

**Shifting the frame: How internal change agents contextualize and co-construct strategic responses to grand challenge issues within and beyond the firm**

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**Declaration**

*I, Kristy Faccer, hereby declare that the work on which this thesis is based is my original work in concept and execution except where acknowledgements indicate otherwise.*

Signed by candidate

October 1, 2019



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## ABSTRACT

In this study, I aim to understand business responses to social-ecological grand challenges. Prior research has suggested that problem identification and attribution help to foster meaning and action on societal issues. In particular, framing theory has offered significant insight into individual actors' cognitive processes, their skillful articulation of socially resonant interpretive frames, and the role of particular actor categories and repertoires in framing success. At meso and macro levels, researchers have tended to focus on social movements and the outcomes of highly charged political contests between these groups and state actors. As such, we know far less about the co-creative mechanisms and contextual 'raw materials' that underpin meaning-making activities and interaction between groups, especially in instances where the focus is on firms and the significance being attached to ambiguous societal issues for which they are not directly responsible. A key outstanding question is therefore: *how do firm-internal agents interpret, signify and mobilize organizational responses to grand challenges?*

In an effort to address these lacunae, this study explores the proactive efforts of three firms to interpret the complexity of social-ecological grand challenges that they share with the rest of society and to address these issues through meaningful and mitigating action. My inductively derived theoretical model of 'interactional framing for issue advancement' shows how the active engagement of external influences by internal change or 'signifying agents' facilitates action on grand challenges within and beyond the firm. While framing activities charge grand challenge issues with meaning and help to organize actors' understanding of, experience, and action around these issues, material affordances and interaction with external actors provide the enabling environment for resonant interpretations to take hold and to facilitate enactment. Grounded in my cases, the model also depicts the progressive sequencing of signifying agent efforts across three broad stages: Introduction and Disruption, Experimentation, and Enactment.

My analysis contributes to the management literature by suggesting that the signification work of firm-internal agents is a process of mediation, shaped by the distinct and emergent character of grand challenges and the interplay of social and material mechanisms. Because such issues require a greater emphasis on problem-solving and novel sources of information, my account contrasts with conventional representations of meaning-making as a relatively straightforward line of action from individual logics 'pulled down' from institutional systems and packaged attractively to appeal to 'outsiders' less involved in the processes of signification. It also provides an alternative to the

popular view of meaning construction as a ‘contest’ or essentially dispute-oriented process. Instead, I argue that grand challenge issue advancement demands a more intricate, interactional and contextual process of meaning-making by interested actors and issue proponents internal and external to the firm. The model of signification work I offer in this study thus more fully captures the perspective that actors do not simply assess and attach importance to complex issues, but construct the very nature of the issue itself, and that this construction is a precursor to collaborative action on grand challenges.

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## DEDICATION

To Naomi, in memory.

Tree at My Window

Tree at my window, window tree,  
My sash is lowered when night comes on;  
But let there never be curtain drawn  
Between you and me.

Vague dreamhead lifted out of the ground  
And thing next most diffuse to cloud  
Not all your light tongues talking aloud  
Could be profound

But tree, I have seen you taken and tossed  
And if you have seen me when I slept,  
You have seen me when I was taken and swept  
And all but lost.

That day she put our heads together,  
Fate had her imagination about her,  
Your head so much concerned with outer,  
Mine with inner, weather.

*Robert Frost*

# TABLE OF CONTENTS

Abstract .....	ii
Acknowledgements.....	iv
Dedication.....	v
Table of Contents .....	vii
List of Tables.....	ix
List of Figures .....	ix
Glossary of Key Terms .....	x
Chapter 1: Introduction.....	1
Chapter 2: Literature Review.....	9
1.0 Introduction .....	9
2.0 Signposts from the Scholarly Landscape.....	9
3.0 Social-Ecological Grand Challenges.....	13
3.1 Grand Challenge Issue Fields.....	14
3.2 Pathways to Grand Challenge Issue Construction .....	16
4.0 The Role of Individual and Organized Actors in Change Processes .....	18
4.1 Social Interaction and Organizing Around Societal Issues .....	20
4.2 Signification Work, Meaning-making and Framing Theory.....	22
5.0 The Role of Contextual Opportunities.....	27
6.0 Summary.....	30
Chapter 3: Methodology.....	32
1.0 Research Foundation and Approach.....	32
2.0 Research Strategy and Design .....	34
2.1 Research Context and Cases.....	37
2.2 Data Collection and Sources.....	38
3.0 Data Analysis.....	42
3.1 Considerations of Quality and Credibility .....	46
Chapter 4: Findings.....	48
1.0 Introduction .....	48
2.0 Main Case Study: SunSure Insurance.....	49
2.1 Sunsure’s Existing Frame .....	49
2.2 Stage 1: Introduction and Disruption.....	50
2.3 Stage 2: Experimentation.....	56
2.4 Stage 3: Enactment .....	64
2.5 Sunsure’s Expanded Frame .....	68

