicitly concerned with social and environmental issues. This was not only how they were viewed by NGOs and government, but also how they primarily identified themselves. In contrast, external audiences like government and NGOs had an opposing set of interests whereby they were focused on monitoring and policing the industry. Thus, the pre-TSM years were characterized by interactions between incumbents and external audiences where these parties assumed opposing interests.

TSM however, became a forum through which incumbent firms and challengers could discuss and agree on some common objectives. In other words, TSM became an avenue to explore win/win approaches for both industry and challengers.. As stated by a former MAC president in an early address to industry in 2000 as TSM was being designed and developed:

The objective of all these efforts is to achieve a more transparent, accountable industry that visibly reinforces societal values. The way corporate social responsibility is evolving, increased transparency and accountability will be the foundations on which socially responsible corporations build their stakeholders' trust and at the same time serve their shareholders' interests. I am confident that with all our collective efforts, mining will emerge a more vibrant, competitive, future-oriented industry, one that is in greater alignment with the goals of our stakeholders and the goals of civil society.

In this statement, the MAC president makes it clear that building stakeholder trust and serving shareholders' interests are closely connected. Thus, improving the performance of the industry in terms of accountability and transparency is a means of ensuring a “more vibrant, competitive, future-oriented

industry”. This connection, he suggests, aligns the interests of the industry with external audiences. In short, the strategic framing of the business case for TSM played a critical role in the industry seeing that “what’s best for society is best for the mining industry.” This sentiment is now commonly accepted in the industry among top executives.

From Compliance to Voluntarism - A third major shift that occurred in the field that was facilitated by the introduction of TSM was a large-scale shift towards voluntary approaches to improving sustainability performance. In the early 1990s, the industry’s primary approach to social and environmental issues was through compliance with government regulations. Throughout this period, industry often criticized the “unfriendly policy environment” and the “sea of red tape” that mining firms had to navigate. With the high-profile environmental accidents that Canadian mining firms were involved in throughout the 1990s, government sought to strengthen the regulatory environment. The introduction of the Metal Mining Effluent Regulations (MMER) in 2002 was particularly noteworthy since they were specific regulations for the mining industry. In addition, proposed extensions of the Canadian Environmental Protection Act (CEPA) and more power given to the Canadian Environmental Assessment Agency (CEAA) also led to more regulatory pressure on the industry. MAC and its members felt like this increasingly rigid regulatory environment was increasingly threatening the profitability of the industry. Further, they felt that government did not have the technical expertise to effectively regulate the industry. Many industry actors believed that industry was the best equipped to improve the performance of the industry on environmental dimensions.

With the emergence of TSM, this (albeit reluctantly) compliance-based approach was the dominant approach to social and environmental issues. However, in the years following TSM, the industry began to become involved in voluntary social and environmental programs at a rapid rate. Company-wide codes of conduct and CSR programs became very common among large mining firms who prominently displayed their sustainability programs on company websites (Dashwood, 2012). This move towards voluntarism in the industry was part of a broader move towards voluntarism across sectors (Frederick,

2006); however, its diffusion in the Canadian mining industry occurred particularly rapidly in the years following TSM.

The shift toward voluntarism also occurred in government. Increasingly, government programs began to focus on encouraging companies to pursue voluntary measures to improve social and environmental performance. For instance, the multi-stakeholder CSR roundtables held in 2006 were aimed at bringing multiple parties around a table to discuss voluntary measures to improve social and environmental performance of Canadian mining companies – especially in their operations in developing countries. Coming out of the CSR roundtables was the introduction of the CSR counsellor for the extractive sector in 2009. This mandate of the counsellor was “enhanced and refocused on preventing, identifying and resolving disputes in their early stages and on working with Canadian companies to ensure CSR guidelines are incorporated in their operating approach” (Government of Canada, 2015). More specifically, the counsellor would act as a mediator between communities where Canadian mining companies operated and the companies themselves. Local communities would contact the counsellor if they wanted to file a complaint against a company operating within their communities. The counsellor would then approach the company to see if they would like to engage in dialogue with the community on a voluntary basis. What is striking about the mandate of the counsellor is its strictly voluntary approach to dispute resolution. While government is characterized by having “teeth” whereby it can induce compliance through a number of regulative mechanisms, the CSR counsellor can only ask mining companies to participate in a dialogue with local communities. If a company refuses to voluntarily participate, there are no other means through which the counsellor can entice companies to participate. Of course, government has not relinquished its formal regulatory role and still regulates the environmental performance of the industry through the MMER and CEAA. However, as the above examples illustrate, there has been a marked shift towards voluntarism on the part of government as well as industry.

The increased legitimacy of voluntary approaches to social and environmental issues has allowed voluntary measures to—in some instances—act as a substitute for regulatory measures.

Although MAC assumes regulatory compliance, they have argued that TSM provides a useful means to address areas that are “hard to regulate”. For example, they suggest that regulating Aboriginal and community outreach would be difficult for government. TSM, they suggest, provides an effective means to address these issues. In other cases, TSM has been used as a substitute for proposed regulation of the industry. In one instance, the introduction of Bill C-300 was aimed at regulating the social and environmental performance of Canadian mining companies abroad by withholding government sources of funding for any company that was found to be violating the Canadian CSR norms (as specified in the 2006 roundtables). This bill was strongly contested by MAC and more so by the industry in general. MAC staff personally met with a number of members of Parliament to urge them to oppose the bill before it entered its second reading. In personal letters to members of Parliament, MAC positioned TSM as a more effective means to address the issues the bill sought to address as highlighted in the following excerpt:

At the very core, Bill C-300 is based on the principle of a legislatively constructed 'accountability' function and we do not agree with such a construct. We accept a policy based approach as per the Advisory Group report and the subsequent government response. MAC member companies remain committed to strengthening our own commitment to CSR through our Towards Sustainable Mining (TSM) initiative. As you may be aware, all members of MAC subscribe to TSM guiding principles, a set of commitments that address all areas of our industry's performance. TSM is about improving our reputation by bettering our performance. Recently, the Canadian Business for Social Responsibility profiled 11 different international frameworks and ranked TSM best in class. We remain committed to working in good faith with the government and other interested parties in supporting a policy framework that would enable improved industry performance and provide capacity building for developing countries. We urge you to oppose Bill C-300 and focus on delivering on the recommendations of the National Roundtables on Corporate Social Responsibility Advisory Group report and the Government of Canada's subsequent response.

As shown in this excerpt, TSM was proposed as a substitute for regulatory measures. The legitimacy of voluntary measures and programs likely made government actors more amenable to TSM as a possible substitute for formal regulations around social and environmental issues.

To summarize, the introduction of TSM occasioned a number of notable shifts in the field. These shifts had implications for the regulatory, normative, and cognitive realms. For instance, the shift from a compliance-based approach to a voluntary-based approach to sustainability modified the regulative structure of the field as mining firms played a more active role in addressing areas traditionally reserved for government. Further, the shift toward collaboration in the field changed institutionalized norms about how incumbent mining firms interacted with challengers. Finally, the shift from divergent to convergent interests altered taken-for-granted cognitive assumptions about the interests and intentions of incumbents and challengers. These shifts are both readily acknowledged by the vast majority of actors in the field.

Research Design

I chose a longitudinal single- case study as the method in this research for a number of reasons. First, there has been very little research that has examined trade associations in depth (Barley, 2010; Barnett, 2013). Indeed, Barnett suggests that “qualitative studies may be necessary to observe and understand the actual mechanisms” operating in trade associations and that “it would be particularly insightful to directly observe trade-association activity through field studies” (2013: 230). Although numerous studies of institutional evolution and change in fields defined by contested issues have used a case-study approach (e.g. Maguire & Hardy, 2009; Zietsma & Lawrence, 2010), few studies of trade associations have done so (see Greenwood et al., 2002 for a case study focused on a Professional Association). Second, case studies are useful for investigating process-based research questions that are interested in the “how” and the “why” (Yin, 2009). Moreover, case studies are highly sensitive to context event sequence (Pettigrew, 1990) which is of particular importance in understanding the evolution of an organizational field over time (Langley, 1999). Third, the inconsistencies in the current literature on

the role of trade associations in institutional change suggest that theory in this area needs further development and case studies are well suited from which to build theory (Eisenhardt, 1989).

I chose the 20-year period between 1993 and 2013 for several reasons. First, because TSM and the sensegiving around it is the focal point of my analysis I wanted to adequately capture the period of time before its introduction and after its launch. I chose 1993 as the start date of my data collection because it has been identified as the year of the formation of the field around sustainability in the industry. In 1993, MAC organized what was to become known as the Whitehorse Mining Initiative (WMI) which was the first multi-stakeholder dialogue on social and environmental issues in the Canadian Mining industry. It included representatives from MAC, member firms, government, NGOs, aboriginal groups, and labour organizations. Accordingly, since this has been called the key event in the formation of the field surrounding sustainability in Canadian mining, it was an appropriate starting point for data collection.

Data

This study draws upon multiple sources of data to paint a rich picture of the institutional evolution of the organizational field surrounding sustainability in Canadian Mining. Each of these will now be discussed in more detail.

Interviews – I conducted 102 semi-structured interviews with key members of the organizational field surrounding the issue of sustainability in Canadian mining. Each interview was recorded and transcribed. The average length of the interviews was 61 minutes. Because respondents are different in terms of position in the field (e.g. MAC staff, incumbent, challenger), the interview protocol differed depending on the respondent. For former and current MAC staff, the questions were focused on how TSM was communicated to members and external stakeholders and how MAC sought to ‘sell’ TSM to these audiences. I also asked questions about the key rules, norms, and understandings in the field; how they had changed and evolved over time and what were the triggers for these changes. For other respondents (e.g. MAC members, government, NGOs), questions were focused on their interactions with MAC and TSM, how MAC communicated TSM to them and how it evolved over time. One of the challenges of

interview data is to avoid biases that can be present when people reflect on events and their role in them. These can include a bias towards social desirability (Zerbe & Paulhus, 1987) or a bias that stems from retrospective sensemaking (Eisenhardt & Graebner, 2007). To mitigate this threat, I conducted interviews with a diverse set of actors in the field – often with diverse views, interests, and perspectives (Eisenhardt & Graebner, 2007). In addition to interviewing individuals from MAC, I also interviewed member and non-member firms, government representatives and regulators, social and environmental NGOs, actors from trade associations, consultants, lawyers, investors, other industry actors, and ad hoc organizations. Table #6 provides an overview of these interview sources.

Table #6: Overview of Interview Data

Actor	Organizations	Total Number
MAC	<ol style="list-style-type: none"> 1. Staff (14) 2. Community of Interest Panel (9) 3. Board of Directors (3) 4. Chairs (6) 	32
Incumbents firms	<ol style="list-style-type: none"> 1. MAC Members (22) 2. Non-Members (2) 3. Exploration (4) 	28
Government and Regulators	<ol style="list-style-type: none"> 1. MP (6) 2. Assistant Deputy Minister (5) 3. CSR Councillor (1) 	12
NGOs	<ol style="list-style-type: none"> 1. Industry Watchdogs (7) 2. Industry Collaborators (3) 	10
Investors	<ol style="list-style-type: none"> 1. Pension (1) 2. Mutual Fund (1) 	2
Consultants and lawyers	<ol style="list-style-type: none"> 1. Lawyers (2) 2. Consultants (4) 	6
Other Trade Associations	<ol style="list-style-type: none"> 1. National (6) 2. International (2) 	8
Other	<ol style="list-style-type: none"> 1. Academic (2) 2. Ad hoc organization (1) 3. Socially Responsible Investment (1) 	4
Total		102

Archival Documents – In-depth interviews, while valuable, are always at risk of biases that emerge from retrospective sensemaking. Because this study was focused on examining MAC’s strategic framing to internal and external audiences, it was necessary to have access to these communications. To achieve this objective, I examined the full internal archives for the Mining Association of Canada between the years 1993 and 2013. The archives consisted of all of their internal and external communications over the years (see Table #7). Internal communications were in the form of briefing notes to the board of directors and member firms, reports for members, speeches at AGMs, and meeting minutes. External communications targeted towards government, NGOs, and the public consisted of press releases and Op-Eds, personal correspondence and letters, and public speeches. Table #7 provides an overview of these sources. The MAC archives consisted of over 5000 pages of archival materials. In addition, I collected archival materials from outside of MAC as well (see table #8). This consists of media coverage of MAC over the 20-year period. Using the Factiva database, I conducted a search of “Mining Association of Canada” in over 100 English language Canadian newspapers. This resulted in 485 articles. I also searched for relevant articles in the industry’s top trade journal “the Canadian Mining Journal”. A search of this journal using the Proquest database produced 52 relevant articles. I also collected a number of publically available Government, NGO, and consultant documents related to the Canadian Mining industry.

Table # 7: Overview of MAC Archives

Data type	No. of Documents
Briefing Notes	686
Meeting Minutes	169
Reports	65
Speeches	75
Press Releases/Op-Eds	195
Letters	48
Total	1238 documents

Table #8: Overview of Additional Archival Documents

Other Archival Documents	No. of Documents
Media – All articles 1993 – 2013	437
Trade Journal articles 1993 - 2013	54
NGO Reports	3
Government Reports and Legislation	41
Consultant Reports	38
Total	573 documents

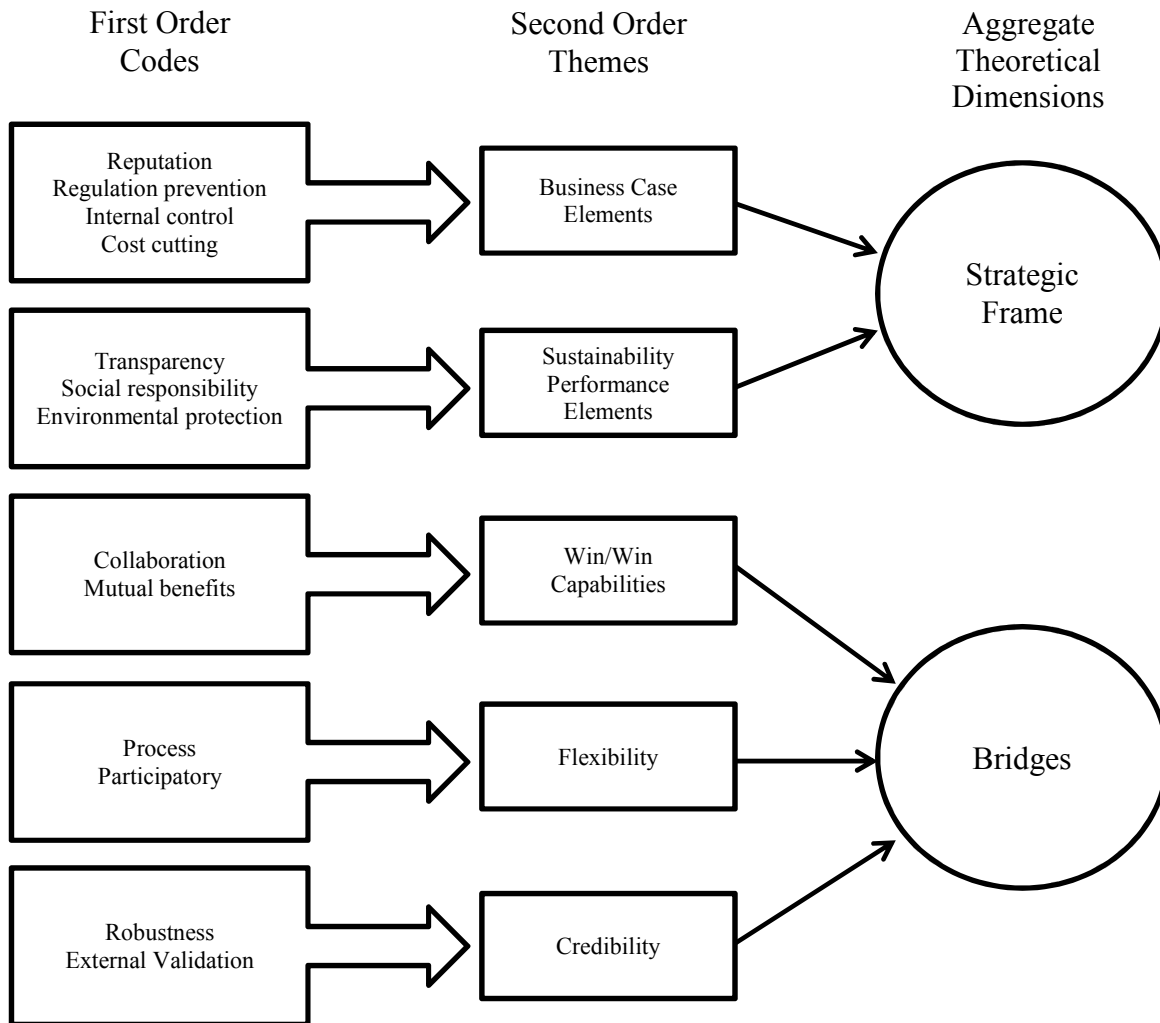
Data Analysis

Drawing from insights from Langley and colleagues for the analysis of process-based data, (Langley, 1999; Langley, Smallman, Tsoukas, & Van de Ven, 2013) I analyzed the data in a number of stages. In the first stage, I read through all the data and created a detailed event-history database (Van de Ven & Poole, 1990) using the interviews, archival sources, and observations to document the sequence of events, activities, and changes that took place in the industry from the perspectives of different actors (Maguire & Hardy, 2009). This process ensures a detailed narrative of the case and provides an in-depth account of “who said/did what, and when” (Maguire, 2004). In this process, I was better able to gain an understanding of which actors played the roles of incumbents, challengers, and intermediaries in the field. Incumbents consisted primarily of MAC members since MAC members constitute virtually all of the large mining firms with operations in Canada. Challengers in the field were predominantly comprised of actors from government and social and environmental NGOs. MAC was viewed as the dominant intermediary organization between these two groups. There were a number of other actors included in my sample of the field including investors, consultants, academics, and lawyers, but their roles in the field were not of challengers, incumbents, or intermediaries. However, their views were particularly important since they could add insight into the interactions between incumbents, challengers, and intermediaries from the outside looking in while still sharing the common norms and assumptions of the field.

In the second stage, I categorized the data in QDA Miner on a number of broad dimensions. For every document, I created a variable for the source of the data (e.g. MAC, government); the type of data (briefing note, speech, etc.); the year it was created, and the audience it is targeted towards (e.g. government, NGO, members, etc.). This was a necessary step in order to later located differences in language, rhetoric, and framing aimed at different audiences.

In the third stage of analysis, I began my coding procedure which is displayed in figure #3. I first read through the data and coded all the discussion around TSM. I used an open coding strategy (Strauss & Corbin, 1998) and arrived at a total of 13 preliminary coding categories. These included such codes as reputation, social performance, environmental protection and prevention. After examining the data, it became clear from the coding process that the central focus around TSM was actors in the field either justifying it or contesting it. Based on this hunch, I returned the data on how change is justified and contested and began to reading about framing in general and the strategic framing of change in particular (Cornelissen & Weber, 2014). Drawing from studies in the area (Fiss & Zajac, 2006; Werner & Cornelissen, 2014), I began to see a strong connection between the debate around TSM and the literature in this area. In particular, I observed that TSM appeared to be justified differently to internal and external audiences. I therefore aggregated my open codes into two framing categories of TSM: business case and sustainability performance frame. The business case framing of TSM involved the justification of TSM as a means of improving financial performance in some way (i.e. improving reputation, decreasing costs, preventing regulation) whereas the sustainability performance framing of TSM involved justifying the programme on the grounds of it improving performance on sustainability related dimensions.

Figure #3: Coding Structure



In the fourth stage of analysis, I re-entered the data to look within these broad strategic frames. After exploring the data, I noticed that different aspects were being made salient in MAC communications between the strategic frames and over time. Following work on salience in framing research (Entman, 1993) which argues that framing involves selecting some aspects of reality and making them more salient in a communicating text, I open-coded the data according to what aspect of TSM was made most salient in the communication. I arrived at 14 codes which I then aggregated up into three thematic categories including capability, permeability, and credibility.

What was notable about these categories above is that they appeared to shift over time and depending on the targeted audience. Thus, in the fifth stage of analysis, I returned to the data to search for why the salience of the frames had appeared to evolve over time. After re-reading the data and earlier coding categories, I noticed connections emerging between the justifications for TSM. For example, within the business-case frame, I noticed that MAC often internally communicated that TSM was the right business decision because improving performance would improve reputation which would, in turn, have a positive effect on the profitability of the firm. Following this hunch, I then re-immersed myself in the data to observe the key linkages being built by MAC in their justifications of TSM. I observed four dominant linkages underpinning the strategic frames including sustainability performance/reputation, internal control/sustainability performance, process/performance, and internal control/financial performance. Once I had found the four linkages in the justifications for TSM, I used QDA software to analyze the relationship between linkages, the broad strategic frames and the concepts that were made salient within the frames. I then examined the interrelationships between these levels to uncover how linkages and bridging were used to support each of the dominant frames. This was a particularly important stage in the data analysis since it was here that I observed that the broader strategic frames justifying TSM were being supported by conceptual linkages (e.g. sustainability performance/reputation) and that at different points different concepts were being made salient as a way to bridge conceptual linkages (e.g. reputation→ credibility→ sustainability performance). I thus labelled these as “bridges”.

Finally, in the sixth stage of analysis I compared the thematic categories across time to capture how the strategic framing of TSM evolved over time and between internal and external audiences. After analyzing my codes longitudinally, it became apparent that at different points, there was contestation focused on the conceptual linkages underpinning the strategic frames which facilitated TSM. In response to this contestation, MAC employed bridges to help establish links between the concepts. This process was evident both before the launch of TSM and after its launch; however, the conceptual linkages, bridges employed and the resultant meaning associated with the strategic frames varied over time. In other words,

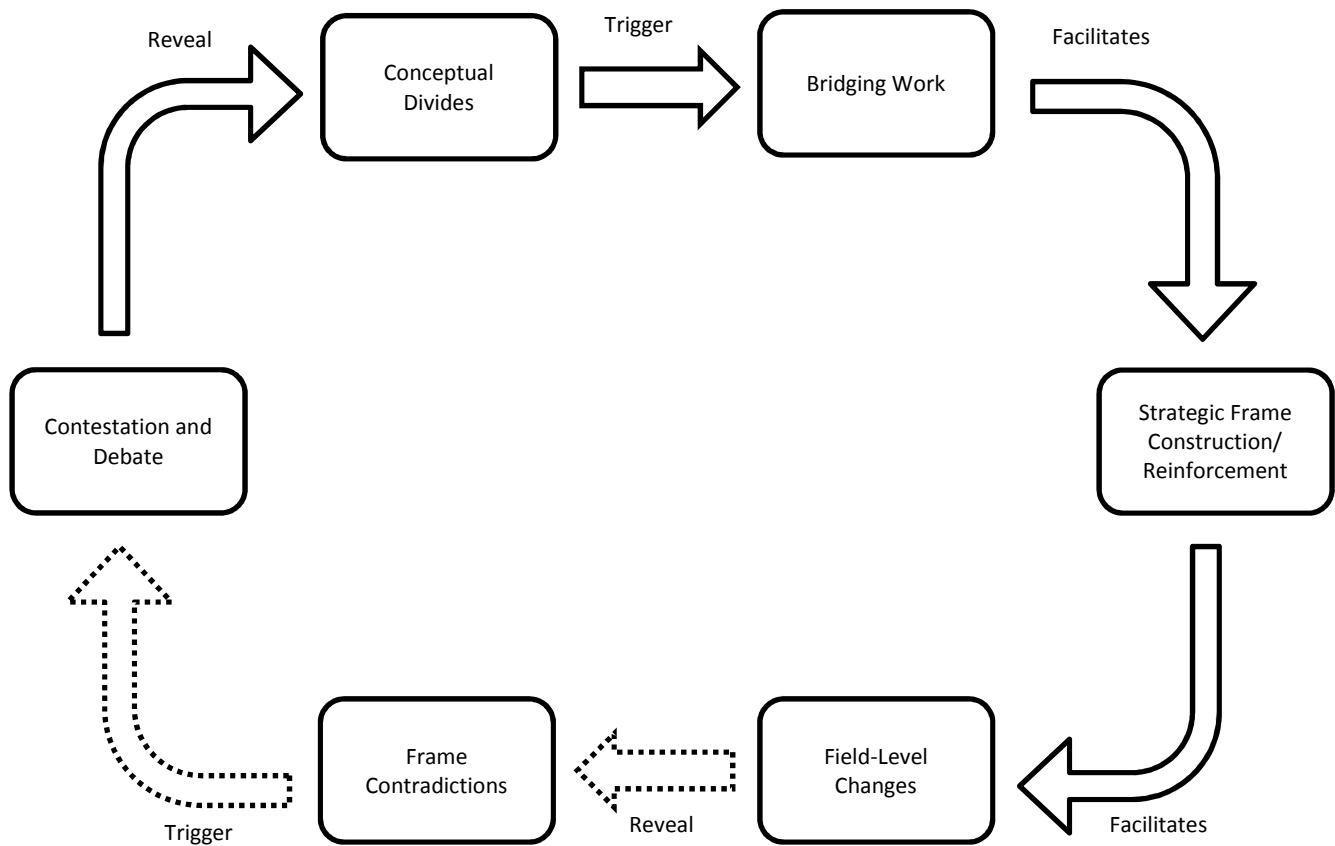
when comparing the coding over time, I was able to observe a similar process of strategic framing across time and audiences; however, the specifics of the process differed. I was thus able to craft an in-depth process story of the role of strategic framing of field-level change by highlighting the interactions between MAC and internal and external audiences.

FINDINGS

Strategic Framing via Bridging Work and the Institutionalization of *Towards Sustainable Mining*

In this section I trace the development of the TSM program from its initial inception to its eventual institutionalization in the field. In doing so, I demonstrate how strategic framing is used by trade associations in field-level change and highlight the critical role of *bridging work* in this process. The recursive model I present in figure #4 illustrates this process. As this figure shows, contestation and debate between a TA and internal and external audiences reveals *conceptual divides* within these audiences. These conceptual divides trigger bridging work on the part of the TA. I define bridging work as actions which are aimed at creating linkages between concepts that are disconnected in a particular audience. As I demonstrate, bridging work links two disconnected concepts by inserting a “bridge” between these concepts that mediates and thus links the two concepts. By linking two disconnected concepts for audiences, bridging work facilitates the establishment of strategic frames which support a field-level change. However, the model also shows that once field-level changes are introduced, contradictions in the strategic frames underpinning the change may be revealed. This triggers additional contestation and debate which reveals new conceptual divides and requires additional bridging work.

Figure 4 – A process model of the strategic framing of change via bridging work



In response to internal and external contestation in the pre-TSM years, I show how MAC used bridging work to establish two strategic frames that were used to support the launch of TSM with internal and external audiences. For internal audiences MAC constructed a *business case frame* which made salient how and why TSM was a viable business decision for their members and the industry. For external audiences, MAC constructed a *sustainability performance frame* which made salient how and why TSM was an effective means to improve the social and environmental performance of the industry. The establishment of these strategic frames facilitated the successful launch of the TSM program. However, the launch of TSM and the field-level changes it occasioned revealed a number of contradictions with the established frames. This triggered more contestation both internally and externally which then revealed new conceptual divides and required new forms of bridging work on the part of MAC. The bridging of

these conceptual divides further reinforced the strategic frames that MAC had established and helped to institutionalize TSM in the field.

I present the findings in the following manner. First, I illustrate the internal dynamics between MAC and its members (i.e. internal audiences) in the years leading up to TSM (1993 – 2003) and the years following its launch (2004 – 2013). Second, I illustrate the external dynamics between MAC and challengers (i.e. external audiences) in these two time periods. Visual displays of these internal and external dynamics are presented in Appendix D and Appendix E. Table #9 provides an overview of these two stages in terms of the strategic frame being established or reinforced, the focus of contestation, the conceptual divides present in external and internal audiences, and the “bridge” that was used by MAC to bridge the conceptual divide.

Table #9: Overview of Internal and External Strategic Frames over Time

	Pre-TSM Launch: 1993 - 2003		Post TSM Launch: 2004 - 2013	
Focus	Internal (Incumbents)	External (Challengers)	Internal (Incumbents)	External (Challengers)
Strategic Frame	Business case	Sustainability performance	Business case	Sustainability performance
Framing Stage	Establishment	Establishment	Reinforcement	Reinforcement
Focus of contestation	Symbolic vs. substantive response	Internally vs. externally controlled approach	Burden of program vs. robustness of program	Outcomes of program vs. process of program
Conceptual Divide	Sustainability Performance and reputation	Internal control and sustainability performance	Internal Control and financial performance	Process and sustainability performance
Bridge	Credibility	Win/Win capabilities	Flexibility	Credibility

Internal Dynamics: 1993 - 2003

Contestation and Debate - TSM was by no means an obvious or simple response to the issues facing the industry for MAC members. While member firms acknowledged that the profitability and survival of the

industry were being threatened by government and NGOs, they initially viewed the requirements of a program like TSM as too onerous for members. As one MAC executive noted:

“If I said in 1999 to the board that what we're going to do is we're going to develop a performance measurement system. You're going to report on it annually and every three years you're going to be subject to third party verification oh and by the way we're setting up a national advisory panel involving organized labour, first nations and NGOs, they would've shown me the door.”

MAC board meetings in the late 1990s were the centre of internal contestation around how the industry should respond to the pressure from the public, government, and NGOs. There was a strong culture in the industry of expertise where miners viewed themselves as being largely impervious to external criticism since they knew their business better than external actors. As a result, the collaboration and “opening up” that a program such as TSM involved was not greeted positively by many members initially. As one board member recalled of his view at the time:

My view was this is none of anybody's business. These are issues that pertain to us as an industry. We're miners. We can manage these things. The right course of action I thought was for companies that ... I still hold this view which is companies that don't manage their business well should not be in business. The market should be efficient. The market should take care of them... screw those people, those activists. This is a reaction. This is a very socialist response to some short-term pressures that we're being subjected to.

Similar views were common among MAC members in the 1990s. However, the pressure on the industry was undeniable and members increasingly turned to MAC so the issue could be addressed collectively. The conversation at MAC board meetings began to focus on what the industry response should be.

For both MAC and member firms the response needed to achieve the fundamental objective of improving the reputation of the industry. While reputation is important for every industry (Barnett &

Hoffman, 2008), they are particularly important in the mining industry because it requires government and community approval before a mineral deposit can be extracted (Dashwood, 2012). This differs from non-extractive industries which do not require such a “social licence to operate” (Prno & Slocombe, 2012). The declining reputation of the mining industry, it was understood, was the main contributor to the dropping profitability of the industry. A former MAC Chairman from this era recalled that the “industry had to do something to boost its credibility” since “shareholder values were dropping all over the place and the mining industry was losing credibility at a rapid rate”.

In addition to getting the industry out of its dire financial situation, improving the reputation of the industry was viewed as a way to prevent government regulations that were increasingly being introduced. Most notably, the introduction of the Metal Mining Effluent Regulations (MMER) intended to monitor and control the amount of mining effluent released into the ecosystem as well as proposed additions to the Canadian Environmental Protection Act (CEPA) were viewed by MAC and its members as a threat to industry profitability. As a former MAC board chairman recalled:

I sat down with (MAC president) and other directors and said, “Guys, we don't like regulation and all this kind of stuff, but look at the stuff that's going on around us. If we don't do something to separate ourselves from the bad actors, we just automatically get thrown in the same pot, so we need to do something.

Although there was a general consensus between MAC and its members that the response needed to improve the industry’s reputation, there was considerable disagreement between MAC and its members on how to achieve this objective. MAC board meetings thus became forums to discuss possible responses. The initial view held by board members was that the key issue to be addressed was related to public education and communication. That is, they believed that external audiences did not fully understand the importance and objectives of the industry to Canada. As described by individuals who participated in these meetings:

Quite frankly that was probably the majority view of things. "Why doesn't the public love us? They just don't know us. They just don't understand us." "If only the public understood us better we wouldn't have these problems, so let's do an advertising campaign and tell them who we are and what we're about." (Former MAC Chairman)

"The typical response from the industry has always been, we just need to tell people our story better. We need to help them to understand why they need the commodities that we produce for their everyday lives, and they'll understand that and let us do our business." (MAC Executive)

This sentiment— that the industry needed to tell its story better— led some board members to believe that the correct solution would be to run an advertising or public relations campaign to improve the industry's reputation. Responses like these are common in industries seeking to improve their reputation because, as one consultant involved in TSM suggested, "they can see where their money's being spent" and "there's nice pictures in the Globe & Mail even though it doesn't reach who your key constituents are".

Conceptual Divide – Underlying the debate about whether the appropriate response to the issues facing the industry was a public relations campaign or something more substantive was a broader disagreement between MAC and its members about the most effective way for the industry to improve its reputation. MAC executives were sceptical about a public relations or advertising campaign since such a response may be seen as window dressing and not have the long-lasting positive effect on industry reputation that was necessary. As a former MAC executive recalled:

"There was the view of, "Well, I'm not sure this is a communications issue at the heart of this" and when we looked at communications side, there's lots of evidence on, you could spend money on advertising programs. Often, as soon as you stop spending on the advertising indications, everything reverts to the default position of where it was.

Member firms did not initially share this view and viewed a public relations campaign as equally or perhaps more effective than a performance-focused response. Thus, this debate and contestation around

TSM revealed that member firms did not see a clear link between improving reputation through improving sustainability performance. As a result of this conceptual divide, member firms were hesitant to incur the costs associated with the kind of response that MAC executives were suggesting since they did not view a response of this nature as the most effective way to improve the industry's reputation. MAC executives, on the other hand, were confident that the problems facing the industry would not be adequately addressed through an advertising and/or public relations campaign, and were motivated to persuade members that a more robust response was needed if the industry sought to improve its reputation. As one MAC executive recalled:

“We have a real problem here. Canada is losing out to other jurisdictions, and its competitiveness has tanked in recent years. We need the public to help us, to help the people in power to act.” I don't know how effective a PR campaign where it's like, “How do we change people's opinions?” You can only change people's opinions or views on you to be positive if you're acting in a way that warrants that change. To me, it has to be based on what the industry is doing in any given thing to be able to actually effect change.

As the above quote indicates, MAC believed that the industry needed to act in a “way that warrants” a positive view from the public. In other words, MAC believed that the most effective way to improve reputation is through improving sustainability performance. Thus, for MAC to persuade members to pursue a more substantive response, member firms would need to see a clear link between these two concepts. Although MAC was ultimately accountable to its members and very much viewed itself as a voice of its members, rather than simply acquiescing, MAC staff along with a small group of sympathetic CEOs of member firms continued to explore ways to link sustainability performance and reputation for all member firms.

Bridging Work - MAC suggested to member firms that before substantial financial resources were put into a campaign of this nature, there was more learning to be done on the part of the industry. In 1999 MAC hired a research firm to conduct a survey of the Canadian public in hopes of understanding why

public support for mining was so low. The results of the survey were striking. Surprisingly to the MAC board, the Canadian public appeared to know the industry “much better” than they had expected. The public generally understood and appreciated the importance of mining, but had a number of concerns with the social and environmental performance of the industry. The takeaway from this external opinion was that an advertising or public relations campaign would not sufficiently address the concerns of the public, government and NGO challengers. In light of the research findings, MAC members slowly began to acknowledge that the problem was not as simple as initially suspected. The survey results were the first suggestion that the root of the reputation problem for the industry stemmed from poor performance on sustainability-related issues as opposed to lack of education of the public. From here, MAC executives aimed at developing a clear link between sustainability performance and reputation. As part of their strategic review, MAC brought in an outside consulting firm who had previously worked with the chemical industry in their creation of the Responsible Care Programme. They became instrumental in establishing the link between sustainability performance and reputation. As recalled by a member of the consulting firm:

Our whole approach was you've got to ... You can only enhance reputation of the industry through tangible improvement and performance, and then credible communications about the performance improvement. It was only with those two factors that you're going to be able to lift the reputation.

Indeed, MAC made a clear statement to members that improved reputation would only be possible with improved performance as observed in this internal briefing to members:

Membership understands that it is impossible to improve image without changing performance. Image is not simply a communications program or simply telling your story better. We have real challenges in improving our environmental performance and responding to the challenges of sustainable development.

With this in mind, MAC executives, along with the input of these members, began crafting a more substantial program as a response.

Because MAC clearly acknowledged that getting members on board with a more substantive response would require creating a clear link between sustainability performance and improved reputation, they went about bridging the two concepts by making salient the mediating role of *credibility* between sustainability performance and reputation. That is, for the industry's reputation to be improved, the response would need to be viewed as credible by external audiences. In order for the response to be viewed as credible, it would have to be performance-focused. By using credibility to mediate the relationship between sustainability performance and reputation, MAC could more easily bridge the conceptual divides of member firms. The importance of credibility as a mediator between these concepts can be observed in the following MAC internal briefing:

TSM, as a stewardship initiative, aims to sustain the industry's role as a leading economic player by increasing public trust in its ability to manage the environmental and social issues important to Canadians. Part of that public trust is derived from public reporting and transparency. Verification can contribute to achieving these TSM goals. The challenge for MAC is to develop a verification program that is practical, cost-effective and can be implemented by member companies. At the same time the program must be credible and pro-active, and help develop and maintain public trust.

As this statement suggests, for TSM to successfully improve the reputation of the industry, it needed to be viewed as a substantive means to improve sustainability performance. Thus, for MAC members, the relationship between sustainability performance and reputation was mediated by the credibility of TSM. Many of the defining features of TSM resulted from the salience given to TSM's credibility. For example, the requirement of TSM being mandatory for all members instead of voluntary was very much a reflection of the initiative needing to be viewed as credible by challengers. Similarly, the external verification feature of TSM, it was argued, was also required if the initiative was to be viewed as credible. Because the

credibility of the program had been linked with improved reputation, board members were more willing to accept these requirements—that that posed financial costs and burdens related to transparency—on the companies.

To summarize, the initial contestation around TSM between MAC and its members was centred on the most effective means to improve the reputation of the industry through symbolic or substantive means. This contestation revealed a conceptual divide between reputation and sustainability performance in these audiences. By making salient the credibility of the TSM program in order to bridge this conceptual divide, the business case framing around TSM became more resonant for these audiences.

Internal Dynamics: 2004 - 2013

The Construction of the Business Case Frame and the Launch of TSM – The importance of the bridging work done to create a link between sustainability performance and reputation was that it enabled TSM to be framed to member firms in terms of its business case. By framing TSM this way to members, they were more willing to devote the financial resources to the program and actively become involved with it. As stated in the TSM primer to members:

TSM was born out of a need to improve performance and manage risk and, in so doing, to improve the mining industry's reputation. There are many reasons why addressing social, environmental and community issues is good for mining companies.

- 1) Performance improvement: The purpose of TSM is to drive performance improvement in each indicator area.
- 2) Risk management: TSM gives MAC members a way to understand and manage risk, reduce avoidable losses, identify newly emerging issues and use leadership positions to gain competitive advantage by influencing new regulation.
- 3) Access to capital: Institutional investors believe that social and environmental risk management can greatly improve a company's long term market value. The investment community increasingly regards corporate social responsibility programs, such as TSM, as a sign of a company's "quality of management."
- 4) Social licence: Through TSM, MAC members can influence the attitudes and perceptions of their communities of interest, thereby building trust and using the benefits of positive relationships to deliver a business advantage.

5) Recruitment and retention: Most people want to work for a company whose values are consistent with their own, and there is growing evidence that more people want to work for responsible organizations. TSM helps companies attract and retain a talented and diverse workforce.

6) Innovation and learning: TSM stimulates innovation and learning within companies by helping to identify new market opportunities, establish more efficient business processes and maintain competitiveness.

The above demonstrates the business case strategic framing of TSM and also highlights the impact of reputation on performance. It should be noted that the articulation of the business case frame for TSM was resonant with member firms because MAC had established a clear link between reputation and sustainability performance.

TSM was rolled out slowly in 2004. MAC made a concerted effort not to draw much attention to TSM in its early stages. Although this might seem antithetical to TSM's objective to improve the reputation of the industry, MAC chose a less publicized initial roll-out for two reasons. First, MAC wanted to make clear that TSM was not a shallow PR campaign that ultimately would have little bearing on industry performance. As one MAC executive put it:

When TSM was launched in 2004 there was a very conscious decision not to trumpet it publically, to sort of keep it close to ourselves. This was not a PR campaign. We didn't have much performance to show for it yet so we didn't want to talk too lofty about it.

Second, MAC was not sure how their members would initially perform on the TSM dimensions and wanted to prevent any negative attention that would come if members did not score well. The MAC president recalled that they wanted to "keep quiet about it until we felt the system was up and running and effective".

Once TSM was fully running and initial fears about potential negative performance of members were quelled, MAC focused on reinforcing the benefits of TSM in internal communications to members. In the pre-TSM years, MAC had constructed an initial business case for TSM that focused on improving reputation and preventing additional regulations. In the years following the launch of TSM, the

improvements in reputation moved to the forefront of internal communications. MAC no longer had to make a case for why TSM would improve reputation; instead, it would simply state that the reputation of members was improved as a result of the TSM program. Internal communications would state:

“The mining industry is seen as a responsible actor committed to sustainable development in Canada and globally”

A statement like this would not be an uncontested statement among members before the launch of TSM.

Contestation and Debate - By the mid-2000s the majority of MAC members generally equated TSM with improving the reputation of the industry. However, as members firms started to more fully engage with the program, MAC started to receive feedback on TSM – some of which was negative. In particular, many viewed certain elements of TSM—most notably the reporting the programme required—as burdensome and as not adding value to their firms. The tension between member demands to reduce the burden of TSM with the desire by MAC for TSM to be considered robust came to a head when one large member company refused to participate in one aspect of the TSM program. As one actor who was involved in these discussions recalled:

They (MAC) came close to losing (large MAC member company) at one point around the TSM piece and that was a real shock but I was in the room on several occasions when that tension between (large MAC member company’s) demands and concerns about the auditing burden of TSM and their willingness to implement the biodiversity standard was there and people (MAC executives) were pushing back and saying, "Well, if you don't do the biodiversity and this other stuff, you're not doing TSM. If you're not doing TSM you can't be a member, and we can't *not* have you be a member, so we need to keep talking about this. We can't roll back the standard if it's there already. We've already decided. It's released. It's there. What are we going to do?" These things do play out in the real world and the tension is tough because people imagine what would have happened if somebody like (large MAC member company) walked away from MAC. So that tension is real.