3.0 Supplementary Case Study 1: Woodstones Retail .....	68
3.1 Woodstones' Existing Frame .....	68
3.2 Stage 1: Introduction and Distruption .....	69
3.3 Stage 2: Experimentation.....	73
3.4 Stage 3: Enactment .....	78
3.5 Woodstones' Expanded Frame .....	80
4.0 Supplementary Case Study 2: Max & Co.....	81
4.1 Max & Co's Existing Frame .....	81
4.2 Stage 1: Introduction and Disruption .....	82
4.3 Stage 2: Experimentation.....	85
4.4 Stage 3: Enactment.....	89
4.5 Max & Co's Expanded Frame .....	92
5.0 Theoretical model .....	93
5.1 Interactional Framing Stages and Sub-processes.....	96
Chapter 5: Discussion.....	110
1.0 Introduction .....	110
2.0 Contributions to Theory.....	110
2.1 Overview.....	110
2.2 Ecologically Material and Place-based Issues.....	112
2.3 Social Interaction as a Basis for Meaning Work .....	117
2.4 Contextual Opportunities and the Role of Signifying Agents.....	121
3.0 Study Limitations .....	125
4.0 Suggested Avenues for Research.....	126
Chapter 6: Conclusion.....	129
REFERENCES.....	131
APPENDIX A.....	145

## LIST OF TABLES

Table 1. Summary and Description of Data Collected.....	41
Table 2. Stage 1 (Introduction & Disruption): Summary of theoretical model features and tools facilitating framing for each case.....	100
Table 3. Stage 2 (Experimentation): Summary of theoretical model features and tools facilitating framing for each case.....	105
Table 4. Stage 3 (Enactment): Summary of theoretical model features and tools facilitating framing for each case.....	109

## LIST OF FIGURES

Figure 1. Comparing process against variance studies (Langley, 1999, p.693).....	36
Figure 2. Illustration of overarching analytical process.....	42
Figure 3. Data structure and code progression.....	44
Figure 4. Theoretical Model of Interactional Framing for Issue Advancement.....	94
Figure 5. Zooming in on Agents' Interactional Framing for Issue Advancement.....	94

## GLOSSARY OF KEY TERMS

**Actor** – refers to both individuals and organizations unless otherwise stated

**Affordances** –actionable characteristics or possibilities that become available to actors in the context of interpretation and interaction (Boxenbaum, Jones, Meyer, and Svejenova, 2018). In organizational research, the notion of affordances is typically applied to studies which conceptualize and examine the connection between the material and social realm

**Allies** – those with overlapping interests to signifying agents; can be internal or external (O’Mahony and Bechky, 2008)

**Efforts** - directed and purposeful attempts of actors that are subject to influence and thus not necessarily definitive (Lawrence, Suddaby, and Leca, 2011)

**Field** – a meso-level social order where individual or collective actors interact with knowledge of one another under a common set of understandings; fundamental units of collective action in society (Fligstein and McAdam, 2011)

**Frames** – socially constructed interpretation schemes that provide a basis for meaning-making, communication and action (Benford and Snow, 2000)

**Framing** – the dynamic enactment and shaping of meaning in ongoing interactions (Dewulf, Gray, Putnam, Lewicki, Aarts, Bouwen, and van Woerkum, 2009)

**Diagnostic Framing** – the definition of a problem and its causes with the expectation of directing action

**Prognostic framing** – the articulation of a proposed solution to the problem; involves attention to consensus building

**Grand Challenges** – highly significant yet potentially solveable problems that affect vast numbers of individuals in often profound ways (Eisenhardt et al. 2016)

**Issue field:** a field that forms around a common issue rather than a product or market. These are identifiable by the (often diverse) actors that interact and take one another into account on particular issues (Wittneben, Okereke, Banerjee, and Levy, 2012; Zietsma, Groenewegen, Logue, and Hinings, 2016)