MAC executives had to decide if they were going to acquiesce to the member firm or insist that they completely adhere to the TSM protocols in order to stay a member of MAC. In the end, MAC did offer relief to the member company⁸. As one MAC executive recalled:

We made a compromise so part of the issue was around burden and we are very sensitive to the burden that TSM does not add a lot of burden but it is an incremental addition. We are very sensitive to that and we altered the reporting framework. Previously every company reported against, they did a self-assessment every year against all the protocols regardless of where your scores were and every third year you verified. Now as a result of this change if you have achieved an A or better on all the indicators in a particular protocol then you can voluntarily choose to not conduct your self-assessments in the two years between the verifications.

This example highlights the nature of the internal contestation in the years following TSM's launch. Specifically, there was increasing tension around the burden of TSM on member companies and the requirements of TSM. This placed MAC in a difficult position whereby they needed to balance the external demands for robustness with the demands of incumbents who did not want to be overburdened by a program that could not be directly connected to short-term financial performance.

Conceptual Divide – Underlying the tension between MAC and its members around the burdens of TSM was a broader issue regarding how members made sense of the of the business case for TSM. Namely, although member firms believed that TSM improved the reputation of the industry, the financial benefits from the improved reputation were not easily observable to individual MAC members. Because members could not easily quantify the benefits of TSM, the costs of implementing TSM became hard to justify for some members. Consider the description of why a member company was resisting implementing the full TSM program:

⁸ In response to concerns raised that this would set a precedent for MAC members unhappy with the requirements of TSM to simply refuse to participate, MAC introduced the process for a disciplinary mechanism for members that did not fully participate in TSM. Under the new process, if a member firm refuses to report on any TSM protocol, there will be an “iterative process” that aims to get the company reporting. If this is unsuccessful, there is a mechanism for the executive committee to review the circumstances of the dispute and potentially make a recommendation to the board asking the member to leave MAC.

Last year we ran into an issue where one of our companies, one of our members said we are not going to report against biodiversity, safety and health, these were the two new protocols that were phasing in over time and this was the first year we were going to have aggregate reporting in the annual progress report. This company said no, we don't think that these two protocols add any value to our business so we are not going to do them.

For member companies, it was a necessary that TSM “added value” to their business. Much of the resistance in the years following its launch centered on this notion. As one executive from a member company recalled regarding initial resistance to TSM:

I'd say middle management, there were some pushback I could say in the early days. It was not clear to all that this was a value adding exercise.

Another executive in charge of implementing TSM described his role in the years following its launch:

How do I manage it? Well, mostly I nag. On rare occasions, I've had to go over their heads. Generally I get the stuff that I need from them but it does take some pushing more so with some people than others. I don't know that they necessarily say it's a complete waste of time. I would say I have a lot of other tasks I need to be doing and this is just another one. If I had more time I might be able to put more effort into it and actually see the value. I think that's a large part of it.

These examples display that conceptual divide that existed for MAC members between TSM and financial performance in the years following its launch. As they explicitly show, TSM was not viewed by many individuals as adding value to the company. Although members viewed TSM as a means to improve reputation, there was difficulty implementing the program on the ground because the financial benefits

associated with TSM were not observable in the day to day running of TSM. As a result, the long-term viability of TSM was being increasingly questioned.

Bridging Work - The need for TSM to be viewed as a worthwhile endeavour for members placed considerable pressure on MAC in the years following its launch to ensure that there was a strong link between TSM and financial performance. As a result, MAC made a distinct shift in its internal communications to actively bridge the TSM and financial performance. Take the following statement from a MAC internal memo in 2009:

“Although not widely recognized by the general public, TSM is increasingly recognized among key stakeholders. MAC is being approached on a regular basis by NGOs looking to collaborate with the association on issues related to CSR, which in part is because of TSM. The initiative is also generating interest among financial analysts, such as Sustainalytics, NEI Investments and the Caisse de Depot. TSM is clearly starting to deliver reputational benefits for MAC and individual members.”

As this statement highlights, the “reputational benefits” from TSM include interest from the investment community and increased NGO approval. MAC clearly notes these as “financial benefits” flowing from TSM. Central to the financial benefits of reputation were the articulations between reputation and investment community. As a former MAC executive recalled:

“Financial analysts are starting to pay attention to CSR in a very significant way and in actual fact companies are deriving a valuation benefit for commitments in this area. There is lots to work on out there and there is growing positive feedback I think for industry... You must be committed to these environmental and social issues going forward or you will lose projects.”

Thus, in order to secure investment for mining projects, MAC suggested, the company must be seen as having credible and measurable social and environmental performances and TSM provided a means to

accomplish this. Additionally, it was suggested to members that TSM was improving the mining industry in the eyes of government which was helping to speed up the approval process of mines and thus reduce the financial burden on mining companies. As one MAC executive recalled:

“We're much more in vogue than we used to be and I think TSM has also contributed to a better rapport. We're seen as having put in place a pretty strong set of commitments so I think there's always a risk of it sort of being taken for granted. It's now expected of us but I know for sure if we hadn't done something like this and we were still in the same position we were ten years ago, I think we'd be having a lot of trouble.”

In addition to these explicit attempts to link TSM with financial performance, MAC also sought to create a link between the two by illustrating how an industry-controlled program like TSM would allow for members to reduce costs associated with TSM if the program was viewed as harmful to financial performance. MAC accomplished this by making salient the flexibility of the programme.

Even though MAC was reinforcing the business case for TSM by establishing a clear link between the program and financial performance, members were still contesting the reporting burden of the program and the costs associated with it. MAC executives were increasingly faced with balancing the requirements of TSM with internal pressures to ease the burden. As a former MAC chairman recalled:

I just sort of brought myself back to what the original thinking around TSM and recognizing that saying, well then you know, how do we design putting certain, a bit more flexibility without compromising the integrity in any way?

As a result, as part of MACs approach to reinforce the business case for TSM, they bridged the relationship between TSM and financial performance by emphasizing the *flexibility* of an industry-led program. Board meetings increasingly focused on how to “ease the reporting burden” of TSM and how to

improve efficiencies of the program without taking away from its robustness. During this stage, internal communications to members directly addressed these issues:

A small task force has been established to develop an implementation plan that will: (1) minimize cost; (2) minimize adverse impacts on our operations; 3) facilitate incorporation into existing audit and verification programs; (4) conform to other corporate reporting timelines; (5) ensure MAC members and COIs can rely on the reported results; and (6) contribute to TSM's goal of improving performance.

As observed in this statement, although improving performance was still an objective of TSM, its emphasis had shifted as increasing attention was given to how to make participation in TSM easier for member companies. Members were increasingly reassured that all measures had been taken to keep TSM from being a liability for companies as observed in this internal briefing note:

Background: The Towards Sustainable Mining verification system has been designed to achieve the following: To verify that MAC member company's evaluations against TSM indicators reflect actual company performance. To assist member companies in developing capacity to monitor and conduct self-assessment of TSM implementation. To provide a basis for company assurance. In approaching the design, TSM Initiative Leaders were motivated to ensure that the system also had a number of attributes, including: That it was cost-effective and minimized disruption to operations. That it could be implemented as seamlessly as possible, by facilitating its incorporation into existing company verification or audit programs and by aligning it with related reporting timelines. That it had integrity and that MAC members and their communities of interest could rely on the reported results.

Although it was very important for MAC to maintain the robustness of TSM, they ultimately had to ensure that the members continued to be on board with the initiative since this was who MAC was primarily accountable to. To this end, MAC focused on reinforcing the business case for TSM by building a link between the program and financial performance both from a profit-enhancing and cost-reducing

perspective. In the latter case, the link was supported by emphasizing the flexibility of the program in that members had control over its design and direction.

External Dynamics: 1993 - 2003

Contestation and Debate – Along with the internal debates during the initial development of TSM, during this period MAC was simultaneously engaging with external challenger audiences during this period. The center of the conflict was not whether the industry needed to improve its performance on sustainability dimensions—this was commonly acknowledged among the large majority of actors including most mining executives. Instead, the external contestation focused on *how* to go about improving the performance of the industry on these dimensions. MAC and its members were strongly in favour of an industry-led approach; however, challenger audiences such as governments and NGOs were sceptical about an industry-led approach. As one NGO executive recalled about TSM upon initially being introduced to the program:

“Okay. This is something that the industry still wants to control. So I am not going to get my hopes up. They're keeping it fairly safe for themselves. It's an incremental step, but one that could increase consistency and transparency on some key indicators, my sense is that they were willing to go down that route as long as they still held the decks, held the cards”

As this quote indicates, challenger audiences were apprehensive about allowing the industry to control the means by which social and environmental issues were addressed in the industry because they believed that the improvements be insufficient. Furthermore, challenger audiences felt that the voluntary nature of industry-led approach would create opportunities for mining firms to break the rules they set for themselves. As one government official put it:

So, you know, I can put my hand over my heart and pledge on a stack of Bibles that I will never travel over 100 kilometers an hour on the 401. So even if I'm doing 150, I already swore that I wouldn't do it. And that's, so that's good enough right? You know so that's what the argument is down to is do you want to have a voluntary environment or do you want to have a regulatory environment? And these guys are screaming bloody murder about any kind of regulatory environment. If they thought beyond their noses for more than two seconds, they'd realize that the only thing that ultimately works is a regulatory environment that it is imposed. And has some teeth for all of the industries. And that way they would weed out their own bad apples, but because it's an international effort they would weed out other countries' bad apples as well.

Thus, the initial contestation between MAC and external audiences in the years leading up to TSM was centered on whether addressing the issues around sustainability were best addressed through an industry-led approach or through changes to laws and regulations. External challengers were largely in favour of the latter. Although MAC viewed their relationship with government as a collaborative one, the membership was strongly against new regulations being imposed and was motivated to avoid these regulations. MAC also viewed NGO pressure as a serious threat. In an address to members during this period, the MAC president stated that “if regulators fail to act, NGOs will”. Thus, the contestation between MAC and external audiences during this period was whether to improve their social and environmental performance through increased regulations or through industry-led measures. Accordingly, MACs interactions with external audiences in the years leading up to the launch of TSM focused on building a case that an industry-led approach was the most effective means to address the issues facing the industry.

Conceptual Divide – The external contestation during the initial development of TSM revealed a disconnect between MAC and external audiences. Specifically, while MAC believed (both privately and publicly) that an industry controlled approach was the most effective means to improve the sustainability performance, external audiences did not share this belief. For this audience, there was no established link between improving performance and industry control. In fact, external audiences believed the opposite.

By allowing the industry to control their own program, effectively, “put the fox in charge of the henhouse” as one government official put it and creates an opportunity for the industry to abuse and take advantage of the program. Thus, MAC was faced with the challenge of bridging this conceptual divide and altering how external audiences viewed the relationship between an industry controlled program and sustainability performance. Even external actors who were sympathetic to MAC’s objectives did not see an industry-led program to achieve the sustainability-related objectives that were sought. As one member of an environmental NGO stated:

They could only do so much with TSM protocols without having to have regulatory change, because in the end, if you're going to make a level playing field, you need to be able to strengthen your effluent regulations. You're going to need to strengthen your carbon legislation.

Thus, for TSM to be viewed as legitimate by external audiences, they would need to shift how they made sense of the relationship between an industry controlled program and sustainability performance.

Bridging Work – Linking these two disconnected concepts required MAC to make a philosophical shift in the way the industry presented itself. Specifically, the mining industry had been described as ‘closed off’ to external audiences and unwilling to let external audiences in to their operations, interests, and struggles. With external communications in the years leading up to the launch of TSM, MAC took a different approach whereby they presented their strategies in, what for them, was a transparent and open manner. Consider this public speech given by a MAC executive shortly before TSM was unveiled:

Three years ago, the MAC Board underwent a strategic review, concluding that the industry's reputation was deteriorating and its social license – by this I mean the consent and support of those with an interest in what we do – was eroding. There was a belief that we had dropped the ball handed to us by the Whitehorse Mining Initiative by failing to follow-up on its recommendations in a concerted manner. Most important, the industry believed that the only way we could improve this situation was to improve our performance. Through MAC, the mining industry has been able to focus on collective challenges. We're able to share

experiences – good ones and bad – about starting, operating and closing a mine, or operating a smelter or refinery. By pooling our resources, conducting research with our stakeholders and partners, we have developed a strategy that, over time, will improve the performance of the entire industry.

The above statement highlights how MAC sought to construct a link between internal control and improved sustainability performance. By showing how TSM involved “pooling resources” and “conducting research with our stakeholders”, MAC communicated to external audiences that a program like TSM would get industry buy-in around improved sustainability performance that regulations would not. Additionally, it was suggested, TSM not be a replacement for existing regulations. Instead, MAC executives argued that TSM was intended to go “beyond regulation” as a way to improve performance in areas that were “very hard to regulate”. In addition, MAC argued that TSM could improve performance in ways that regulations could not:

When you regulate something you seldom achieve much above that which is why the TSM is so good at inspiring better performance because it's able to incent better performance (MAC executive).

Thus, through external communications MAC was able to establish a link between an industry-controlled program like TSM and sustainability performance. Challengers in the field often accused the industry of simply using TSM to protect their interests. Rather than denying this, MAC chose to agree with it; however, they made salient the win/win opportunities in TSM.

In constructing the link between TSM and sustainability performance, MAC had to explain to external audiences why MAC members would subject themselves to the rigorous standards of TSM including external verification and a grading system. To do this, MAC emphasized the win/win capabilities of the TSM program in external communications. For example, MAC often argued that what

is good for stakeholders or “communities of interest” is good for the industry and that an essential business activity for the industry was earning a “social license to operate”:

"Towards Sustainable Mining marks a major shift in the way the mining industry operates and does business in Canada," said Jim Carter, Chair of MAC and President and Chief Operating Officer of Syncrude. "In order to grow and prosper, the mining industry needs to retain and sustain the public's trust. That is why we have launched TSM, which is designed to ensure the actions and activities of our industry are aligned with the values of local communities, employees, stakeholders and the public at large." (Media data)

There was little attempt to make TSM sound like an altruistic endeavour. Instead, MAC readily acknowledged the business case for TSM and argued that “sustaining the public’s trust” was necessary “in order to grow and prosper”. MAC also stressed that a benefit for both incumbents and challengers was the increased collaboration that TSM would bring with it. As stated by a MAC executive in a public speech leading up to the launch of TSM:

TSM is the most recent, and likely the most ambitious, collaborative effort we've undertaken as an industry. It may be described as an umbrella – an overarching ethic that governs all of our relationships, including with our employees, our communities, Aboriginal peoples, environmental groups, our shareholders and others. It is an ethic that seeks to create a more open, inclusive and transparent culture in our industry.

Words such as “inclusive” and “collaborative” suggest benefits for both challengers and incumbents. Indeed, collaboration and dialogue became a hallmark of TSM and MAC more generally as they would often publically argue in favour of a “multi-stakeholder approach” to policy issues. In short, by emphasizing the win/win capabilities of TSM, MAC was able to make a case to external audiences that an internally- controlled program like TSM was in everyone’s best interest. The salience of win/win capabilities was critical in providing a motive as to why the link between an industry- controlled program and improved sustainability performance was possible and preferable.

To summarize, the focus of the contestation from external audiences in the years leading up to the launch of TSM was whether the response to the issues facing the industry should be industry controlled or government controlled. This contestation revealed a conceptual divide in these external audiences between an industry-controlled standard and sustainability performance. To bridge this conceptual divide, MAC made salient the win/win capabilities of TSM as a means to link the program to improving sustainability performance.

External Dynamics: 2004 - 2013

The Construction of the Sustainability Performance Frame and the Launch of TSM – MAC’s work to create a clear link between an industry-controlled program and improving sustainability performance helped to establish a stronger case for TSM to external audiences. By emphasizing the win/win possibilities of TSM, MAC sought to reduce scepticism that the industry would have any incentive to improve sustainability performance with an internally-controlled program. They also articulated a case for why an industry-controlled approach may actually be more effective than an externally controlled approach by using their expertise to design the program effectively and by facilitating a collaborative rather than antagonistic relationship between the industry and external audiences. This bridging work was an integral part of the sustainability performance framing of TSM to external audiences. The importance of MAC’s bridging work in supporting the sustainability performance frame can be observed in MAC’s press release at the launch of TSM:

As members of The Mining Association of Canada, our role is to responsibly meet society's needs for minerals, metals and energy products. To achieve this, we engage in the exploration, discovery, development, production, distribution and recycling of these products. We believe that our opportunities to contribute to and thrive in the economies in which we operate must be earned through a demonstrated commitment to sustainable development. Accordingly, our actions must demonstrate a responsible approach to social, economic and environmental performance that is aligned with the evolving priorities of our communities of

interest. Our actions must reflect a broad spectrum of values that we share with our employees and communities of interest, including honesty, transparency and integrity. And they must underscore our ongoing efforts to protect our employees, communities, customers and the natural environment.

The central idea in this statement is that the requirement of a strong performance on sustainability dimensions is as important for the industry as it is to the general public – that their “opportunities to thrive” is dependent on a strong sustainability performance. Because of its critical importance of this to the industry, the idea that they can be trusted to effectively improve their performance with an internally-controlled program may be more justifiable to external audiences.

Although a number of key NGOs were still very skeptical of the program and its prospects for improving the industry on these dimensions, the programme was increasingly given praise by government actors and some members of the NGO community. At the time of its launch, TSM was publically praised by the federal government. In addition, an executive from a large environmental NGO said that TSM is “a good step in the right direction for this industry.” Thus, in short, TSM was viewed as legitimate by a large enough number of external actors that the industry was given a chance to improve its sustainability performance without much additional government intervention.

Contestation and Debate – In the years following its launch MAC faced the challenge of showing that TSM was achieving its performance objectives to external challengers. In immediate years following TSM’s launch these actors began to critique TSM on a number of different dimensions First, a criticism was levelled against TSM in terms of the actual content of the standard itself. As one member of a prominent NGO in the field stated with regards to TSM’s protocols around tailings (i.e. waste) management:

“Then MAC sets out the tailings impoundment things, but if you look at the actual documents that they created, they're now being critiqued as being extremely weak. People have now taken a look at what they say

about tailings impoundments go, "This is terrible. This is crap." This is engineers looking at this now and saying, "If this was supposed to be setting the standard and protect us... then this is not very good."

This quote highlights a general criticism with the internal content of TSM and its relation to sustainability performance. Another related criticism of TSM was that it was viewed as too narrow to achieve its intended outcomes related to sustainability. Challenger audiences were particularly critical of TSM's lack of focus on issues outside of Canada. Of particular note was that although was mandatory for members for all their Canadian operations, it was not mandatory for member operations outside of Canada. Since many members had numerous operations outside of Canada, this was viewed by external audiences as a glaring hole in the program and raised a number of questions about its possible outcomes:

"If you are telling us that your industry subscribes to these principles, believes in this programs you sign up to it, why aren't you applying it everywhere where you operate?" (Investor and member of MAC's COI panel)

"We've been quite critical of MAC in terms of their narrow view of performance and lack of integration around international issues, with domestic issues. Couple of years ago we issued a press release that following up from MAC TSM awards and we don't notice this very serious environmental and human rights problems of some of the leading companies, of award winning companies operations inside of Canada."
(NGO executive)

As indicated in these quotes, the criticism of TSM from challengers in the years following its launch was both aimed at both the content of TSM as well as its scope. These criticisms were heightened by the fact that, internally, not all MAC member firms participating in the program were showing performance improvements on sustainability dimensions. The MAC public affairs committee acknowledged this dilemma in a 2010 briefing by stating that "A challenge in promoting TSM was that it is hard to promote

it when some results are not improving.” Because MAC’s external communications focused on getting external audiences to think of TSM as a means of improving sustainability performance, they could no longer simply reinforce the case for TSM to improve sustainability performance; they now had to show some form of positive results to external audiences. Canadian Mining companies were also being targeted by NGOs for their operations in developing countries and a number of allegations of human rights abuses began to emerge. External audiences began to increasingly question whether TSM was the most appropriate means to address social and environmental performance on an increasingly transnational playing field. One member of the Canadian Parliament tabled a private members bill in 2009 aimed at addressing these issues. The bill—C-300—would require the Minister of Foreign Affairs and the Minister of International Trade to investigate and report on any single complaint against the activities of a Canadian mining company in a developing country. If the company was found to violate CSR guidelines the act required Export Development Canada, The Canada Pension Plan, and the Department of Foreign Affairs and International Trade to withdraw funding from companies acting inconsistently with the guidelines. MAC and its members strongly opposed the bill and engaged in an aggressive public relations campaign and private lobbying campaign to have the bill defeated. In its second reading in Parliament, the bill was defeated by a margin of 140-134. MAC was largely credited in the media as being responsible for its defeat due to their lobbying efforts.

Even though MAC was successful at lobbying against Bill C-300, significant reputational damage was done to MAC and the industry. MAC considered itself to be a willing partner of government and having an image as a combative lobbyist was viewed very negatively in the association. Moreover, the media was increasingly critical of MAC and the industry over not being willing to sign on to the bill. In the Globe and Mail national newspaper, an editorial asked why mining companies were so opposed to the legislation if they were such good corporate citizens as they purported to be? As these statements demonstrate, it was the outcomes of TSM that came under scrutiny during these years.

MAC's external framing of TSM during this period chose to downplay the outcomes of TSM and instead focus primarily on its *process*. Although TSM was initially envisioned as a "journey", up until its launch however, MAC primarily focused on outcomes. The shift from focusing on process was acknowledged at a meeting of MAC's public affairs committee:

TSM is mandatory, transparent and a work in progress. After only three years of reporting there have been significant improvements. Members agreed that they should be careful not to whitewash any facts, but that the communications should indeed focus on the bigger picture; it should show TSM as a work-in-progress (MAC Public Affairs Committee briefing note)

MAC thus began focusing on how showing a strong process would ultimately lead to improved performance. In 2005, a MAC executive accepted an award for TSM by saying "It is still early days with TSM and we have a long way to go. However, we think we're on the right path". The process/performance link in external TSM communications became the hallmark of TSM. In a speech given in Alberta in 2008, a MAC executive offered the following advice for the responsible development of the province's Oil Sands:

"One of the key learnings of our industry has been: getting the process right. It is often more important than getting "correct" outcomes and certainly outcomes have greater buy-in when the process is done well and is inclusive of various interests."

The notion of process was also included into the very structure of TSM during this period as MAC altered the conditions of membership to emphasize process. The original condition of membership statement said:

MAC members endorse the TSM Guiding Principles and commit to reporting on TSM performance elements within three years. MAC members commit to ensuring assistance is provided to members in achieving these conditions.

However, the TSM committee believed this statement did not necessarily signal performance improvements as being the objective of TSM. As a result, the committee recommended revising the condition of membership statement to suggest that progress had been made. The committee reviewed the previous years of TSM performance and found that although not all members had achieved an ‘A’ score on each dimension, progress had been made overall. Thus, the committee recommended that the condition of membership statement also include the statement “MAC members are expected to demonstrate continuous improvement over time”. Taken together, MAC focused its external communications on emphasizing the idea that TSM is a work-in-progress and not necessarily working toward a finite set of outcomes.

Thus, at the heart of the external contestation in the years following TSM’s launch was whether TSM should be focused on process or outcomes. External audiences, dismayed by a lack of measureable improvements in sustainability outcomes from the industry were calling into question the legitimacy of the program and again calling for new external controls on the industry. MAC instead focused on TSM’s process as a way to communicate to external audiences that although the sustainability-related outcomes of TSM may not be observable yet, the process can be trusted and thus should be continued.

Conceptual Divide – This contestation revealed a broader divide in how external audiences made sense of TSM. Specifically, external audiences did not see a clear link between the process of TSM and its outcomes. To these audiences, the process was not particularly meaningful if it did not translate into sustainability-related outcomes. As one NGO executive recalls telling MAC executives and members:

This is what I say to these guys is, "you need to ask yourself what does this mean on the outside? And to what extent is the industry actually discussing TSM with the communities that it deals with?" In my experience, there's complete silence, basically. It's one of the last things that a company will bring up in the regions that I work.

This quote captures the conceptual divide held by members in the years following TSM’s launch, Although TSM had specific guidance for how to address sustainability related issues, this was not translated into tangible outcomes at the community-level in which the mines operate. A member of the COI panel further demonstrates this disconnect between TSM’s process and outcomes:

“You will not be able to go to TSM scores and understand how the individual company or the individual mine actually interpreted its obligation to work with other constituencies. There's no record at the moment, accessible documentary record of what's been achieved.”

As these examples illustrate, much of the contestation around TSM in the years following its launch with external audiences was rooted in these audiences not having a clear link between TSM’s process and its sustainability performance outcomes.

Bridging Work – MAC responded to this, by working to communicating to external audiences why the process of TSM was connected to sustainability performance outcomes. They did this by emphasizing the credibility of TSM’s process in their communications with external audiences. In a public address in 2010, a MAC executive stated:

“In 2009 a study by Canadian Business for Social Responsibility found that MAC's Towards Sustainable Mining initiative has earned a high degree of credibility and promotes continuous improvement. The study's review of corporate social responsibility frameworks for the extractive industry reaffirms that TSM is effective and credible, and that it enables our members to demonstrate their commitment to improved performance in sustainable development”.

As this quote shows, the notion of a “high degree of credibility” was closely paired with “continuous improvement”. By framing the TSM process as highly credible with key stakeholder groups, MAC could make a more persuasive case to challenger audiences that TSM would eventually hit the performance objectives it initially communicated to these audiences. MAC also began to place more emphasis on the

community of interest panel given that it was a means to demonstrate how TSM involved feedback from non-industry stakeholders. Public communications regarding TSM during this period often clearly stated:

“TSM includes ongoing consultation with a national Community of Interest (COI) Advisory Panel. This multi-stakeholder group helps our members and communities of interest foster dialogue, improve the industry's performance and shape the program for continual advancement”

Using the credibility of TSM's process to bridge the divide between process and sustainability performance also became a major aspect of MAC's public affairs during this period. For instance, starting in 2005, external communications started referring to TSM as the “award winning TSM”. Few press releases or public documents did not mention the external credibility of TSM. For example:

MAC's mission is to contribute to building a strong, sustainable and internationally competitive Canadian mining, minerals and metals industry with broad national support and to promote sound corporate and public policy. An important means to do so is through Towards Sustainable Mining (TSM), a program that has been evaluated by Five Winds International and the Canadian Business for Social Responsibility as “best-in-class” when compared to other voluntary standards.

MAC also created the TSM Excellence Awards for member firms who demonstrated high performance with regards to “community engagement and environmental excellence”. The awards were part of a broader objective to increase communications around TSM as observed in this internal briefing:

MAC was instructed to prepare a set of recommendations for enhancing TSM communications. These tasks will be addressed by a joint working group consisting of members of the Initiative Leaders and the Public Affairs Committee. Specifically, MAC will focus on the following: Elevator Pitch: MAC will develop a clear, concise elevator pitch for TSM and what it has accomplished. Awards: MAC will develop a proposal for a new awards program and ceremony that stakeholders outside the industry can better relate to and

understand. Initial discussions have focused on a program based on leadership style awards that require a minimum performance level in a linked TSM protocol in order to be eligible.

The TSM Excellence Awards provided a forum to increase the credibility and publicity of the program. Even though the winner of the awards were ultimately decided by a committee chosen by MAC, the fact that they were presented at the Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Awards Gala event gave them the appearance of being an external form of recognition.

Internal discussions at MAC about TSM during this time also focused on ensuring the process was perceived as credible by external audiences. The following minutes from a TSM committee meeting on external communication ideas illustrates the importance of the credibility of TSM's process:

- All MAC member companies achieve a level 3 for each indicator and 30%(?) of MAC members achieve a level 5 for 1/3(?) of the indicators.
- All MAC members have demonstrably improved performance (how would we measure this?).
- The reputation of the mining industry has improved (we would need some indicators to measure this).
- ICMM has adopted significant aspects of the TSM program OR TSM becomes world wide standard for CSR within the mining industry.
- TSM maintains its position as the most credible industry association CSR program in Canada. Others?

As this excerpt illustrates, MAC's aim was to communicate that the process of TSM was credible enough to warrant the continued buy-in from these external audiences.

The issue of externally communicating the credibility of TSM competed with internal discussions around reducing the burden that it placed on members. While MAC was emphasizing the credibility of TSM externally, internally they were emphasizing the flexibility of TSM to their members. After the conflict between MAC and one of its largest members over reporting on TSM was resolved and some concessions were made to the company to ease the reporting burden, MAC sought to seek to protect the

credibility of the program by introducing a new process for member companies that did not comply with TSM's requirement:

Non-conformance - The sub-group agreed that the above-mentioned condition of membership remains a critical component of TSM, and that a formal process to address non-conformance is warranted. The meeting participants also felt it was important to build a system that first took every step possible to work with a company that was not in conformance to find solutions that would bring the member in question into conformance. However, it was also felt that ultimately there should be a step that could lead to a member being asked to leave the association if all other efforts failed. This measure will help protect the integrity of TSM and provide additional credibility and rigour to the initiative.

Although the process was not strongly punitive, it did show that MAC was placing considerable importance on the process of TSM being perceived as credible by external audiences.

To summarize, in the years following TSM's launch, external contestation was focused around whether TSM was achieving its intended outcomes. This contestation revealed a new conceptual divide in these audiences between TSM's process and its outcomes. In response to this, MAC sought to create a link in the process and outcomes of TSM by making salient the credibility of the process of the programme.

DISCUSSION

Our existing understanding of the dynamics of organizational fields defined by contested issues primarily centres on the interaction between challengers that seek to disrupt institutional status quo and incumbents that seek to defend and protect it (Gurses & Ozcan, 2015; Hoffman, 1999; Kellogg, 2009; Maguire & Hardy, 2009; Zietsma & Lawrence, 2010). Largely missing from our understanding of these fields is the role of the organizations that act as an intermediary between these two groups. Accordingly, my objective in this study was to examine how these intermediaries—in my case, trade associations—

shape the institutional evolution of contested-issue fields. The findings demonstrate how contestation between TAs and internal and external audiences reveal conceptual divides in these audiences that act as impediments to the successful establishment of strategic frames. To overcome these impediments, TAs engage in bridging work whereby they use specific bridges to create links between the disassociated concepts. By bridging conceptual divides, the strategic frames are more likely to resonate with audiences and are more likely to successfully facilitate field-level changes. Following the introduction of the change to the field, however, contradictions may emerge between the change and the supporting it. In these cases, further contestation may occur and further conceptual divides may be revealed. This triggers additional bridging work on the part of TAs in order to reinforce the overarching strategic frame supporting the change.

The intermediary position of trade associations in fields—and the unique access it grants them to both incumbents and challengers—makes them more capable of engaging in strategic framing of field-level change than other actors in the field. This notion has been hinted at previously in the literature. For instance, Greenwood et al.'s (2002) finding of the key role of associations in the theorization stage of institutional change shares some similarities with strategic framing in that both are aimed at shaping how actors interpret a particular course of action by outlining the problem and providing a justification for the solution. Recently, Gurses and Ozcan (2015) explicitly examined how TAs representing different groups enter into framing contests with external stakeholders and regulators. While these studies highlight the importance of framing for associations, they have focused on either internally-directed strategies (Greenwood et al., 2002) or externally-directed strategies (Gurses & Ozcan, 2015). However, for field-level change to occur via strategic framing in contested issue fields, both internal and external audiences need to be targeted. In other words, studies that focus solely on internal or external audiences cannot capture the dynamics of change in contested issue fields and does not capture the full richness of the intermediary role of TAs in these fields.

As indicated above, the unique position of TAs in contested issue fields and the unique access they have to both incumbents and challengers makes them particularly capable to engaging in strategic framing of field-level change. Although the activities of TAs in fields—defining, defending, legitimating, manipulating—are relevant, I argue that their role in strategic framing should be given adequate attention in research at the intersection of framing and institutional processes. I now discuss the contributions of my study to research on the strategic framing of change in detail.

TAs and the strategic framing of change

Strategic framing of field-level change – My study contributes to research on the strategic framing by building theory on the strategic framing of change at the field-level. Existing work on strategic framing has largely focused on audiences inside individual organizations, whereas studies of framing at the field-level have been focused on the co-construction of field frames (Lounsbury et al., 2003) or institutional frames (Cornelissen & Werner, 2014) by actors in the field. A key difference between these two areas of research, besides the unit of analysis, is that research on framing at the field-level has been largely focused on the interactive construction of frames either through framing contests (Gurses & Ozcan, 2015) or through a more shared and cultural-cognitive form of frame construction (Scott, 2008), whereas research on strategic framing has primarily emphasized strategic, agentic, and persuasive forms of framing in which managers or leaders shape the ways in which audiences make sense of a proposed change (Rouleau, 2005). My findings, however, suggest a middle-ground between these two approaches. Similar to strategic framing, my study highlights how intermediaries like TAs strategically shape the sensemaking of internal and external audiences—through bridging work that creates conceptual linkages that support a frame—in order to facilitate changes at the field-level. Yet unlike most research on strategic framing and more similar to existing research on field and institutional frames, my study shows how the construction of strategic frames and the meaning underpinning them is shaped by interaction, contestation, and debate between TAs and internal and external audiences. In this way, strategic frames are not the sole product of

the framers as has been emphasized in the majority of existing research and, instead, also bear the strong imprint of the audience(s) to whom the framing is directed. In this conceptualization of strategic framing, the key role of the framer is not the strictly on the articulation of a particular vision of change (Werner & Cornelissen, 2014), but instead on the bridging work that is required to build the conceptual linkages in order to get a frame to resonate with a particular audience.

My findings and recursive model also shed light on how strategic framing at the field-level can facilitate the institutionalization of field-level change. Specifically, I show the process by which internal and external contestation reveals conceptual divides which triggers bridging work on the part of intermediary organizations in order to construct or reinforce strategic frames that facilitate change in the field. This process is recursive and repeats itself throughout different stages of the change process. Once a field-level change occurs, contradictions may be revealed if the changes do not align with the meaning underpinning the existing frame. These contradictions thus trigger more internal and external contestation and debate which reveals new conceptual divides and triggers more bridging work on the part of intermediaries. Although the basic process remains the same, my findings elucidate a number of important differences at different stages of the change. These are shown in table #10.

Table 10: The evolution of strategic framing at the field-level

Dimension	Pre-Change	Post-Change
Nature of contestation	Broad	Narrow
Scope of bridging work	Norm and Assumption focused	Practice-focused
Frame contradictions	Large	Small
Degree of institutionalization	Low	High

My findings show how periods of heightened contestation occur at different stages throughout the change process. It is well established in the literature that contestation occurs during periods of disruption when existing institutions are under threat and incumbents and challengers are debating the future rules, norms, and practices in an organizational field (Wooten & Hoffman, 2008). However, my findings show

that contestation may also occur once a field-level change has been introduced. This period of contestation following a change is triggered if there are contradictions between the strategic frame used to support the change and the actual field-level outcomes that the change engenders. In my case, following the launch of TSM, both internal and external audiences noticed contradictions between what they observed with TSM in the field and the strategic frame that MAC had established to support the programme. For internal audiences, the absence of observable financial benefits flowing from TSM's implementation ran counter to the business case frame which had been established. For external audiences, the lack of observable performance improvements on social and environmental dimensions ran counter to the sustainability performance frame that had provided TSM with its initial legitimacy. For both audiences, the contradictions between the strategic frame and how they observed the impact of TSM in the field led to further periods of contestation where TSM is discussed and debated. However, this second period of contestation differs from the first period in terms of its scope. While the initial contestation in the years before TSM was launched was focused around broad assumptions about the effectiveness of an industry to effectively improve its sustainability performance and the philosophical ideas about the nature of what drives business performance, the contestation in the following years were much narrower. Instead of contesting broad assumptions and understandings, the contestation following a change focuses on issues narrower in scope such as *how* TSM improves financial performance and sustainability performance. In other words, the initial contestation focuses on TSM as a concept while the contestation after TSM's launch is more narrowly focused on the mechanics of TSM.

The change in contestation is also reflected in differences in the conceptual divides possessed by internal and external audiences and the nature of the subsequent bridging work undertaken by the intermediary to bridge the conceptual divide. Because the conceptual divides were quite large in terms of the concepts that needed to be linked in order for the strategic frame to be established, MAC's bridging work qualitatively differed in the periods before and after TSM's launch. For instance, in the first stage, MAC's bridging work toward internal audiences involved linking large assumptions and ideas about the

nature of what drives financial performance. In contrast, in the second stage, internally focused bridging work was aimed more narrowly at practices within TSM. A similar dynamic exists with MAC's externally-focused bridging work in that it focuses initially on broad assumptions and understandings and then shifts to more narrow practice-based linkages.

These findings lead to two theoretical insights. First, although many existing studies of institutional evolution and change highlight the importance of contestation in the change process, the focus has been on the initial contestation before a change occurs (Greenwood et al., 2002). My findings, while acknowledging the importance of contestation in the initial stages of change, also acknowledge the importance of contestation following the change in response to contradictions that emerge between the subjective experiences of actors in the field and the frame underpinning the change. In this way my findings are more similar to studies that treat evolution and change in fields as an ongoing contested process (Seo & Creed, 2002; Farjoun, 2002). Second, my findings also highlight the evolving nature of contestation throughout the change process in terms of its scope. Specifically, I show how contestation becomes narrower throughout the change process. Using Harmon et al.'s (2015) language, initial contestation tends to consist of inter-field rhetoric—that is, broad and focused on the context of a particular field—while contestation following a change tends to consist primarily of intra-field rhetoric—that is, focused on particular practices within a particular context. The importance of this insight is that as rhetoric moves from inter to intra-field, the field moves toward more common meanings and thus facilitates the institutionalization of the change. In my case, as contestation around TSM became more focused on the internal workings of TSM and how particular outcomes might be achieved within the framework of the programme, it became more strongly institutionalized in the field.

In summary, my model shows that strategic framing is both involved in the initial facilitation of changes in a field and in its institutionalization. This is not to suggest that strategic framing is always successful. In certain cases, the contradictions between a change and the frame supporting it may be too large to reconcile through additional bridging work. In MAC's case, the contradictions between TSM and

the frames underpinning them were small enough that MAC could effectively bridge the conceptual divides and reinforce the strategic frames by slightly altering the meaning underpinning them. Thus, the success of bridging work in strategic framing before a field-level change is introduced hinges on the severity of the conceptual divide. Once a field-level change has been introduced, the success of bridging work hinges on the severity of the contradictions between the frame and the audiences perceptions of the changes.

Bridging work – Existing research on strategic framing tends to focus on the particular ways in which frames are blended, extended, linked, amplified, or transformed in order to shape the sensemaking of targeted audiences (Cornelissen & Werner, 2014). The focus in these studies has been primarily on the initial stages of a change where it is being envisioned (Benford & Snow, 2000). Less work has focused on the ways in which support for frames are mobilized (Werner & Cornelissen, 2014). However, this aspect of strategic framing is critical because it is not enough simply to articulate and elaborate a frame (Snow, 2012), but also to persuade audiences that the frame is legitimate and meaningful (Rouleau, 2005). In this study, I have introduced the concept of bridging work as one way to understand how support is mobilized for a particular strategic frame. Specifically, I have shown how the biggest impediments to getting a strategic frame to resonate with audiences stems from conceptual divides in these audiences that do not make frames resonant or meaningful. For example, in the years leading up to TSM both the business case and sustainability performance frames for TSM did not resonate with internal and external audiences because they did not have a clear link between TSM and financial performance and sustainability performance, respectively. To address these conceptual gaps, MAC emphasized specific bridging concepts in their communications with these audiences in order to help build connections between these concepts in order to make the frames resonate. As this shows, although the articulation and elaboration of a frame is an important part of the process, it is not sufficient in creating a strategic frame to resonate. Instead, more

active work needs to be done in shaping how audiences make sense of issues, ideas, and the relationships between concepts. Bridging work, I suggest is an important means through which this occurs.

My study thus helps enhance research on the strategic framing of change by showing the micro-processes by which support for frames are mobilized. While we know that certain strategic frames are likely to resonate more with certain audiences (e.g. Fiss & Zajac, 2006) and that strategic framing becomes more prominent at specific stages of the change process (Gioia & Chittipeddi, 1991), we have yet to develop a strong understanding of how strategic frames come to resonate with audiences—especially when these audiences are likely to be initially opposed to a particular change. My focus on bridging work helps to shed light on this issue and highlights the importance of establishing conceptual linkages in key audiences in order to successfully facilitate a change at the organizational or field-level.

My study also highlights the importance of the intermediary organizations like trade associations in bridging work aimed at both incumbents and challengers in the field. In particular, the unique position of associations as intermediaries in contested-issue fields means they are reliant on both internal audiences (i.e. members) as well as external audiences (government, NGOs) for their survival (Schmitter & Streeck, 1981). However, this intermediary position also grants them the access to these audiences to shape how they make sense out of issues and strategic change. In the case of MAC, they were able to simultaneously frame TSM as a business decision to internal audiences while framing TSM as a means of improving social and environmental performance to external audiences. Although framing the same program in different ways to different audiences could be viewed as disingenuous, MAC sought to overcome this by emphasizing that the business case and the sustainability case for TSM were intrinsically linked and critically interdependent. MAC communicated that the industry could only improve its reputation (and thus its financial performance) by improving its sustainability performance. As a result, MAC could simultaneously frame TSM around the business case and sustainability performance to different audiences without being seen as disingenuous because the bridging work they conducted with these audiences helped facilitate the necessary conceptual linkages for this to occur. By emphasizing the ability of

intermediary organizations to frame to multiple audiences simultaneously, this study connects research on strategic framing to an emerging body of literature that focuses on how actors use uniquely- tailored rhetorical strategies to different audiences in pursuit of their interests (Jones & Livne-Tarandach, 2008; Jones, Livne-Tarandach, & Balachandra, 2010). In their work, Jones and colleagues illustrate how architecture firms use rhetoric to deploy specific institutional logics to different audiences as a means of being viewed as legitimate. In a similar vein, my study illustrates how intermediary organizations can frame a similar initiative in different ways for different audiences. However, while Jones et al. show how architects use keywords that bridge institutional logics, my study shows a more active role whereby intermediary organizations actively create the linkages for audiences in order to make the frame resonate. Taken together, my findings nicely compliments Jones et al.'s work by showing how rhetorically tailoring a frame for different audiences both requires drawing upon the most resonant systems of meaning (or logics) for these audiences as well as more active work aimed at creating and concretizing these systems of meaning.