**Signifying agents** – individual organizational members who have an interest in and are actively seeking to shape meaning and influence renewed framings within the organization. These individuals do not occupy positions of executive leadership and work with others in their pursuit of change (internal or external allies)

**Signification work** – framing to focus attention on an issue, convey one set of meanings over another, and reconstitute the way in which some objects of attention or actors are seen as linked (Reinecke and Ansari, 2016; Snow, 2013)

**Social-ecological system** - a system in which people depend on resources provided by ecosystems, and ecosystem dynamics are influenced, to varying degrees, by human activities and vice versa (Whiteman, Walker, and Perego, 2013)

## CHAPTER 1: INTRODUCTION

In early 1992, members of the Academy of Management received a request from the United Nations' International Facilitating Committee for an upcoming "field configuring event" (see Hardy and Maguire, 2010) known as the Earth Summit. Those involved later described the invitation for input as "surprising, formidable, disconcerting – and totally compelling" in part because it "signaled the lack of input from organizational scholars into policy-relevant conversations regarding the human dimensions of global environmental change" (Cooperrider and Dutton, 1999, p. 1). In their subsequent call for organizational scholarship on the topic, scholars not only advocated for a greater role for organization sciences in broad societal concerns, but emphasized its relevance to knowledge, policy and response development on these issues, arguing that "there is no one single item on the global agenda for change that can be understood outside of the role and functioning of organizations" (Bilimoria et al., 1995, p. 75).

According to a review of the resulting book, the request inspired a worldwide effort at exploring the potential contributions of organization and management theory to understanding pressing societal challenges, including changes to the global climate system, constraints to ecological sustainability and the spread of human disease (Javidan, 2001). The issues in question were described as "multilayered... metaissues that are non-linear in nature... with widespread, frequently unintended system effects that cannot be easily isolated to specific causes" (Bilimoria et al., 1995, p. 72/73). A number of leading scholars contributed chapters, including ones on sensemaking as an organizational dimension of global change (Weick, 1999), the biodiversity crisis (Westley, 1999), organizing in the absence of authority (Gray, 1999), and corporations as agents of global sustainability (Hart, 1999). Around the same time, the *Academy of Management Review* also published a Special Issue on "Ecologically Sustainable Organizations" including some of the same authors (e.g. Hart, 1995), which offered some of the most radical and highest cited works on firm-environment interrelations in the discipline. The extent to which these citations influenced the field however, has remained in question (Linnenluecke and Griffiths, 2013).

More than 25 years later, we are seeing renewed calls within the Academy for “new ways of seeing” (Shaw, Bansal, and Gruber, 2017, p. 397) and understanding these intractable and complex social issues, and ultimately “tackling grand challenges pragmatically” (Ferraro, Etzion, and Gehman, 2015, p. 363; see also Eisenhardt et al., 2016; George et al., 2016). Many have also commented on what is required - studies that have “a dual focus on the firm (or industry) and on the Earth system” (Whiteman et al., 2013, p. 329); that “highlight the importance of inclusiveness and engagement [and] de-emphasize the role of heroic actors” (Ferraro et al., 2015, p. 380) and are “problem-based” (Linnenluecke and Griffiths, 2013, p. 390). Taking up these challenges, it is argued, would offer one way of returning to “to the Organizations and Environment tone of 20 years ago” (Hoffman and Jennings, 2015a, p. 20) where organizations and organizational scholars do not assume that “they are the nexus of agency... [but are] involved in and engage with larger systems and issues” (Ferraro et al., 2015, p. 380).

This scholarly conversation on grand challenges resonates with my own observations coming into this PhD from professional practice. My dissertation was initially motivated by my questions about how firms are taking action on complex social-ecological issues, and what this involves. In my work, I’d also been exposed to companies that were attempting to grapple with such challenges and wanted to explore some of these cases further (e.g. Winn and Pogutz, 2013; Stephan, Patterson, Kelly, and Mair, 2016). This led me to explore the literature more deeply with the aim of uncovering insights that might help both scholars and practitioners to better understand and learn from such efforts.

In my subsequent review of the literature I discovered notable gaps, not only on grand challenges as a relatively new area of attention for management researchers (see for instance, Grodal and O’Mahony, 2017; Reinecke and Ansari, 2016; Eisenhardt, Graebner and Sonenshein, 2016), but also around the way in actors interpreted and attached significance to such issues and the mechanisms involved in doing so. I also found that few examples existed of positive and proactive changes within organizations to address systemic problems. Calls for “more studies that analyse how the micro role of firms and industries interacts with a ‘macro-view’ of the world” and how this occurs in practice resonated with

my research objective and topic choice (Whiteman et al., 2013, p. 309). According to Schatzki (2002) and others (e.g. Jarzabkowski, Bednarek and Spee, 2015), this demands the application of a process worldview, in order to understand and explain the unfolding nature of the issue itself alongside the relationality of actors and practices responding to it. Hence, while originating in an observed real-world phenomenon, my study also offers theoretical insights targeting a number of underexamined areas in the organization and management field. In addition to research on framing, social movements and materiality, my contribution is also relevant to the growing literature on ‘strategy as practice’ (Balogun, Jacobs, Jarzabkowski, Mantere, and Vaara, 2014; Jarzabkowski, Kaplan, Seidl, and Whittington, 2016; Jarzabkowski and Spee, 2009; Seidl and Whittington, 2014) and the role of managers (Rouleau and Balogun, 2011; Wickert and de Bakker, 2018; Rouleau, 2005; Gond and Moser, 2019; Risi and Wickert, 2017) in driving change.

My theoretical aim with this study was to understand how responses to social-ecological grand challenges were being mobilized within and by firms. To address this aim, I engaged in grounded, processual study of three firms with public commitments around social-ecological grand challenges. In undertaking this work, I became familiar with the agents within these firms responsible for these efforts and their experiences orchestrating change from the inside. These middle managers had ambitions of significant internal change and mobilization around issues beyond their mandated role and typical purview of the organization – which is why I refer to this group as ‘firm-internal agents’. My guiding research question for this dissertation thus became: *how do firm-internal agents interpret, signify and mobilize organizational responses to grand challenges?*

This question and my response to it, are influenced by framing theory. Framing theory has offered significant insight into how meaning is attached to particular issues and how these issues become integrated into the systems of meaning guiding organizational attention and action (Benford and Snow, 2000). I chose framing theory because of its promise and - albeit underutilised - dual strengths in capturing the structural aspects of meaning systems as well as explicating the social framing dynamics involved in idea or change mobilization (Cornelissen and Werner, 2014). In particular, I draw on and extend theory in the ‘interactional framing’ tradition to emphasize the relational and constructionist

elements of meaning-making with respect to social-ecological grand challenges (Gray, Purdy, and Ansari, 2015). In the interactional tradition, framing is understood as a dynamic process of meaning-shaping and enactment which emerges through ongoing interaction between actors. This is distinguished from more conventional and cognitive approaches to framing in which meaning is considered to primarily occur “between the ears’ of each individual” rather than “between the noses’ of people (who are) co-constructing the meaning of their worlds” including as they relate to the issues they are concerned about (Dewulf et al., 2009, p. 162). Hence, I use the terminology of “signification work” (Benford and Snow, 2000) to locate my research in the interactional tradition, while distinguishing from standard individual cognitive approaches. I also use this terminology to emphasize the focus of social interaction in my study on understanding and attaching significance to grand challenge issues.

In contrast to much of the literature on framing, my study emphasizes the processes involved in the active experimentation and construction of meaning rather than a portrayal of actors as passive carriers or ‘spin-doctors’ of extant, pre-configured ideas and beliefs (Snow, 2007). I therefore employ processual methods in the qualitative tradition, given their unique potential to uncover the complexities and interdependencies inherent in organizational responses to grand challenges (Jarzabkowski, Bednarek, Chalkias and Cacciatori, 2019) as well as the relational, material and contextual dynamics operating at multiple levels in these settings (Garud and Gehman, 2012; Emirbayer, 1997; Jarzabkowski et al. 2019; Ferraro et al. 2015). In addition to close attention to individual and interactional dynamics, doing so also requires the ability to ‘zoom out’ and reflect these dynamics relative to the broader macro environment in which they are occurring (Seidl and Whittington, 2014).