The dynamism of strategic framing – A striking aspect of my longitudinal study of the strategic framing of change is the interactive nature of how strategic frames are constructed and the dynamism of the meaning that underpins them. In my case, the evolution of TSM illustrates how the meaning underpinning strategic frames evolves and changes over time and between different audiences. Specifically, the meaning associated with the business case frame shifted meaning over time as new forms of contestation and debate occurred and new conceptual divides emerged. During the initial construction of the frame before TSM was launched, the business case for TSM was largely based on TSM's ability to increase financial performance by increasing reputation. In contrast, in the years following TSM's launch, the business case shifted to be more focused on the cost reducing benefits of an internally controlled program as compared to an externally controlled system of laws and regulations. This shift illustrates that although the business case frame supporting TSM remains the same, the meaning underpinning it shifts and evolves in response

to dialogue, discussion, and debate. The externally-focused sustainability frame experiences similar shift and the nature of the contestation changes. In the years leading up to TSM's launch, the conceptual divide between an industry-led program and sustainability performance that was revealed through the MAC/external audiences interactions led MAC to emphasize the reasons why TSM would improve sustainability performance. In the years following TSM's launch, MAC shifted the meaning away from performance and towards process as a means to reinforce the sustainability performance frame around TSM. Although the same strategic frame was used to support TSM, its underlying meaning was shifted in response to external feedback and contestation.

This finding illustrates how the salient meanings underpinning a strategic frame can evolve and change over time in response to external feedback. This suggests that although strategic framing is largely initiated by leaders and other powerful actors in the field, the particular meanings that underpin strategic framing are shaped by the audiences with whom the framers interact. This helps address a criticism of strategic framing that suggests that existing work in the area overemphasizes the role of the framers while downplaying the role of the audiences in the construction of frames (Cornelissen & Werner, 2014). Though my study does not make a case that strategic frames are jointly constructed the way collective action and field-level frames tend to be (Benford & Snow, 2000; Lounsbury et al., 2003), it does offer a less one dimensional and "more balanced" approach to understanding the strategic framing of change. In this way, my study suggests that future research on the strategic framing of change place more attention on how the skillful construction of strategic frames by powerful actors in the field is influenced by contestation, discussion, and debate with actors in the field. By showing how the conceptual linkages underpinning strategic frames are shaped by feedback, debate, and contestation.

TRADE ASSOCIATIONS IN FIELD-LEVEL CHANGE: A CONCEPTUAL FRAMEWORK

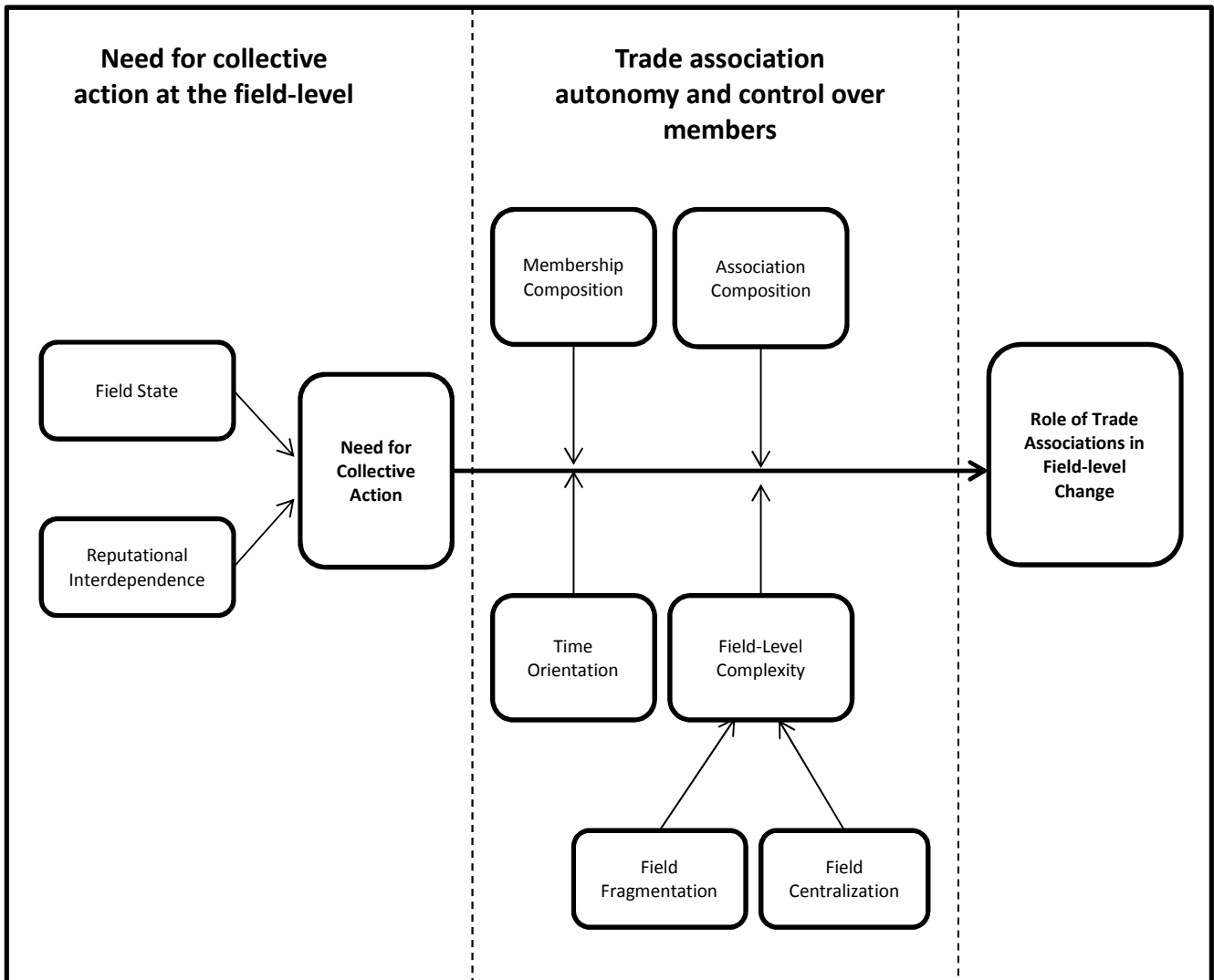
I set out to answer two research questions in this dissertation: (1) How do intermediary organizations such as trade associations facilitate field-level change? (2) What factors contribute to a TA's

ability to play an active role in field-level change? In the preceding section I have sought to answer the first question by showing how MAC engaged in strategic framing via bridging work to facilitate field-level change. Although that section sheds light on how trade associations can facilitate field-level change, it does not directly address questions related to why they are able to do this and the conditions under which it is likely to occur. As existing research on trade associations as shown, there has both been evidence provided that trade associations are conservative forces in fields that seek to protect the status quo (Maguire & Hardy, 2009; Vermeulen et al., 2007) as well as evidence that trade associations will play an active role in field-level change (Greenwood et al., 2002; van Wijk et al., 2013). Furthermore, there has also been little attention given to trade associations as their own entities – with most research in the area tending to view trade associations as inseparable from the members they represent (Greenwood et al., 2002; Gurses & Ozcan, 2015). However, as the preceding section has shown, although trade associations may represent incumbents in the industry, they are not necessarily always aligned with their members and contestation may occur between TAs and members in certain instances.

In this section I seek to address the second research question of this dissertation. Specifically, I aim to develop a framework to enhance the understanding of when TAs are likely to play an active role in field-level change. I do not intend to argue that TAs are solely focused on change in organizational fields. On the contrary, I believe that TAs are often conservative that will defend incumbents from change in a field; however, under certain conditions they may break from that conservative role and play a more active role in field-level change. In the following, I develop a conceptual framework to understand the factors that shape the role of TAs in field-level change (see figure 5). In developing my arguments, I suggest that there are two overarching considerations that influence the role of TAs in fields. First, the role of TAs in fields depends on the extent to which collective action is needed by incumbents. Second, it depends on the degree to which TAs possess autonomy from—and relative control over—its members. I

highlight factors from the field, industry⁹, and association-level that contribute to these conditions. In doing so, I draw from existing research on organizational fields, trade associations, as well as my own data on MAC's role in field-level change in Canadian mining.

Figure 5: A conceptual framework for the role of trade associations in field-level change



⁹ The industry factors differ from field-level factors in that the field extends beyond the industry to include actors outside of the industry, but yet coalesced around the issue of sustainability in Canadian Mining. These include NGOs, regulators, consultants, academics, and funding organizations. Thus, the field is not bounded by industry but rather the actors that coalesce around a specific issue (Wooten & Hoffman, 2008).

Need for Collective Action at the Field-Level

Since trade associations are primarily vehicles for collective action, the extent to which they will play an active role in organizational fields is largely dependent on the extent to which individual firms see a need for collective action. The factors that shape the decision to respond individually or collectively have been discussed by a number of scholars (see Barley, 2010; Barnett, 2006; Hansen, Mitchell, & Drope, 2005; Mizruchi, 1992; Olson, 2009). I build on these studies in this section, but my focus is specifically on the factors that shape the need for collective action aimed at institutions at the field-level (Barnett, 2006). I discuss two factors that impact the need for collective action at the field-level: field state and reputational interdependence.

Field State - A number of studies have highlighted the role that the particular state of the field plays in enabling action (Greenwood & Suddaby, 2006; Maguire, Hardy, & Lawrence, 2004). Though few have developed a formal theory in this area, a general distinction can be made between emerging, mature, and disrupted fields (Wooten & Hoffman, 2008). Mature fields are characterized by well-established rules, norms, and patterns of interaction (Greenwood & Suddaby, 2006). In these fields, firms' institutional demands are well understood and often attended to in some form (Greenwood et al., 2011). In addition, these fields have a high degree of institutionalization which makes existing practices well entrenched and less likely to shift (Hardy & Maguire, 2008). In contrast, emerging fields are characterized by relative uncertainty regarding what behaviours are appropriate and what activities are legitimate (Maguire et al., 2004). These fields are also characterized by weak formal institutions such as laws and regulations as well as weak informal institutions such as norms and common meanings. Disrupted fields are those that have been unsettled after regulatory shifts, social and/or environmental incidents, key media events, or the introduction of new technologies (Hardy & Maguire, 2008). These disruptions are seen as the catalyst that triggers the "reconfiguration of an organizational field and the institutions that guide behaviour (Hoffman, 1999: 353). Disrupted fields often expose contradictions that exist within the field making firms more likely to engage in actions that seek to restore and defend legitimacy (Maguire & Hardy, 2009). Fields

formed around contested issues or issue-based fields are more likely to have numerous periods of disruption since contestation between incumbents and challengers occurs in an ongoing fashion. However, issue-based fields are not synonymous with disrupted fields because even fields formed around contested issues can engage in periods of relative stability where temporary truces occur (Hargrave & Van de Ven, 2006). Hoffman (1999) illustrates this dynamic by showing both periods of stability and disruption in the field surrounding corporate environmentalism.

The state of the field has implications for what role a TA will take in fields. In mature fields, where rules, norms, and understandings are largely taken-for-granted by actors in the field associations, it will likely play a largely conservative and defensive role. In these cases, the TA's role will be limited since there is unlikely to be a strong need for a collective response in mature fields which are often relatively stable (Greenwood & Suddaby, 2006). In emerging fields, TAs are more likely to play a legitimating role (see Esparza et al., 2014) and will be more likely to be active at the field-level; however, rather than seeking to alter the field, the TA will be concerned with securing legitimacy for its members by highlighting the ways in which members will not disrupt the institutional status quo in the field (Gurses & Ozcan, 2015). In contrast, in disrupted fields, the role of TAs is likely to be active and aimed and is more likely to move beyond a conservative role. First, in disrupted fields there is a strong need for a collective response since the nature of the disruption is on the field itself and is not contained to one particular firm¹⁰ (Hoffman, 1999; Sine & David, 2003). The environmental accidents and resultant media coverage in the Canadian mining industry in the 1990s were not contained to one or a few firms. Instead, the entire industry was disrupted and thus needed to respond collectively rather than individually. As one MAC board members recalls of the time:

¹⁰ Though issue based fields are usually formed following disruptions, disrupted fields and issue fields are not synonymous. The central difference is that issue based fields can be characterized by periods of relative stability – as temporary truces are reached (Meyer & Höllerer, 2010). In these cases, although the field is still defined by the issue, it is not disrupted at all points. To summarize the difference between issue-based fields and disrupted fields is that an issue-based field pertains to field structure whereas disrupted fields pertain to field state. All different kinds of fields—those that form around technologies, markets, and issues—can all be in a state of emergence, maturity, or disruption.

. “ I remember I looked up the number of tailings dams, I found some website or some piece of information and there had been a tailings dam failure every year since 1964. This was kind of a regular thing. I went to myself, “What the fuck is going on here? This is crazy”. It just dawned on me that we need to ... if we can't be more accountable then we're toast and we deserve all of these criticisms that we're getting. That was kind of the genesis of TSM”

This quote shows that the disruptive events by individual Canadian mining firms triggered a broader disruption in the field. As a result, responses by individual firms were no longer sufficient to address the threats facing the industry. As a result, collective action was deemed the more appropriate form of response and MAC played a more active role. As a result, we can propose that:

P1: Associations are more likely to play an active role in field-level change following a disruption in the field than in mature or emerging fields

Reputational Interdependence - Another factor that shapes the extent to which collective action is required is the extent to which there is high reputational interdependence in a particular industry (Barnett & Hoffman, 2008). Reputational interdependence refers to the extent to which the reputation of one firm is likely to spill over to the reputations of other firms in the industry (Desai, 2011; Kang, 2008; Yu & Lester, 2008) Industries differ in the extent to which there are negative spillover effects for all firms in an industry (Barnett & Hoffman, 2008). When reputational interdependence is high, industries are more likely to respond communally and thus TAs will be active in these industries. Tucker (2008) highlights the importance of TAs in managing the collective reputation of an industry in his qualitative study of 24 large industries in the UK. Mining is an industry where there is a very high reputational interdependence and significant potential for negative spillover effects. For example, the tailings waste spills that occurred in the 1990s had a large negative reputational and financial impact on the entire Canadian mining industry. As a result, although individual mining companies were competitors, they all stood to benefit

from collective action in order to respond to the issues facing the industry since all firms are negatively impacted by the actions of each other. As a former CEO and MAC board member recalled:

“There was a view that we always get dragged down by the worst performer and it's often not a MAC member. In some ways, you can't do a lot about that, but we also felt that we were going to help our reputation and credibility through collective action. Individual actions have gone off in 12 different directions in the past, and weren't solving any problems for us.”

In these cases, TAs are more likely to play a key role in the field since firms are more likely to require TAs to be active since TAs act on behalf of the entire industry (Barnett, 2013). The importance of collective action has been found in a number of industries with a high level of reputational interdependence including the chemical industry (King & Lenox, 2000; Rees, 1997), forestry (Zietsma & Lawrence, 2010), and petroleum (Hoffman, 2001). In sum, we can say that the higher the reputational interdependence in an industry, the stronger the need for collective action and the more likely TAs will move beyond a conservative role in fields. Thus we can say:

P2: Associations are more likely to play an active role in field-level change if the industry they are representing has high reputational interdependence.

TA Autonomy and Control over Members

Scholars have long argued that trade associations differ in the extent to which they are representative of their members or exercise control over their members (Schmitter & Streeck, 1981; van Waarden, 1992). Existing research on TAs in organizational fields tend to view TAs as pure representatives (Esparza et al., 2014; Gurses & Ozcan, 2015). In these cases, there is no divergence in interests between TAs and their members. This appears to be an obvious point since TAs are funded by members. However, in certain cases TAs can move from pure representative organizations to what van

Waarden (1992) refers to as control organizations. TAs that are control organizations are still funded by members; however, these TAs have relative power over members and tend to dictate the direction of industry strategies.

The differences between “representative” TAs and “control” TAs have a number of implications for the role of TAs in the processes of field-level change. Specifically, representative TAs tend to primarily play a defensive or conservative role in fields whereby they reflect the interests of incumbents who are the beneficiaries of the institutional status quo. The majority of studies of TAs in fields tend to be portrayed as representative TAs (Barley, 2010; Fligstein, 2001; Gurses & Ozcan, 2015; Vermeulen et al., 2007). In contrast, “control” TAs tend to be more of a driver of its members’ actions than an unagentic vehicle for their interests. Van Wijk et al. (2013) provide a useful example of this in their study of the Dutch tourism industry. The TA they describe—although representing incumbents—acts largely as its own institutional agent and collaborates and interacts with social movement challengers to the incumbent firm. In their case, the TA went against the immediate interests of its members in its pursuit of a sustainable tourism program that had field-level implications. They were able to act independently of member interests without a severe consequence because its members depended on the TA for legitimacy in the market. This example highlights two important points. First, there are factors which contribute to the amount of autonomy TAs have from their members. Second, autonomy from their members increases the likelihood that TAs will play an active role in field-level change. I now describe the factors that increase TA autonomy from its members.

Membership Composition – The membership composition of trade associations also affects the amount of autonomy from and control over members that they have. Two features of membership—size and number—are particularly important. Trade associations differ widely in terms of the relative size of their members (Spillman, 2012). Nearly all of the largest companies in the world belong to at least one trade association; however, many small companies with just a small number of employees also belong to trade associations (see Esparza et al., 2014). In general, trade associations tend to have greater autonomy and

control over members when their members are larger companies (Van Waarden, 1992). The reasoning for this is that large companies may give the TA more leeway to pursue more activities than a membership composed of small organizations or individuals since larger companies often have the resources and infrastructure to participate and devote resources to TA activities aimed at field-level change. In the case of the Canadian mining industry, the membership of predominantly large mining companies afforded MAC the degree of autonomy that they needed to envision and begin to TSM programme, which was more substantive and robust than had been seen in the industry up until that point. As one executive from a prominent NGO suggested:

“MAC has the bigger corporations who, quite frankly, they're much more sensitive to reputational risk and big enough to be able to hire anthropologists and others who can try and present a softer, gentler side.”

This quote illustrates that the resource capabilities of large companies as well as their greater sensitivity to reputational risk makes them more willing to let trade associations act as leaders and shape industry-wide strategies and responses.

A second feature of membership that impacts the degree of autonomy that TAs have over their members is the number of companies who are members. Like size, TAs vary greatly in the number of members they have from single digits to thousands (Spillman, 2012). In general, TAs have less control over their members as membership gets larger (van Waarden, 1992). This is not unexpected since larger memberships provide less opportunity for TA staff to interact regularly with members in a group setting, which is often where the TA can engage in bridging work and the articulation of strategic frames. In MAC's case, their membership is small enough that every company can have a representative on MAC's board of directors. This would obviously be impossible for other TAs such as the Prospector and Developers Association of Canada (PDAC)—which represents the mineral exploration side of the industry—which represents thousands of single mineral prospectors and junior exploration companies. As

a result, MAC is able to more easily can engage and persuade members. As one industry actor described it:

“It's a manageable number of members. You only have maybe 30 or so... I think it's much easier. It's a much easier dynamic to navigate”.

Another aspect of a small membership which affords TAs more opportunities to exercise control over members is the degree of interest heterogeneity present. Where large memberships are likely to possess high levels of interest heterogeneity, in most cases small memberships are more likely to be aligned. In cases of low interest heterogeneity, TAs are more able to work with members and implement large scale strategies. In MAC's case, their small membership was largely aligned in terms of interests which afforded MAC more flexibility to maneuver and ultimately successfully frame the business case around TSM. An industry consultant argued:

“I think the members of MAC are all of a very similar mindset. That's why you can get a TSM program approved at MAC - that if you want to be a MAC member you got to do TSM.”

Thus, both the size and number of TA members impacts the degree of autonomy from members a TA has.

Thus we can say:

P3: Associations are more likely to play an active role in field-level change when their membership consists of a small number of large firms

Association Composition – While the membership composition plays an important role in shaping the level of control over members that a TA has, the composition of the TA itself also plays a role. Most research in the area tends to treat association staff as largely unagentive and largely as tools of its member

firms (Barnett, 2013; Greenwood et al., 2002; Vermeulen et al., 2007). This is certainly plausible in many cases – especially in instances when the TA is relatively small and executives from member firms act as the staff for a TA on a part time basis (Spillman, 2012). However, some TAs may be comprised of professionals who are not directly tied to any member firms or even the industry (van Waarden, 1992). As a MAC executive stated:

“I sometimes joke that I'm the least qualified person for this job for working in mining. I have no mining background.”

The role of diverse backgrounds has been a central aspect of MAC's structure for the last 25 years. Of MAC leaders and executives, the majority is comprised of individuals from a wide variety of backgrounds including government, academic, accounting, engineering, public relations, and NGOs. This variety of backgrounds exposed MAC to a wide variety of perspectives and logics that member firms would not have been embedded in (Pache & Santos, 2013a). In other words, the cognitive framework of MAC executives was likely to differ from those of its members based on the differences in the logics they were exposed to and embedded in. As a result, MAC was able to envision alternative courses of action that members alone would not likely have been able to produce. As one MAC executive stated:

“I think my boss in his wisdom was quite deliberate at choosing me for those very reasons, that I would look at things from the outside, that I would be critical, that I would think outside of the box and not just follow instructions but actually try to lead and direct the industry to some newer ways of looking at things.”