In my study, I conceptualise the firm-internal actors involved in issue advancement as ‘signifying agents’ (Snow and Benford, 1998) to underline their involvement in the active production, signifying and advancement of meaning within the firm (Sonenshein, 2016). While I only apply the label ‘signifying agents’ to firm-internal actors interested in and responsible for grand challenge issues, these actors are joined in their efforts by a number of external individual and organizational actors (external allies) and other employees

(internal allies). While the agents identified here are not a new category of manager from that identified in the literature (Kellogg, 2009; Rouleau and Balogun, 2011) or internal change agent from that initially highlighted by Meyerson and Scully's (1995) article on 'Tempered Radicals', the issue-driven tactics of middle managers in responding to grand challenges has yet to receive ample dedicated attention in the literature (Sonenshein, 2016). Hence, while the location of these individuals within the firm (or *where*) and potentially also their motivation (*why*) may be similar to those I focus on here, I note that the agents may also be motivated by multiple or even conflicting organizational or ideological discourses (Wright, Nyberg and Grant, 2012) which is an identity question that is beyond the scope of this study to effectively address. For this reason, my use of the label signifying agents is designed to reinforce this study's focus on *how* change is pursued and achieved from inside organizations (Winn and Kirchgeorg, 2005; Kellogg, 2011) and my work's positioning within foundational literature on interactional framing (Benford and Snow 2000; Cornelissen and Werner, 2014).

In my study I find that signifying agents' efforts to advance grand challenge issues within the firm is supported by key environmental and social mechanisms. These include ecologically material affordances, interaction with allies and the identification, construction and mediation of contextual opportunities for further issue advancement. Ecologically material affordances allow agents and allies to understand the character of grand challenges within a local system, or place, and to incorporate this information into the framing process. Interaction with internal and external allies provides the basis for collaborative meaning-making including through the construction of new opportunities for further issue advancement (e.g. projects or working groups). Drawing on these broader contingencies and helping to construct further enabling conditions for the advancement of the issue of interest is the job of firm-internal agents, who act more as orchestrators than singular drivers of this process. These relationships are explored further in my inductively derived process model of "interactional framing for grand challenge issue advancement" which illustrates how strategic frames guiding firm action are reconfigured over three stages: Introduction and Disruption; Experimentation, and; Enactment. My process model offers detailed insight into the factors and processes involved in transitioning from the original firm frame through the three stages of issue

advancement to an expanded frame integrative of grand challenge issues. It also presents seven framing sub-processes involved in progressively advancing the readiness for frame revision within the firm.

I argue that the key difference between grand challenges and conventional management challenges lies in the fact that they are not governed by existing and well-entrenched systems of meaning or established institutional structures (Ferraro et al. 2015). As a result, the type of signification work that these individuals are involved in is distinct – involving an intricate interplay of material and social mechanisms to augment individual limitations of influence and agency, as well as the progressive advancement of significance attached to a particular issue within and beyond the firm.

In my study, I explain how, despite the existence of strategic or market-based frames that “bind organizations to a set of capabilities and actions” and “blinds them to alternatives,” internal agents within firms with commitments around grand challenges find ways to reflect, challenge and reconfigure meaning systems in ways that allow these firms, over time, to “adapt to their environment” while facilitating action on grand challenges (Cornelissen and Werner, 2014, p. 197). In contrast to prevailing approaches in this literature which focus on top-down messaging of pre-existing meanings, my research emphasizes the emergent, unstructured nature of grand challenge issues, as well as how attention to these unique characteristics influences how they are framed (George et al. 2015). I also build on social movement theory to highlight the undertheorized role of context (Kriesi, 2006) and how interaction with ‘unexpected allies’ (O’Mahony and Bechky, 2008) helps agents and their collaborators collectively negotiate and shape meaning systems. This involves meaning-making towards the development of a shared definition of the issue. It also involves problem-solving around the determination of appropriate response actions to a complex issue that they share with each other and society more broadly.

My dissertation contributes to three areas of literature. Firstly, by highlighting the role of ecological materiality and place in framing, my account of frame reconfiguration offers a more situated and distributed view of agency than that otherwise outlined in the

literature. In particular, I show how features of the physical world (such as wave action or fire) can influence interpretations of meaning and significance. In so doing, my research speaks directly to criticisms of the framing literature as missing material ingredients in individual and organizational sensemaking (Gray et al., 2015; Stigliani and Ravasi, 2012; Whiteman and Cooper, 2011).