This dynamic was particularly evident in the formative stages of TSM. While MAC and its members made sense of how to respond to the threats facing the industry, the dominant response from member firms was to engage in an advertising campaign aimed at improving the reputation of the industry by influencing the general public. However, the unique perspective of MAC staff suggested that a more

substantive and long-term response that engaged key stakeholders was more likely to solve the problems facing the industry, which was largely in opposition to the perspective of the industry. This foresight and the subsequent development of TSM emerged largely out of the unique perspective of the MAC members. This idea is largely supported in the existing research in organizational institutionalism on institutional change stemming from the presence of multiple logics in organizations and the critical role of hybrid organizations in field-level change (Pache & Santos, 2013b). In sum, we can say that the more diverse a TA is in terms of backgrounds of its staff, the more likely its activities and strategies are going to diverge from the institutional status quo. Thus, we can say:

P4: Associations are more likely to play an active role in field-level change when their staff is embedded in multiple logics

Time Orientation – One of the defining features of TAs is their non-profit structure. This structure allows TAs to not face the same short-term financial constraints faced by their members. As a result, TAs are often oriented towards long-term issues and challenges that are facing the industry (Spillman, 2012). In this way, members use TAs to address long-term concerns that they themselves may not be able to do given the short-term shareholder pressures they are subjected to. As one MAC member stated regard trade associations:

“I think it is easier for them (trade associations) to take longer-term view, and again, I think it’s the essential role of them to be taking that longer-term view because trying to respond just to what’s popping up in the current year in the current real time isn’t providing the value that members expect.”

In some cases, member firms give TAs considerable leeway to pursue long-term strategies that have major implications for a particular industry and field. In other cases, members reign in the actions of TAs when they cannot be justified in the short-term. One of the factors that determine how much leeway will be

given by member firms to TAs is the time orientation of the industry itself. There is considerable variation between industries in terms of the business cycle and the extent to which financiers view the industry as a short-term or long-term investment. In the case of mining, the nature of the industry is long-term by definition. The life cycle of a mine can range from 15 to 100 years. Once a mineral deposit is found it takes a number of years and significant capital to get to the stage where minerals can be extracted. Further, at each stage, mining requires the support of government and the community in which the mine is operating for the project to continue. As one industry expert stated:

“The time frame of mining is by default generational because at least once the mine has been committed to, you're talking about building the mine and then seeing the mine through to its end when the minerals are exhausted or no longer economically viable for extraction and that's decades. There are very few other sectors that almost by definition have that long-term impact and perspective.”

Because of this long-term business cycle, mining is an industry where attention to long-term regulatory or social and environmental issues is more tenable than other industries. As a result, MAC members were willing to give MAC considerable leeway to address issues over the long-term. This helps shed light on why the members were convinced by MAC to pursue the TSM program instead of a more short-term solution like an advertising campaign. As one executive from a member firm stated about MAC and TSM:

“They've taken a long-term view at things. TSM is not a short-term thing. When we got into that in '98, whatever it was '98, '99, whenever the heck we got in there, it was not a short-term fix. Nobody expected that we were going to do something by Christmas and go home.”

A useful comparison to the long-term orientation of the mining production industry, the exploration side of the mining industry is comparatively short-term in orientation. Mineral exploration

involves individual prospectors or small teams searching for mineral deposits often in remote areas. Once a deposit has been found, the “junior” exploration company will sell the deposit to a large mining company which will begin the mining production cycle. A central objective for the exploration side of industry is to raise short-term capital to fund exploration in areas that they have reason to believe are likely to have a mineral deposit. PDAC, the TA for the exploration side of the industry, is given less leeway from its members to address and invest in long-term issues. One reason for this—as mentioned above—is the differences in resources available to junior exploration firms in comparison to large mining production companies. However, another reason is that the exploration side of the industry is more short-term in orientation than the production side. As a result, we can expect that industries that are longer-term in orientation are to be given more leeway to pursue long-term strategies and objectives that are likely to lead to field-level change. This leads to my next proposition:

P5: Associations are more likely to play an active role in field-level change if the industry is more long-term in orientation

Field-level Complexity – The extent to which TAs will have autonomy from and control over their members is also related to the level of institutional complexity in the field (Greenwood et al., 2011). In situations of high institutional complexity, where firms are confronted with competing and contradictory logics, practices, and courses of action, they are more likely to allow their trade association autonomy to navigate this environment for them. This is one of the defining differences between TAs and their members. As one former MAC executive stated regarding member firms:

“They're operating in a completely different, whatever, environment as you say, from the association. They're interested in the bottom line. They're interested in making money, keeping their shareholders happy, not necessarily looking at the long term.”

As this quote highlights, because members have their own immediate objectives, they will often give more control to TAs in situations where they are faced with a number of complex challenges. TAs have a greater capacity to handle situations of institutional complexity given their largely non-market focus and non-profit structure. As one NGO executive said about trade associations:

“They're using that unique position that they have to consider issues of collective importance which would be harder to take on if you were just one company doing it alone.”

If TAs have more autonomy and control in situations of high institutional complexity, then the question is raised as to what factors influence institutional complexity. A number of factors have been suggested in the literature (see Greenwood et al., 2011). Here I focus on two that are particularly relevant for fields defined by contested issues: fragmentation and centralization

Field Fragmentation –Fragmentation in an organizational field refers to “the number of uncoordinated constituents upon which an organization is dependent for legitimacy or material resources” (Greenwood et al., 2011: 337). Fragmented fields are characterized by a high degree of institutional heterogeneity and complexity as numerous uncoordinated actors and organizations coalesce around a particular issue, market, or technology (Pache & Santos, 2010). A well-documented example of a highly-fragmented field is the field of education (Meyer, Scott & Strang, 1987), since firms in the field rely on a large number of uncoordinated actors to survive. This differs from more unified fields (e.g. military) which rely on a few decision makers in order to survive (Pache & Santos, 2010). The field surrounding sustainability in Canadian mining was also particularly fragmented. Because the nature of mining not only relies on government permits and access, but also the “social license to operate” given by local communities and the general public, mining requires firms to be viewed as legitimate by a widely diverse set of actors that are not coordinated. As a result of this, mining companies were faced with a fragmented environment

where there was not one dominant set of rules, norms, and practices. As a result of this fragmentation, mining companies were subjected to a number of complex challenges—especially related to social and environmental issues.

Field Centralization - Field centralization focuses on the hierarchical power structure of field-level actors (Pasche & Santos, 2010). In highly-centralized fields, practices are standardized by a central actor. This dominant actor is usually government or funding agencies, but can also include professional and trade associations (Greenwood et al., 2011). Some fields will have multiple “nodes of centralized authority” which compete with each other to set the standards of field-level arrangements. For example, Greenwood et al. (2011) suggest that business schools rely on a number of centralized actors including governments, the business community, professional associations, and ranking and accreditation agencies. Thus, although the field in which business schools are embedded is centralized, it is also highly fragmented. In the Canadian Mining industry, there is only moderate centralization. At various stages in the period I chose to examine, government, NGOs, and MAC all operated as the centralized bodies governing the field.

As Greenwood et al. (2011) argue, as centralization decreases, institutional complexity in the field increases since the “lack of a centralized actor exposes organizations to competing yet authoritative institutional demands” (2011: 338). Thus, low centralization, I suggest, increases the amount of autonomy and control that member firms grant to TAs. Taken together, we can say that high levels of fragmentation and low levels of centralization in a field increases the institutional complexity of that field. This high level of institutional complexity thus gives TAs more autonomy from and control over their members. Thus we can say:

P6: Associations are more likely to play an active role in field-level change when the field its members are embedded in has a high level of institutional complexity

DISCUSSION

The conceptual framework I have developed aims to shed new light on the role that TAs play in organizational fields. Existing research on TAs in institutional processes has provided evidence of both a defensive conservative role (Bansal & Roth, 2000; Fligstein, 2001; Gurses & Ozcan, 2015; King & Lenox, 2000; Maguire & Hardy, 2009; Vermeulen et al., 2007) and a more active change-oriented role (van Wijk et al., 2013). These inconsistent findings hint at the need for a more theoretically developed and nuanced view of trade associations in fields. My objective in this section is to address this issue by outlining the conditions under which TAs are likely to move beyond a conservative role in fields and play a more active role in field-level change.

In the case of the Mining Association of Canada, the disruptive events of the 1990s and the emergence of challenges from government and NGOs put significant pressure on the industry to respond in some form. Rather than pursuing a reactive and defensive strategy that focused on impression management, MAC pursued TSM—a more long-term and robust solution than member firms were initially in favour of. Through a number of activities, MAC constructed a business-case frame around TSM for members while constructing a sustainability frame for external audiences in order to facilitate the development and institutionalization of the programme. TSM brought about a number of significant shifts in the field that have altered the rules, norms, and assumptions that underpin the field.

In this way my study is consistent with emerging research that suggests a more active role for associations in field-level change (Greenwood et al., 2002; van Wijk et al., 2013). However, my study also provides important boundary conditions around when TAs are likely to play an active, as opposed to a defensive role, in field-level change. In particular, there needs to be a strong need for collective action in the field for TAs to be deemed as necessary actors at the field level. This need for collective action, I have argued, is more likely in fields that are in periods of disruption and in industries where there is a high level of reputational interdependence. The series of tailings spills in the 1990s followed by the increased

media coverage of the mining industry provided a disruption strong enough that incumbents believed that collective action was required. Further, there was the commonly-held belief in the industry that they were “only as good as our worst performer” meaning that there was a high level of reputational interdependence in the industry. Once it has been decided by an industry that collective action is required, TAs become more important in field-level processes. However, the extent to which TAs are likely to diverge with their members and pursue a more active role in field-level change is shaped by the degree to which they have autonomy from their members. This is influenced, I argue, by the composition of their members, the composition of the TA itself, the time orientation of the industry, and the level of complexity in the field. In my case, MAC was able to push their members to accept the TSM programme largely because members were willing to grant MAC the autonomy of pursue what they felt was the best long-term response for the industry. Given that mining is an industry that requires a long-term orientation and that MAC members were large enough to have the organizational slack to allow MAC to introduce new cost and reporting burdens, MAC was able to develop TSM and persuade members to go along with it. Although MAC’s skillful employment of strategic frames was a critical part of persuading members to ultimately sign on, they would have never gotten to that point if they did not have the autonomy from members that they did.

My framework adds a more in-depth examination of the role of trade associations in organizational fields. Given that trade associations are defined by a central tension around needing to be viewed as legitimate by both their member firms as well as external audiences such as government and NGOs (Schmitter & Streeck, 1981), their behaviour in fields is likely to be dynamic and multifaceted. As a result of this inherent tension, TAs may engage in activities that seek to block or prevent field-level change at some times and engage in activities that facilitate field-level change at other times. In other cases, TAs may engage in some strategies aimed at defending the field in one regard while changing it in another. Collins and Roper (2005) use the term “strategic schizophrenia” to describe these “contradictory strategies” (Collins & Roper 2005) of TAs. However, my study sheds new light on this issue. In the case

of MAC, the introduction of TSM was an important change that altered the norms of how the industry conducted its business, interacted with stakeholders, and communicated to the public. It also shifted power relations in the field by giving external stakeholders input into incumbent operations through the community of interest panel. As a result of these changes occasioned by the TSM program, the field began to shift from one defined by conflict between incumbents and challengers to one increasingly focused on collaboration between these parties. In addition, the introduction of TSM and the strategic frames that were employed for internal and external audiences led to a shift in how these audiences viewed their own interests. MAC's framing of TSM to both audiences allowed both parties to view the program as a way to meet their own interests. TSM, thus, was the main mechanism through which the field shifted from divergent interests to convergent interests. In this way, the introduction of TSM can be viewed as a large shift to the field and the rules, norms, and understandings that govern it.

On the other hand, TSM was internally discussed as a way to prevent larger changes to the field which could have come in the form of new regulations or laws regarding how mining companies operate. TSM thus acted as a way for the industry to maintain control of the process in a way that externally-imposed regulations would not and thus preserved existing assumptions in the field around the technical expertise of miners. As a result, the field saw a shift around how social and environmental issues were addressed from one that was based on compliance with laws and regulations to one that was based on voluntary measures and proactive measures. In this way, the introduction of TSM affected change in the field at one level while reinforcing existing arrangements at another. As a result, the change in the field tends to resemble what van Wijk et al. (2013) refer to as "incremental institutional change" as opposed to radical change (e.g. Greenwood & Hinings, 1996).

As my findings show, MAC's active role in ushering in the TSM program and the field-level change that it facilitated was motivated by a long-term objective to preserve the autonomy of the industry and to prevent increasing external control of the industry by regulators. Hence, MAC was willing to push for field-level change in order to control the ultimate scope and direction of change that the field

underwent. This was done by MACs intricate and dynamic use of strategic frames aimed at both incumbent firms and challenging audiences which often acted as a filtering mechanism where one party's interests were filtered through a strategic frame that MAC targeted to the other party. In this way, MAC's actions resemble the argument made by Fligstein and McAdam (2011: 6) that associations aim to ensure "the overall smooth functioning of the system". MAC's desire to institutionalize TSMs and the norms it engendered was driven by the deep belief that failure to do so could lead to a field-wide crisis that could have deinstitutionalized the rules, norms, and understandings that enabled the mining industry to survive and function. Viewed from this perspective, MAC's active role in field-level change may have been motivated to protect certain assumptions and understandings that were deeply embedded in the field.

This insight about TAs in fields adds depth to research on institutional change and maintenance more generally. Most existing studies of institutional processes in fields tend to portray cases of either 'change' or 'maintenance' in field-level institutions. Although this may be the case in certain instances, institutions exist at multiple levels and changes at one level do not always occasion similar changes at other levels (Hoffman, 1999). For example, Scott's (2001) three pillars of institutions, the regulative, normative, and cognitive, are argued to exist at different levels of analysis and impose different levels of constraints on actors. The regulative pillar is the least taken-for-granted and is often contested. The normative pillar is more taken-for-granted but still contested and mutable. The cognitive pillar is deemed the most taken-for-granted and thus the least susceptible to change. Changes in practices and formal rules do not always result in changes at the cognitive level. In some cases, changes in practices and norms may work to reinforce existing assumptions at the cognitive level. In the case of the Canadian Mining industry, the practice changes that TSM spurred worked to preserve assumptions around internal control and expertise that incumbent actors sought to preserve. In this way, this study takes a step toward enhancing our existing understanding of institutional change by highlighting the nested nature of field-level institutions.

My framework also aims to provide a more comprehensive understanding of the relationship between trade associations and their members. In particular, my analysis moves away from portrayals of TAs as solely unagentic vehicles of their members' interests. Nearly all existing research on TAs in fields suggests that TAs are ultimately controlled by large incumbent firms (Barnett, 2013; Greenwood et al., 2002; Gurses & Ozcan, 2015). As a result of this conceptualization, TAs are not treated as analytically distinct actors in fields and instead are included under the umbrella of incumbents (Maguire & Hardy, 2009; Vermeulen et al., 2007). However, my study makes a strong case as to why TAs should be treated as analytically separate from incumbents in the industry. As my findings suggest, TSM emerged as an alternative way to respond to the pressure put on incumbents by external challengers. Although member input and interests played a role in MAC's response, the specific makeup and ultimate direction of TSM was primarily driven by MAC who engaged in a number of specific activities that shaped how the field evolved. These specific activities included conducting external research with stakeholders, hiring consultants, and pushing members to adopt a long-term orientation. These activities were not the norm in the industry and it is not likely that individual firms would've engaged in them. MAC, with its mandate to focus on long-term issues in the industry without the short-term pressures facing member firms, were effectively able to persuade members to act collectively in a manner that would not have been possible without the association. Thus, this study presents a much stronger case for associations as institutional entrepreneurs than existing research. Further, my study also provides evidence of TAs being more proactive in processes of institutional change than previous research. For example, in Greenwood et al's (2002) study it was not the association who initiated the change, but rather the central incumbent accounting firms. Associations did not get actively involved in the change until the theorization stage of the change process. In contrast, in the present case, though the change was precipitated by disruptive events and resultant pressure on incumbents from challengers, MAC very much played an active role in initiating the change in the field. Thus, my study makes the case for a more prominent role for TAs in

research on institutional processes and points to a reorientation of research on contested issue fields with trade associations as central actors in these processes.

Trade Associations and Corporate Social Performance

My study also offers practical implications relating to the impact of trade associations on corporate social and environmental performance. Existing research in the area has suggested that since TAs often lobby against government regulations around social and environmental issues on behalf of their members, that they act as an impediment to the improvement of social and environmental performance (Barley, 2010). Further, scholars have argued that industry-wide standards developed by trade associations may not be an adequate means to improve social and environmental performance since these programs usually do not come equipped with sanctions the way laws and regulations do (King & Lenox, 2000). These arguments have much to recommend them; however, this study provides insight into another more positive (literally and figuratively) relationship between trade associations and corporate social performance. The most striking aspect of the case of the evolution of social and environmental sustainability in the Canadian mining industry was that MAC was able to make substantial steps towards improving industry social and environmental performance when many of their member firms were not willing to do so on their own.

During the initial development of TSM, when the mining industry was under great public scrutiny and was being increasingly pressured by government and NGOs for social and environmental performance improvements, the majority of MAC members were in favour of pursuing a short-term initiative like an advertising campaign to address these issues. It was MAC who argued to its members that a response of this nature was not adequate and that a response that involved improving performance around social and environmental performance was necessary to resolve the issues facing the industry. The nature of MAC's proposed response was rooted in MAC's long-term orientation. Since MAC did not have the immediate shareholder pressures that its members had, they were more able to envision and design a long-term plan

to address sustainability issues in the industry. Research is increasingly highlighting the importance of time orientation in understanding corporate responses to social and environmental issues (Bansal & DesJardine, 2014; Slawinski & Bansal, 2012; Slawinski et al., 2015). This research argues that a short-term orientation is a particular impediment to environmental performance since the benefits of improving environmental performance—including cost reductions and improved reputation—cannot be observed in the short-term and the initial resources needed to address these issues may, in fact, lower financial performance in the short-term. As a result, long-term planning around social and environmental performance is difficult for firms subjected to short-term pressures. TAs, on the other hand, are more likely to be able to pursue long-term objectives since their structure does not impose the same short-term pressures facing their members.

Thus, my findings counterintuitively suggest that TAs may be more able to envision and develop programs and initiatives aimed to improve social and environmental performance than their members in many cases. This differs from the existing conception of TAs as impediments to improving corporate social and environmental performance. However, there are a few important caveats. First, because TAs are still ultimately accountable to their members, there is only so far that they can go in pursuing social and environmental objectives. This means that the initiatives of TAs around social and environmental issues are likely to be limited to programs that do not involve a significant trade-off between social and environmental performance and financial performance. Moreover, these initiatives will have to be clearly justifiable to members as being “win/win”. Of course, not all practices or programs aimed at addressing social and environmental issues are positive sum solutions. This is why regulations appear to be a necessary means to address a number of these issues (King & Lenox, 2000).

A second caveat of the relationship between TAs and corporate social and environmental performance is that even though the structure of TAs enables a long-term orientation, the TA is still required to convince members to pursue these objectives. If a member disagrees with the approach that a TA is pursuing, it can leave the TA and not be required to participate. Thus, a TAs ability to successfully

persuade their members on a particular course of action is influenced by the degree of autonomy from and control over members that the TA possesses (van Waarden, 1992) as well as the need for an industry to engage in collective action (Barnett, 2006). I have aimed to develop the factors that contribute to these two conditions. In any case, my study helps to elucidate the mechanisms through which TAs can shape corporate social and environmental performance at the industry-level and the conditions that might amplify or reduce the strength of this relationship.

A third caveat is related to the broader question of whether trade association-controlled social and environmental programs are intended to actually address social and environmental performance or if these programs are simply attempts at greenwashing in order to prevent more robust external means of improving corporate social performance. In the case of TSM, there are a number of areas where the program may not be sufficient at improving social and environmental performance. For instance, the program is often critiqued for focusing on management systems instead of more outcome-based measures. In other words, if the management system is appropriately in place then companies are given high scores. However, there is little in TSM that deals with instances where these management systems are decoupled from the actual practices of the company. This issue came to a head recently when a MAC member company—Imperial Metals—had giant waste spill at their Mount Polley mine in British Columbia. Although Imperial was reporting on TSM and appeared sufficient in the area of tailings management, the accident still occurred and caused significant environmental damage when the four square kilometre sized tailings pond breached and emptied into the surrounding lakes. MAC's official response was that Imperial Metals had only been a MAC member for two years and their operations had not been subjected to the three year external verification that TSM requires. Even with this, the Mount Polley disaster raised a number of questions about the prospects of TSM for improving the industry. It also raised questions about whether stricter government regulations could have prevented the spill and was TSM to blame for a lack of stricter regulations?