Second, my dissertation distinguishes itself from conventional approaches to framing focusing on message transmission and conflict by illustrating how actors within and outside of firms can work together to discover, construct and advance meaning around grand challenges that support organizing in firms and the fields that form around issues. In the perspective I offer here, the purpose of interaction is to develop a “shared understanding of how to jointly address the problem” (Ansari, Wijen, and Gray, 2014, p. 1035) rather than ‘waging war’ for the purpose of maintaining or disrupting well-established practices, positions or ‘rules of the game’ that do not exist in emerging issue fields like those around grand challenges (Fligstein and McAdam, 2011; Zietsma, Groenewegen, Logue, and Hinings, 2017).

Finally, in capturing and detailing the “messy process” (Kingdon, 2011) involved in interactional framing for grand challenge issue advancement, I highlight a less direct path to framing than typically understood in the literature. In particular, my research contributes to calls for studies that underline framing theory’s underexplored potential to illustrate how frames and the process of framing requires attention to multiple directions and influences of meaning. This requires attention to how meaning is both “partly contingent on the framing of others and the broader opportunities” afforded by the environmental context surrounding organizations (Werner and Cornelissen, 2014b, p. 1453). In particular, I show how the job of signifying agents is to mediate between the material aspects of grand challenges (“issues”), social mechanisms (“interactions”) and contextual opportunities in the broader organizational environment. The latter include large scale discursive or political opportunities such as public sentiment or media attention as well as opportunities constructed by agents and allies for the purpose of facilitating issue advancement (e.g. new partnerships).

My dissertation is organized as follows. In Chapter 2, I orient my work within extant theory with a focus on the management and social movement literature. Here I highlight the dominance of structural approaches, examinations of singular expressions of agency and constraints to working outside of existing systems of meaning, as well as documented calls for alternatives in research. In Chapter 3, I outline the methods I employed in responding to my research question, including an introduction to relational perspectives, my research strategy, context, cases, data sources and approaches used for analysis and rigor. Next, Chapter 4 presents the findings of my dissertation, beginning with an overview of my theoretical model, followed by a full exposition of my anchor case and then supplementary cases, in each section detailing the transition from the original firm frame through the three stages of issue advancement to an expanded frame integrative of grand challenge issues. Then, in Chapter 5, I detail how my findings contribute to the literature and conversations on framing, materiality, interaction and the role of context. Finally, Chapter 6 offers a brief conclusion.

## CHAPTER 2: LITERATURE REVIEW

### 1.0 INTRODUCTION

My research interest is located at the intersection of grand challenges and the efforts of internal organizational actors to influence action to mitigate these challenges through meaning-making. This chapter outlines literature of relevance to the problem including relevant signposts from the broader theoretical landscape and the three key literatures against which my study is anchored. First in Section 2.0, I review key insights from, as well as the limitations of research on sensemaking, issue-selling and middle managers as they relate to this study. Then in Sections 3.0-5.0, I turn my focus to detailing and facilitating new connections between the three areas of theory in which I anchor my study. In Section 3.0 I provide an overview of research on grand challenges, issue fields and pathways to understanding grand challenge issues. In Section 4.0, I explore the literature on organizing for change from both social movement and management theory with a focus on the role of interaction and interpretation through framing. In Section 5.0, I outline the literature on the broader conditions enabling change, including in particular the role of contextual opportunities, or “opportunity structures”. I then end in Section 6.0 with a synthesis and summary of the foundational literatures applied in my dissertation.

### 2.0 SIGNPOSTS FROM THE SCHOLARLY LANDSCAPE

In this section I briefly summarize parallel areas of scholarship relative to the theoretical domains in which I locate this study. In particular, I highlight connections in sensemaking, issue-selling and the role of middle and corporate social responsibility managers to themes of interpretation and change agency in organizational scholarship.

In its decades of development and use by organizational theorists, the concept of sensemaking has been particularly influential on the field. In particular, Karl Weick's sensemaking model detailing the processes by which actors notice or 'bracket' different cues in the organizational environment and generate meaning and the language to convey these ideas has provided a strong foundation for further development by researchers. Triggered by perceived or anticipated gaps in the sensemaking process, Weick and others argued that the recognition and incorporation of cues is dependent on the mental models and schema employed by actors, which in turn facilitate the breadth, depth and nature of information being collected (Weick et al. 2005; Thornton et al. 2012; Hahn, Pinkse, and Figge, 2014). Sensemaking, coupled with 'sensegiving' (Gioia and Chittipeddi, 1991) or the ability to identify the appropriate language and actively influence the construction of meaning by others are seen as central features of organizational action and change.