These criticisms of TSM do raise concerns about the possibilities of trade associations improving corporate social performance. Criticisms notwithstanding, the changes occasioned by TSM have shifted the way that industry interacts with challenger audiences and civil society more generally and also successfully altered how the industry makes sense of addressing social and environmental issues. These changes, I argue, are more likely to lead to improvements in CSP than would be the case if these changes had not occurred. Whether they are sufficient is another worthwhile question that is outside the scope of my study.

FUTURE RESEARCH

Much of the early research on TAs in management and organizational theory focused on the population dynamics of TAs and were quantitative in their focus (Staber & Aldrich, 1983; Aldrich & Staber, 1988). As a result, the focus of TAs became more about their founding and dissolution than their internal workings. Thus, one of the central motivations for this study was to examine trade associations in-depth in order to build a more comprehensive understanding of these poorly understood organizations (Barnett, 2013). In order to do this, I restricted my focus to one TA in order to adequately delve into the organization in an in-depth fashion. In doing this, I likely sacrificed breadth for depth and external validity for internal validity. This compromise was appropriate, I believe, given the dearth of in-depth studies of TAs. However, an obvious question that emerges is how generalizable are my findings to other TAs? I have made attempts throughout the text to address this issue. In particular, in developing propositions around the role of TAs in field-level change, I have created some boundary conditions around the role of TAs in field-level change. MAC had a number of features not possessed by other TAs as figure #7 shows. Thus, in developing the propositions, I have attempted to address the issue of generalizability by highlighting the conditions under which TAs are likely to play an active role in field-level change and when they are less likely to do so.

This opens up a fruitful new avenue for research on the role of TAs in field-level processes. In particular, studies which test the propositions that I have developed would be an excellent way to tease out and further refine the factors which contribute to TAs playing an active role in field-level change. Although TAs are traditionally closed off organizations with limited access given to outside parties, many of the factors I outline from the field, industry, and association may be obtained without having access to the internal workings of the association. As a result, larger comparative studies or quantitative studies of TAs would be particularly welcome in uncovering the relationships between field, industry, and association-level factors and field-level change.

In addition to gaining a better understanding of the role of TAs in field-level processes, my study also helps to stimulate further research on TAs as distinct entities in industries and fields as opposed to a mirror of their members. By examining the TA in-depth I was able to gain an understanding of the conditions under which TAs become agentic actors that can drive members. Future research might dive further into the dynamic between TAs and their members to gain additional insights into this process. Of course, this opens up a broader discussion around the organizations that exist in organizational fields that are designed by firms as a means of collective action. These organizations include trade and peak associations, corporate front groups (Beder, 1998), and other ad hoc organizations (Barley, 2010). Our understanding of these organizations is very underdeveloped. In general, these organizations are viewed largely as extensions of individual firms who fund and staff these organizations. However, as my findings illustrate, these organizations may be more than collective mirrors of their individual members. In the case of TAs, the structural differences of TAs and their members along with differences in institutional embeddedness of TAs and member firms created a slight divergence between these two parties in how to address social and environmental issues in and around the industry. This points to the importance of treating TAs and other organizations of business collective action as distinct entities often with a set of interests and ideas all their own. Thus, as future research begins to explore these organizations in more detail, attention should be given to cases when they move beyond their members and begin to take on a

life of their own. Although these organizations are clearly shaped and influenced by their members and funders, they are also shaped and molded by their structure, composition, and environment.

A central contribution of my study is the capturing of both the internally and externally-directed framing strategies of TAs. Admittedly, my analysis is centred around the TA itself. As a result of this focus, I did not have the real-time internal data for MAC members, regulators and NGOs to internally capture how they made sense of the framing around TSM. However, the depth and scope of confidential archival data I was able to obtain coupled with over 100 interviews that went well beyond MAC staff members helped to mitigate this problem. As a result, my findings do provide evidence that suggested that the strategic frames that MAC employed did in fact shape the sensemaking of both incumbent and challenger audiences. In any case, my study highlights calls for research to show the dynamics between the sensegiving strategies of TAs and the sensemaking of internal and external audiences. Because sensegiving and sensemaking are deeply interrelated processes (Gioia et al., 1991), exploring the interaction between sensegiving and sensemaking for both internal and external audiences would further enhance our understanding of the role of internal and external sensegiving via strategic framing. Doing so would require unique access to both TAs and the internal and external audiences they interact with which would pose substantial challenges in terms of access and design.

CONCLUSION

With the shift in organizational institutionalism from the examination of isomorphism and stability to the examination of evolution and change, we have seen a huge amount of research aimed at understanding the field-level dynamics of institutional change. In organizational fields defined by contested issues, field-level change has been shown to be the result of ongoing contestation between incumbent organizational actors and challengers who seek to disrupt the institutional status quo (Hoffman, 1999; Maguire & Hardy, 2009; Zietsma & Lawrence, 2010). Although these studies have shed considerable light on the processes and mechanisms of field-level change, they have given scant attention

to the role of the organizations that act as intermediaries between challengers and incumbents such as trade and professional associations. This dissertation aims to reorient research in this area by providing evidence that the importance of trade and professional associations cannot be ignored when understanding field-level evolution and change – especially in those fields that are defined by contested issues. In particular, I have aimed to show that TAs are often more than a simple collective voice for incumbent actors and instead can use their unique intermediary field position to shape and influence how both incumbents and challengers make sense of issues over time. This ongoing sensegiving impacts the ultimate nature and direction of change in the field.

Overall, I have sought to make the case that intermediary organizations such as trade and professional associations are not simply peripheral actors in processes of field-level change, but rather are central actors in these processes. As a result, to gain a better understanding of how fields evolve the way they do in terms of the rules, norms, and understandings that govern them, we need to move TAs to the forefront of our analyses. I am hopeful that this dissertation serves as a meaningful early step in this direction.

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Appendix A: Towards Sustainable Mining Guiding Principles

As members of the Mining Association of Canada, our role is to responsibly meet society's needs for minerals, metals and energy products. To achieve this we engage in the exploration, discovery, development, production, distribution and recycling of these products. We believe that our opportunities to contribute to and thrive in the economies in which we operate must be earned through a demonstrated commitment to sustainable development.*

Accordingly, our actions must demonstrate a responsible approach to social, economic and environmental performance that is aligned with the evolving priorities of our communities of interest.** Our actions must reflect a broad spectrum of values that we share with our employees and communities of interest, including honesty, transparency and integrity. And they must underscore our ongoing efforts to protect our employees, communities, customers and the natural environment.

We will demonstrate leadership worldwide by:

- Involving communities of interest in the design and implementation of our Towards Sustainable Mining initiative;
- Proactively seeking, engaging and supporting dialogue regarding our operations;
- Fostering leadership throughout our companies to achieve sustainable resource stewardship wherever we operate;
- Conducting all facets of our business with excellence, transparency and accountability;
- Protecting the health and safety of our employees, contractors and communities;
- Contributing to global initiatives to promote the production, use and recycling of metals and minerals in a safe and environmentally responsible manner;
- Seeking to minimize the impact of our operations on the environment and biodiversity, through all stages of development, from exploration to closure;
- Working with our communities of interest to address legacy issues, such as orphaned and abandoned mines;
- Practicing continuous improvement through the application of new technology, innovation and best practices in all facets of our operations.

In all aspects of our business and operations, we will:

- Respect human rights and treat those with whom we deal fairly and with dignity.
- Respect the cultures, customs and values of people with whom our operations interact.
- Recognize and respect the unique role, contribution and concerns of Aboriginal peoples (First Nations, Inuit and Métis) and indigenous peoples worldwide.
- Obtain and maintain business through ethical conduct.
- Comply with all laws and regulations in each country where we operate and apply the standards reflecting our adherence to these Guiding Principles and our adherence to best international practices.
- Support the capability of communities to participate in opportunities provided by new mining projects and existing operations.
- Be responsive to community priorities, needs and interests through all stages of mining exploration, development, operations and closure.
- Provide lasting benefits to local communities through self-sustaining programs to enhance the economic, environmental, social, educational and health care standards they enjoy.

* *MAC draws on the 1987 Brundtland Commission definition of Sustainable Development:
“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*

** *We use the term Communities of Interest to include all of the individuals and groups who have or believe they have an interest in the management of decisions about our operations that may affect them. This includes: employees, contractors, Aboriginal or indigenous peoples, mining community members, suppliers, customers, environmental organizations, governments, the financial community, and shareholders.*

December 2004

Appendix B: TSM Assessment Protocol

A Tool for Assessing Energy Use and Greenhouse Gas Emissions Management Performance

Introduction

Launched in 2004, Towards Sustainable Mining (TSM) is an initiative of The Mining Association of Canada designed to enhance the industry's reputation by improving its performance. MAC members subscribe to TSM guiding principles, a set of commitments that addresses all areas of our industry's performance.

These guiding principles are backed by specific performance indicators, which member companies began reporting against in 2004. These indicators are designed to identify the industry's current performance in key performance areas, and point to actions that could be taken to improve it. Areas for which performance indicators have been developed include tailings management, energy use and greenhouse gas emissions management, Aboriginal and community outreach, crisis management planning, biodiversity conservation management and safety and health.

This document provides a tool to assist companies in the assessment of the standard of energy use and greenhouse gas emissions management currently being implemented by their facilities, in conformance with the TSM energy use and greenhouse gas emissions management performance indicators. It enables key performance indicators to be segregated and performance improvements for each indicator tracked year to year. The use of this protocol also enhances the consistency of assessments conducted across companies. In addition, this tool has been designed to enable external verification of company performance, consistent with the TSM verification system and the initiative's commitment to transparency and accountability.

In 2009 the Mining Association of Canada endorsed the International Council on Mining and Metals' (ICMM) policy on climate change, recognizing that comprehensive and sustained global action is required to reduce the scale of human-induced climate change and to adapt to its impact. The energy use and greenhouse gas emissions management protocol is an important tool to assist mining companies to demonstrate that they are implementing policy commitments such as those in ICMM's policy on climate change. Through the development of comprehensive management systems, members of the Mining Association of Canada are establishing systems to monitor and reduce their energy consumption and greenhouse gas emissions.

Assessing Energy Use and GHG Emissions Management Implementation

The purpose of the assessment protocol is to provide guidance to the member companies in completing their evaluation of energy use and GHG emissions management against TSM indicators. The assessment protocol sets out the general expectations of MAC for energy use and greenhouse gas emissions management by its member companies in support of the TSM initiative. Assessment should also:

Assist member companies to develop capacity to monitor and improve performance; and

Provide a basis for company assurance

What are energy use and greenhouse gas (GHG) emissions?

Energy use refers to the consumption of fossil fuels, electric power, solar energy, steam etc.

Greenhouse gases (GHGs) generally refer to the following:

Carbon Dioxide (CO₂)

Methane (CH₄) Nitrous Oxide (N₂O)

Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs)

Sulphur Hexafluoride (SF₆)

As with any assessment of a management system, professional judgment is required in assessing the degree of implementation of a system indicator and the quality of management processes and intervention. Application of this protocol will therefore require a level of expertise in auditing and systems assessment and some knowledge of and experience in the practice of energy use and greenhouse gas emissions management. This assessment protocol provides an indicator of the level of implementation of energy use and greenhouse gas emissions management systems in support of the TSM initiative and is not, of itself, a guarantee of the effectiveness of energy use and greenhouse gas emissions management activities.

Performance Indicators

Three performance indicators have been established.

1. Energy use and greenhouse gas emissions management systems
2. Energy use and greenhouse gas emissions reporting systems
3. Energy and greenhouse gas emissions performance targets

Five levels of performance are identified for each indicator. Criteria further define performance at each level, as illustrated below.

Energy Use and Greenhouse Gas Emissions Management Assessment Criteria	
Level	Criteria
C	No systems in place; activities tend to be reactive; procedures may exist but they are not integrated into policies and management systems
B	Basic systems/processes developed; comprehensive system planned and under development
A	Comprehensive systems/processes are developed and implemented
AA	Integration into management decisions and business functions
AAA	Excellence and leadership

Specific criteria for each performance indicator are provided in subsequent tables to enable the assessor to determine an appropriate level of performance (Levels C-AAA).

The assessor is required to select the level that most clearly represents the status of the operation. Only one level can be selected for each indicator, and it can be chosen only if all criteria for that level and all preceding levels have been met.

Where a performance element or indicator is not relevant, then an assessment of N/A should be assigned.

The goal of each MAC member is to achieve, at a minimum, a consistent “A” ranking on the TSM Energy Use and Greenhouse Gas Emissions Management assessment and to work towards continuous improvement.

Facility-level Assessments

Respondents are expected to provide facility-level assessments for each specified indicator.

By “facility-level assessments”, it is intended that companies will complete an assessment and report on energy use and greenhouse gas emissions for each distinct operating unit, or facility, of the company. It is recognized that companies may categorize their facilities in different ways.

Facility-level reporting has been found to be the most reliable, informative and useful approach for performance evaluation. The TSM on-line performance reporting database has been designed to facilitate assessment on a facility-by-facility basis.

Assessment Process

It is recommended that the assessment be completed using a process of interview, discussion and document review, including representative site management, operations and environmental personnel. A level of expertise in auditing and systems assessment and some knowledge of and experience in the practice of energy-use management, energy conservation, greenhouse gas emissions calculations, etc., is required.

Only one level can be selected for each indicator, and it can be chosen only if all criteria for that level and all preceding levels have been met. No partial levels of performance (e.g. B+) can be reported. Where a performance element or indicator is not relevant, then an assessment of N/A should be assigned.

Where an operation is shared between two parties, e.g. a joint venture, the two parties are encouraged to discuss amongst themselves who should complete the assessment, whether it should be undertaken jointly or divided so that the results reflect the appropriate activities of each company.

Structure of the Assessment Protocol

For each indicator, the protocol provides:

A statement of purpose that expresses the spirit and intent of the indicator

Assessment criteria for each level of performance

Supporting guidelines to help the assessor to understand the general scope of each indicator and to act as a framework for reviewing documentation and conducting interviews necessary for the assessment of the company's (or facility's) performance

Frequently Asked Questions (FAQs) that provide further information, such as definitions for key terms and answers to common questions that arise.

1. ENERGY USE AND GREENHOUSE GAS EMISSIONS MANAGEMENT SYSTEMS

Purpose:

To confirm that systems are in place to manage energy use and greenhouse gas emissions. This indicator applies to facilities and/or business units for which energy use and GHG emissions are deemed to be material (see FAQs).

Energy Use and Greenhouse Gas Emissions Management Systems	
<u>ASSESSMENT CRITERIA</u>	
Level	Criteria
C	No formal management system in place.
B	Basic energy use and greenhouse gas emissions management system established that includes: demonstrated senior management commitment to manage energy use and GHG emissions at the facility level facility-level responsibility for energy use and GHG emissions assigned to department or individual (e.g., Energy Leader) established processes to determine energy consumption sources and associated GHG emissions on a defined frequency for sources accounting for substantial consumption and/or offering considerable potential for energy performance improvement and with a level of disaggregation by major process activity (e.g., mill, mine, smelter, refinery, etc.) identification and estimation of significant sources of non-energy GHG emissions standard quantification and estimation methodologies used to convert energy and GHG emission data into comparable units, including process emissions data records of facility level data are maintained.
A	Comprehensive energy use and GHG emissions management system established that includes these additional elements: facility or business unit have identified and annually reviewed what energy and emissions sources are material according to their established criteria clear accountability for energy use and GHG emissions management assigned to operational managers energy data is reviewed regularly and integrated into operator actions for energy intensive processes actions and process controls related to energy use and GHG emissions are included in management systems for material sources general energy and GHG awareness training is provided to personnel with additional training for key personnel

Energy Use and Greenhouse Gas Emissions Management Systems ASSESSMENT CRITERIA (continued)	
AA	Energy use and GHG emissions are considered in business planning at the facility and/or business unit level. Energy use and GHG management system has been subject to internal or external verification.
AAA	Energy use and GHG management system is integrated into a broader sustainable business strategy that includes at least 2 of the following: procurement and supply chain management policies that incorporate energy efficiency and GHG reduction criteria voluntary corporate investments in research and development, feasibility studies and/or demonstration of technologies and/or new processes that target energy efficiency and reduced GHG emissions. corporate investments in renewable energy projects and/or energy recovery projects participation with communities of interest to improve energy efficiency and reduce GHG emissions (e.g., community events, environmental non- government organizations, government energy efficiency programs)

**Energy Use and Greenhouse Gas Emissions Management Systems
FREQUENTLY ASKED QUESTIONS**

#	FAQ	PAGE #
1	Can corporate documentation be used to demonstrate facility-level commitment?	See page 11
2	What are standard quantification and estimation methodologies?	See page 11
3	What is a major process activity?	See page 11
4	What is meant by “energy data is reviewed regularly and integrated into operator actions for energy intensive processes”?	See page 11
5	What is meant by “actions and process controls related to energy use and GHG emissions are included in management systems for material sources”?	See page 11
6	Can a facility with distinctly different production processes have separate Energy/GHG Emissions Performance targets i.e. one for each production process?	See page 12
9	What dictates whether energy use and/or GHG emissions are material to a facility or business unit?	See page 12
10	What is considered a material fuel source?	See page 12
11	What is the threshold for significant sources of non-energy GHG emissions?	See page 12
19	Can investments in renewable energy that provide benefits of offsets for regulatory compliance fulfill the requirements of corporate investments under indicator 1 Level AA?	See page 14
20	Can a facility or business unit develop a single plan incorporating both energy and GHG emissions management?	See page 14
23	What does “formal” mean?	See page 15
24	What is a “system”?	See page 15
25	What does “accountability” mean?	See page 16
26	What does “responsibility” mean?	See page 16

27	What does “business unit” mean?	See page 16
29	What does “defined frequency” mean?	See page 16
30	What does “established criteria” mean?	See page 16

Energy Use Management Systems

SUPPORTING GUIDELINES

Through interview and review of documentation, determine:

That formal systems are in place for energy use and greenhouse gas emissions management which meet all the requirements of level B.

The level of accountability for energy and greenhouse gas emissions management.

The level of sophistication of energy and greenhouse gas emissions measurement and analysis systems.

The level of integration of energy use and greenhouse gas emissions management into the business planning of the facility/company.

That operators have the procedures, instructions and systems to manage energy use and Greenhouse Gas Emissions.

The level of training in energy use and greenhouse gas emissions management provided.

That internal/external verification of the energy use and greenhouse gas emissions management system is conducted and the results reported to senior management.

That the results of verification are acted upon through formal action plans containing, as a minimum, actions, assigned responsibilities and timelines for completion.

The extent to which the company and/or facility has integrated the energy use and greenhouse gas emissions management system into a broader sustainable business strategy.

2. ENERGY USE AND GREENHOUSE GAS EMISSIONS REPORTING SYSTEMS

Purpose:

To confirm that energy use and GHG emissions tracking and reporting systems are in place for internal use and for public reporting. This indicator applies to all facilities whether energy use and GHG emissions are deemed to be material or not (see FAQs).

Energy Use and Greenhouse Gas Reporting Systems	
ASSESSMENT CRITERIA	
Level	Criteria
C	No energy use or GHG emissions reporting system in place.
B	Basic energy use and GHG emissions reporting system established that includes: a facility-level reporting system for energy use and GHG emissions energy use and GHG emissions performance results are reported annually at a facility level to management.
A	Comprehensive energy use and GHG emissions reporting system established that includes: energy use and GHG emissions performance results are reported regularly at a facility level to management to inform decision making annual public reporting of energy use and GHG emissions where offsets are used by the facility or business unit to meet commitments, public reporting includes: the amount of offsets as a percentage of total emissions generated at the facility and/or at the business unit level, and <ul style="list-style-type: none"> o the source and nature of the accreditation of offsets
AA	Energy use and GHG emissions reporting system is internally verified Annual public reporting of performance ¹ (against target) Overview of corporate energy and GHG emissions management strategy is publicly available
AAA	Energy use and scope 1 and 2 GHG emissions reporting systems are externally verified. Some scope 3 GHG emissions are included in reporting.

¹The combination of energy consumption and mineral production data can significantly compromise a company's position vis-à-vis its competition, particularly in instances where there are relatively few global competitors (e.g. iron ore). This may affect a company's ability to disclose certain types of information on energy use and GHG emissions. Necessary limits on public reporting for competitive reasons should not prevent a facility from satisfying level A criteria. Where information is not disclosed, reporting should include a list of information omitted and a reason for the omission.

Energy Use and Greenhouse Gas Reporting Systems

FREQUENTLY ASKED QUESTIONS

#	FAQ	PAGE #
6	Can a facility with distinctly different production processes have separate Energy/GHG Emissions Performance targets i.e. one for each production process?	See page 12
7	If a facility uses multiple targets, does the site have to meet all targets before it achieves a Level A rating?	See page 12
8	In some instances, underground mines are developing new production zones at much greater depth and the energy intensity becomes greater because of the extra energy required for ventilation, pumping, cooling, hoisting and sustaining the infrastructure at depth. What methodology can be used to create a practical target in these cases?	See page 11
14	Can offsets be used to meet performance targets?	See page 13
21	What are Scope 1, Scope 2 and Scope 3 emissions?	See page 15
22	What is verification?	See page 15
27	What does “business unit” mean?	See page 16
28	What does “offset” mean?	See page 16
29	What does “defined frequency” mean?	See page 16
31	What does “additionality” mean?	See page 16

Energy Use and Greenhouse Gas Reporting Systems

SUPPORTING GUIDELINES

Through interview and review of documentation, determine:

Processes the facility has in place for tracking and reporting on energy use and GHG emissions production (e.g. procedures etc.).

That consistent approaches to reporting are used (i.e. energy types, energy units, emissions sources).

Who is responsible for tracking, reporting and approval of reports, etc.

That data collectors have appropriate skills in energy use and GHG emissions tracking and reporting.

How often are energy use and GHG emissions reported and how the data is used (internal or external reporting, performance assessments, etc.).

That systems are in place for internal/external verification of the energy use and GHG emissions production reporting system.

3. ENERGY AND GREENHOUSE GAS EMISSIONS PERFORMANCE TARGETS

Purpose:

To confirm that energy and GHG emissions performance targets have been established at each facility or business unit level².

This indicator applies to facilities and/or business units for which energy use and GHG emissions are deemed to be material (see FAQs).

Energy and GHG Emissions Performance Targets	
ASSESSMENT CRITERIA	
Level	Criteria
C	No energy or GHG emissions performance targets have been set for the facility and/or business unit.
B	Energy and GHG emissions performance targets have been set for the facility and/or the business unit, and performance strategies have been developed that are consistent with energy policy and/or commitments to improve performance.
A	Energy and GHG emissions performance targets for the facility and/or business unit are met in the reporting year. In establishing objectives and targets, the facility or business unit has considered significant energy uses identified in their energy management system as well as its financial, operational and business conditions, legal requirements, technological options, the views of potentially affected parties and opportunities to improve energy performance.
AA	Facility and/or business unit has met its energy and GHG emissions performance targets for 3 of the past 4 years. Energy and GHG emissions performance have been internally or externally verified.
AAA	Some performance strategies or projects meet an additionality test (See FAQ). 2 of the following: set ROI threshold to determine criteria for implementing energy efficiency or GHG reduction projects and demonstrate implementation set continuous improvement targets that demonstrate reductions based on historical trends investments in new technologies and/or new processes have resulted in meaningful reductions

² Recognizing that climate change is a global issue and that the geographic location/source of GHG emissions doesn't matter, companies are encouraged to set performance targets that achieve the greatest reductions at the lowest cost, regardless of location.

Energy and GHG Emissions Performance Targets

FREQUENTLY ASKED QUESTIONS

#	FAQ	PAGE #
9	What dictates whether energy use and/or GHG emissions are material to a facility or business unit?	See page 12
12	What constitutes an energy use or GHG emissions performance target?	See page 13
13	What should be considered during the process of selecting targets?	See page 13
14	Can offsets be used to meet performance targets?	See page 13
15	Do targets have to apply to the entire facility or business unit?	See page 14
16	How can a facility or business unit express energy reduction targets?	See page 14
17	If a business unit target is achieved by realizing reductions at a single facility do all facilities in that business unit get credit for the reduction?	See page 14
18	How is progress against a multi-year emissions target and energy efficiency plan to be assessed?	See page 14
22	What is verification?	See page 15
27	What does “business unit” mean?	See page 16
28	What does “offset” mean?	See page 16
31	What does “additionality” mean?	See page 16

Energy and GHG Emissions Performance Targets

SUPPORTING GUIDELINES

Through interview and review of documentation, determine:

The processes in place for establishing, working towards, and achieving energy and GHG emissions improvement targets.

If the company has set business unit or company level targets in place of facility level targets, that adequate rationale for the scope and scale are established and communicated.

That the facility and/or business unit have set an energy and GHG emissions performance targets and whether it is meeting its target and that, in the case of company level targets, the scope and scale of the targets are justifiable and appropriate.

Where a company has multi-year targets, the facility and/or business unit have annual action plans in place that can be used to measure progress. Such progress may not necessarily be in the form of annual reductions, but may instead be in the form of actions for fuel switching or measurable progress towards the implementation of an emissions reduction or energy efficiency project.

That the facility and/or business unit have met the energy and GHG emissions performance targets for three of the past four years.

That the facility and/or business unit have systems in place for internal/external verification of energy and GHG emissions performance.

That the facility and/or business unit have set and met energy and GHG emissions performance targets for 3 of the past 4 years.

APPENDIX 1: FREQUENTLY ASKED QUESTIONS

PROTOCOL-SPECIFIC GUIDANCE

1. Can corporate documentation be used to demonstrate facility-level commitment?

Written senior management commitment at the corporate level (e.g. a corporate policy) can be accepted as evidence during a facility-level self-assessment or TSM verification if it is accompanied by evidence that the corporate commitment is being applied and adhered to at the facility level. There must be evidence of a link between the corporate documentation and facility-level practices. If this linkage is established, then the corporate documentation can be accepted as evidence of facility-level commitment.

2. What are standard quantification and estimation methodologies?

Standard quantification and estimation methodologies are conversion factors, process equations or process simulations that have been accepted by the federal/provincial/territorial harmonized reporting process for energy use and GHG emissions.

3. What is a major process activity?

This can be defined as a significant component of the production process that can be easily bounded and whose consumption of energy and GHG emissions can be accurately measured.

4. What is meant by “energy data is reviewed regularly and integrated into operator actions for energy-intensive processes”?

The key energy management principle applied in this indicator is that floor level operators are managing energy consumption as a consumable of (or input to) the production process. This means that, energy use for energy-intensive process must be metered and controlled by technologies and operators that operate the energy-intensive process. Therefore, information about energy use must be available to the operator on a frequency that enables the operator to optimize energy consumption. Examples include maintaining a temperature range and optimizing the speed of a variable speed pump.

5. What is meant by “actions and process controls related to energy use and GHG emissions are included in management systems for material sources”?

Operator actions related to energy use and GHG emissions must be included in the operator’s job procedures. In the situation where the GHG emissions are directly related to energy use, then energy-related job procedures act as a proxy for GHG control procedures. Examples include procedure to identify and repair compressed air leaks as part of the operation manual for air compressors and energy-saving steps as part of the start-up procedures of a large piece of equipment.

Where GHG emissions are a direct result of energy use (e.g. GHG emissions from the consumption of natural gas in a direct fired boiler or emissions from the consumption of diesel by a fleet of mobile mining equipment), then the control of energy use can be used as a proxy for the control of GHG emissions. With the application of the appropriate conversion factors or quantification protocols, controlled energy performance can be expressed as GHG emission performance. In these instances, information on GHG emissions does not need to be present on the operator’s control interface, but can be inferred from the energy use information.

6. Can a facility with distinctly different production processes have separate Energy/GHG Emissions Performance targets i.e. one for each production process?

Yes, particularly when a facility uses intensity-based targets. It has been pointed out that a single indicator may not be sufficient in the case of an open pit facility that is comprised of the pit and a concentrator, or where smelters are processing an increasing amount of recycled material. It may be necessary to have multiple targets representing a single facility where the dynamics of the production processes are so different that one common target is not an adequate representative consumption driver for each production process.

7. If a facility uses multiple targets, does the site have to meet all targets before it achieves a Level A rating?

Yes. The intent of the TSM Indicators is that they reflect the performance of the total facility. Therefore, all targets must be met in order to achieve a Level A rating.

8. In some instances, underground mines are developing new production zones at much greater depth and the energy intensity becomes greater because of the extra energy required for ventilation, pumping, cooling, hoisting and sustaining the infrastructure at depth. What methodology can be used to create a practical target in these cases?

A zero-based energy budget can be used to determine the new intensity level as well as the performance indicator and target. The zero-based energy budget is established by estimating baseline consumptions for each mining activity (e.g. ventilation, pumping, lighting, hoisting) at depth for a convenient period of time, and then determining the expected total monthly and annual consumptions relative to forecasted production levels. Typically, operations monitor total monthly consumption versus the estimated consumption budget. However, the total estimated monthly consumption can be divided by the forecasted production to determine monthly intensity targets. Actual performance can then be tracked throughout the year versus these target intensities.

9. What dictates whether energy use and/or GHG emissions are material to a facility or business unit?

Energy use and/or GHG emissions are to be considered material for a facility and/or business unit if: They exceed 25kt (GHG) system and target and or use more than 250,000GJ

They elect to define energy use and/or GHG emissions as material.

10. What is considered a material fuel source?

For the purpose of this protocol, companies must define the criteria to determine whether a fuel source is material in their management system. One such example of a material threshold for fuel sources is that anything above 10% of the total fuel consumption is to be considered material. This 10% threshold would apply to miscellaneous energy use at the mine site, which does not have a direct or indirect impact on its ability to create, preserve or erode economic, environmental and social value for itself and its stakeholders.

If an operation so chooses or fails to define materiality, all fuel sources will be assumed to be deemed material.

11. What is the threshold for significant sources of non-energy GHG emissions?

Facilities or business units must identify and estimate significant sources of non-GHG emissions over 100 tonnes.

12. What constitutes an energy use or GHG emissions performance target?

A facility or business unit may designate one or more of the following types of energy use or GHG emissions performance targets:

Volume target: volume targets define a specified amount of carbon dioxide equivalent (CO₂ equivalent) or energy consumption that will be consumed or emitted by the facility. Such targets are independent of the amount of product produced by the facility and/or business unit, and are calculated relative to current or historical data.

Intensity targets: intensity targets define a specific amount of CO₂ equivalent or energy consumption *per unit of production*, where production for a mine/mill is “head tonnes” and for smelters/refineries is “refined metal or metal in matte”. “Head tonnes” is the term used

for tonnes of ore delivered to a concentrator. It is the denominator that is commonly used to determine intensity. Head tonne volume is the most appropriate driver of energy consumption and GHG emission production in production processes and is independent of changing ore grades.

13. What should be considered during the process of selecting targets?

When selecting targets environmental, economic, and social issues should be taken into consideration. Below is a list of some of the things a facility or business unit may want to consider:

Financial criteria and priorities, Alternative energy sources, Maintenance and infrastructure needs, Operational requirements and constraints, Quality and appropriateness of energy resources, Environmental impacts, Safety and health issues, Available human and technical resources, Its energy management system including areas of significant use and drivers, and Life of mine

Targets should be:

Ambitious, so as to commit the organization to continual improvement; Realistic, so that they can be achieved within specific time limits; Specific and measurable.

14. Can offsets be used to meet performance targets?

Yes, performance targets can be met by a combination of on-site reductions and offsets (including performance credits). However, if offsets have been used to meet targets, the percentage and source of offsets used must be clearly documented and the use of offsets should not exceed any regulatory caps on the use that may be in place for a facility or business unit.

15. Do targets have to apply to the entire facility or business unit?

No. Some targets may apply to equipment (e.g. a specific piece of equipment), while others may address the energy consumption of departments, training or energy awareness or additional measuring and monitoring.

16. How can a facility or business unit express energy reduction targets?

Energy use and GHG emissions reduction targets can be expressed either as absolute energy savings attributable to a given initiative or through a performance improvement metric.

17. If a business unit target is achieved by realizing reductions at a single facility do all facilities in that business unit get credit for the reduction?

Yes, if an energy use and GHG emissions management system designates a business unit level target that calls for a defined emission reduction and the specified reduction target for the entire business unit is achieved by reducing emissions at one facility then all facilities listed in that business unit are to receive credit for achieving the target. The climate makes no distinction as to where a tonne of GHGs comes from and as such, this protocol encourages the most cost effective reduction, rather than reductions across all facilities. This principle is consistent with the principles underlying carbon-pricing policies such as cap-and-trade, in that the intent is to establish a price on carbon that should encourage companies to implement the lowest cost opportunities.

18. How is progress against a multi-year emissions target and energy efficiency plan to be assessed?

A multi-year target is an energy or GHG emissions target that specifies a certain performance over a defined number of years, for example a 20% reduction over a 3-year period. In such a case it is difficult to determine if a facility is meeting expectations toward the target if progress is not linear. The target may make sense for a facility or business unit in a case where they are implementing a multi-year capital plan or infrastructure upgrade that will result in emissions reductions and/or energy savings only when the final plan is complete. In such a case, an action plan outlining the specific steps that will be implemented each year until the plan is complete should be used to assess progress. Such actions may include, but are not limited to, new operating procedures to be implemented, new equipment to be purchased and installed, or new processes to be commissioned. Actions in the plan should be specific and measurable and should clearly contribute to achieving the reduction specified in the multi-year plan. For a facility or business unit to achieve a level A under indicator 3, it must be able to demonstrate that previously-declared annual milestones for the current year of a multi-year target have been achieved in the reporting year. Energy- efficiency plans must be made on a cycle of no more than 3 years.

19. Can investments in renewable energy that provide benefits of offsets for regulatory compliance fulfill the requirements of corporate investments under indicator 1 Level AA?

Yes.

20. Can a facility or business unit develop a single plan incorporating both energy and GHG emissions management?

Yes, the vast majority of GHG emissions produced as a result of mining are associated with burning fossil fuels and consuming energy. Based on this fact, many facilities will manage GHG emissions by managing their energy consumption first and as such, it is very appropriate for facilities or business units to develop a single plan to address both energy and GHG emissions. It is also appropriate for facilities or business uni

to establish a single reporting mechanism for both energy and GHG emissions as well as reduction targets focused only on energy reductions where those reductions lead directly to GHG emissions reductions. Regardless of whether a company creates a single plan or separate plan, non-combustion emissions should be included, where appropriate.

21. What are Scope 1, Scope 2 and Scope 3 emissions?

Scope 1 emissions: the total global direct emissions from sources owned or controlled by the reporting facility or business unity.

Stationary combustion; Mobile combustion; Process emissions; and Fugitive emissions.

Scope 2 emissions: indirect GHG emissions that the facility or business unit has caused through its consumption of energy in the form of electricity, heat, cooling or steam.

Scope 3 emissions: indirect emissions that arise as a consequence of a facility or business unit's activities from sources that are owned or controlled by others. (Carbon Disclosure Project)

VERIFICATION

22. What is verification?

Verification is the systematic, independent and documented process for the evaluation of an energy or GHG assertion (for example, related to management systems, reporting systems, or performance) against agreed verification criteria. (Adapted from ISO 14064: 2006.)

DEFINITION OF KEY TERMS

23. What does “formal” mean?

The term “formal” is used frequently in the assessment, and usually in conjunction with “system” or “process”. Formalized processes or activities are usually given status through clear and precise requirements, usually documented as a written procedure. This means that the business can clearly and easily demonstrate that the process or system is in place. It would also typically require documented processes or an ‘audit trail’.

24. What is a “system”?

A system, or “management system” represents processes that collectively provide a systematic framework for ensuring that tasks are performed correctly, consistently and effectively to achieve a specified outcome and to drive continual improvement in performance. A systems approach to management requires an assessment of what needs to be done, planning to achieve the objective, implementation of the plan and review of performance in meeting the set objective. A management system also considers necessary personnel, resources and documentation requirements. Other definitions associated with systems are:

Policy: The formal expression of management's commitment to a particular issue area that presents the stance of the company to interested external parties.

Practice: Informal, undocumented approaches to carrying out a task.

Procedure: A formalized, documented description of how a task is to be carried out.

25. What does “accountability” mean?

Accountability: The energy use and GHG emissions management system must identify the party who is ultimately answerable for energy use and GHG emissions management performance and the development and implementation of the energy use and GHG emissions management system at the facility. This accountability cannot be delegated. Resources are available to the accountable party to ensure proper systems (training, equipment, communications, etc.) are in place to effectively meet their energy use and GHG emissions management goals.

26. What does “responsibility” mean?

Responsibility: Within the energy use and GHG emissions management system, specific energy use and GHG emissions management related requirements and tasks are identified and assigned to specific positions within the facility. It is important that responsibilities are clearly communicated so that each position understands what is expected of them.

27. What does “business unit” mean?

Business Unit: The energy use and GHG emissions management system allows a company to set targets at both facility and business unit levels. For the purpose of this protocol, a business unit is defined as a logical element or segment of a company representing a specific business function or a definite place on the organizational chart, under the domain of a manager, or a functional geographic area. This may include but is not limited to a series of mines located in a defined physical area, a series of mines producing the specific product, or the combination of a mine and smelter. For the purpose of this protocol a business unit is defined by the company but requires a documented rationale for why two or more facilities has been grouped together in the business unit.

28. What does “offset” mean?

Offset: a unit of carbon dioxide-equivalent (CO₂e) that is reduced, avoided, or sequestered to compensate for emissions occurring elsewhere, in this case at a mine or smelter. Offsets work in a financial system where, instead of reducing its own carbon use, a company can comply with emissions caps by purchasing an offset from an independent organization that completed and certified an emissions reduction, avoidance or sequestration project. For the purpose of TSM an offset must be independently verified by an accredited body, fungible, and passed a credible additionality test.

29. What does “defined frequency” mean?

Defined frequency: As defined for each material fuel source in the energy and GHG management system.

30. What does “established criteria” mean?

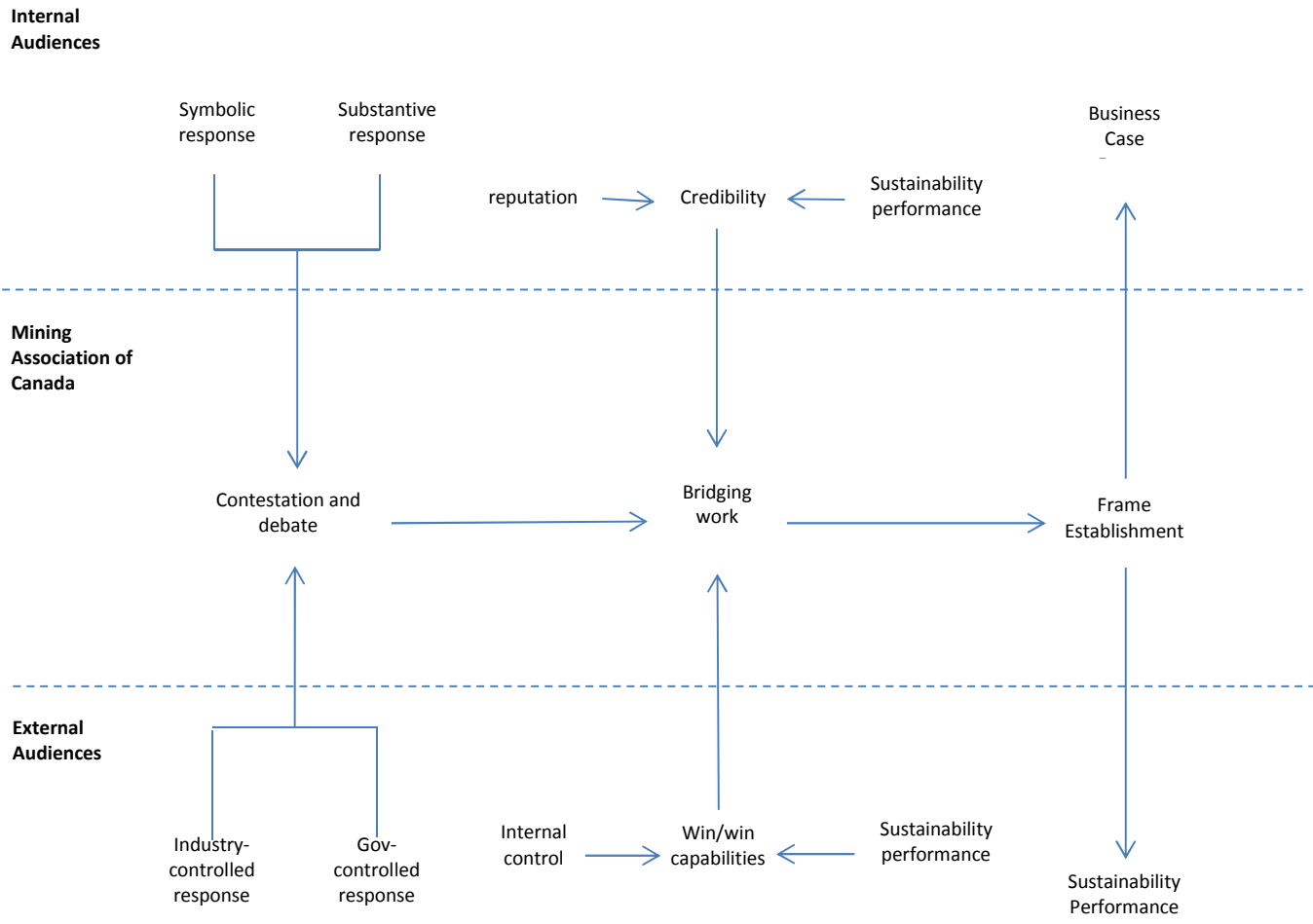
Established criteria: As defined in the energy and GHG management system.

31. What does “additionality” mean?

The Emission Offset Regulation defines additionality in terms of the baseline emissions against which a project's emission reductions are estimated:

"...the baseline scenario will result in a conservative estimate of the greenhouse gas reduction to be achieved by the project considering... existing or proposed regulatory requirements, provincial or federal incentives...including tax incentives or grants...the financial implications...of...action referred to in the baseline...any other factor...to justify the claim that the baseline scenario is likely to occur if the project is not carried out" (*Guide to Determining Project Additionality*, Pacific Carbon Trust)

Appendix D: Overview of findings during pre-TSM years, 1993 - 2003



Appendix E: Overview of findings during post-TSM years, 2004 - 2013