In their review article, Maitlis and Christianson (2014) defined sensemaking as "the process through which people work to understand events or issues that are novel, ambiguous or confusing" (p.57). They also point to blindspots in sensemaking scholarship, such as the "the social, cultural, economic and political forces that shape what groups will notice, how they can act, with whom they interact and the kinds of environments that can be collectively enacted" (Maitlis and Christianson, 2014, p. 98/99). In another article, one of the same authors also argues that the tendency in sensemaking research to "focus on crisis oversimplifies too few factors and disadvantages changes which occur over longer periods" (Maitlis and Sonenshein, 2010, p. 552; see also Weick, 2010).

Building on the theory of sensemaking, scholars have worked to address some of these shortcomings. For instance, Weber and Glynn (2006) link sensemaking theory to institutional theory by outlining how institutions can prime, trigger and edit

sensemaking processes, creating an important conceptual bridge between scholarship on micro-level processes and macro-level structural contexts. Similarly, in their article on ecological sensemaking, Whiteman and Cooper (2011) widen the lens in their reinterpretation of Weick's classic article on the failure of sensemaking at Mann Gulch, providing new and material insights into the event and actions of the actors involved. Indeed and as I will discuss below, this thesis was partly inspired by Whiteman and Cooper's argument (2000, 2011) that the incorporation of physical elements and ecological processes may prove particularly critical when applied to questions of changes in the natural world around us. However the emphasis in this case remains on crises and the lessons for managers in situations of individual survival. Also, Whiteman and Cooper's call for greater attention to elements in the natural world in management scholarship remains largely unheeded.

Looking at less urgent and more mundane situations, scholarship on the role of middle managers and less-powerful internal actors has also offered important insights into the process and practices involved in facilitating change from within. Julia Balogun and Linda Rouleau's research on middle managers (see Balogun and Johnson, 2004; Rouleau, 2005; Rouleau and Balogun, 2011) for instance richly illustrates the situated, interactive and social processes and practices involved in middle managers' efforts to negotiate change in the absence of strong leadership. While Balogun and Rouleau have mostly focused on conventional organizational issues, other scholars have focused on organizational change relating to social issues. For instance, a number of studies have highlighted the unique role and positive support offered by Corporate Social Responsibility (CSR) managers in interpreting and advancing change processes (see e.g. Gond, Akremi, Swaen, Babu, 2017; Visser and Crane, 2010). Research has also explored the uniqueness of CSR managers (e.g. Risi and Wickert, 2017) in balancing multiple and at times, contradictory logics and objectives, including how the maintenance of these can play an important role in sustaining organizational social initiatives (Sharma and Good, 2013).

Middle managers are also spotlighted in research on issue-selling, historically defined as the process of using insider language and tactical means to drive attention and prescribe understandings of issues relating to organizational performance (Howard-Grenville, 2007; Dutton, Ashford, O'Neill and Lawrence, 2001). Paralleling early work on sensemaking and framing (more on this below), issue-selling research initially “focused less on recruiting a broad-based coalition to take on vested interests, (and more) on direct and less organized engagement with higher-level decision-makers” (Weber and Waeger 2017, p. 902). In addition, the ‘issues’ in focus in issue-selling literature were typically those directly tied to economic performance rather than issues outside of and managers seeking to shift dominant organizational framing (Sonenshein, 2007; Alt and Craig, 2016). More recently however, there has been a resurgence of interest in issue-selling and its potential to explore change processes that foster generative dialogues on societal issues rather than as a means of pitting social interests against organizational interests (Sonenshein, 2012). A particularly promising example of new theoretical applications of this concept can be seen in Wickert and de Bakker (2018)’s study on social issue-selling. In this study, the authors theorize how a differentiation between traditional economic issues and social issues and how the moral and normative motivations that often drive support for the latter in research could uncover specific relational capabilities and dynamics suited to these cases (Wickert and de Bakker, 2018).

While the insights from these parallel literatures provide important insights of relevance to this study - for instance around cognition, identity and capabilities - I found that their limited attention to interactive processes, as well as social issues and contextual features made them an ill-fit with this study. By comparison my assessment of framing theory (more on this below) suggested a stronger sociological foundation in the social processes, social problems and extra-organizational contexts that I saw

reflected in my research. Before explaining this choice further below, I first turn to my treatment of the ecological and natural issues around which my study is centered.

### 3.0 SOCIAL-ECOLOGICAL GRAND CHALLENGES

Grand challenges are described as highly significant, complex and intractable societal challenges such as climate change, or inequality (Eisenhardt et al., 2016). While acknowledgement of such challenges is nothing new – as highlighted in the introduction - scholars have argued grand challenges are becoming more and more difficult to ignore given their scale and apparent impact in increasingly dense global networks of people, organizations and information (van der Vegt, Essens, Wahlstrom, and George, 2015). They have also been referred to in the literature under the alternate labels of, among others, meta-problems, wicked problems and messes (Eisenhardt et al., 2016; George, Howard-Grenville, Joshi, and Tihanyi, 2016; Hoffman and Jennings, 2015; Trist, 1983; Westley and Vredenburg, 1997). Unlike discrete problems, grand challenges are associated with complex and dynamic changes in societal and environmental conditions beyond the responsibility, power to control, and resolution capacity of any single organization or institution (Reinecke and Ansari, 2016; Scherer and Palazzo, 2011; Westley and Vredenburg, 1997).

Recent calls have suggested that responses to grand challenges are needed from all sectors of society, including corporate actors (Eisenhardt et al., 2016; Ferraro et al., 2015; George et al., 2016a). For these actors, it is argued, attention to grand challenges demands a shift in the locus of meaning away from a traditional focus on and inside the firm to issues and dynamics outside the boundaries of the firm (Hoffman and Jennings, 2015; Winn and Kirchgeorg, 2005; Stephan, Patterson, Kelly, and Mair, 2016). This confronts organizations and organizational members with the prospect of reconfiguring norms and beliefs about the role of the firm and employ a ‘macro view’ of the world around them (Stephan, Patterson, Kelly, and Mair, 2016; Whiteman et al.,

2013). Practically, the complexity, uncertainty and equivocality of grand challenges (Ferraro et al., 2015) means that “firms and their members lack effective ways to measure them” (Sonenshein, 2016, p. 352). Put differently, the character of grand challenges complicates their evaluation and solution determination – also known as issue diagnosis and prognosis - particularly with regards to tracing causality and responsibility (Reinecke and Ansari, 2016) and determining appropriate “responses” (Ferraro et al. 2015). Rather, Trist (1983) argues that “a lasting societal advance will entail the identification of a set of nonbureaucratic principles at the domain [social problem and field] level,” (p. 269). The adoption of ‘socio-ecological principles,’ he asserts, corrects the traditional reductionism and self-sufficiency associated with bureaucratic organizational logics by predicating understanding and action on a foundation of systemic interdependence:

*There is no overall boss in a socio-ecological system, though there is order which evolves from the mutual adjustment of the parts who are the stakeholders. Any overriding purpose which emerges from their sense of being in the same boat would depend on their arriving at a shared understanding of the issues. (Trist, 1983, p. 271, emphasis added).*

### 3.1 GRAND CHALLENGE ISSUE FIELDS

In this study, my focus is on social-ecological grand challenges and more specifically, the issues of water scarcity, ecological degradation in production landscapes and, climate-related extreme weather events (George, Schillebeeckx, Simon, and Liak, 2015; Winn and S. Pogutz, 2013; Whiteman et al., 2013). I conceptualise these grand challenges as social problems, or *issues* (Sonenshein, 2016) and “the set of actors that interact and take each other into account” on these particular issues as the *issue field* (Hoffman, 1999; Meyer and Hollerer, 2010; Zietsma et al., 2017).

Issue fields and the events and sets of actors associated with them offer participants the chance to “recognize a shared interest and cultivate the shared understandings

essential to a field formation and perpetuation” (Wooten and Hoffman, 2017, p. 8). According to Zietsma and colleagues (2017), the purpose of issue fields is thus to provide a platform for the negotiation over meanings and practices, and coordination of responses to emerging issues and opportunities. They draw members with diverse interests and interpretations of the challenge and combine elements from their broad membership (Furnari, 2016) and “coalesce around an ambitious field goal” to make progress on their focal issue (Grodal and O’Mahony, 2017, p. 1801). This is likely to involve the efforts of interested and embedded social actors in translating and transforming existing interpretations, rules and resources into new frames and forms of organizing (Fligstein and McAdam, 2011).

Hence, the state of the issue and issue field is an important factor in actor mobilization and influence (e.g. Fiss and Hirsch, 2005; Lounsbury, Ventresca, and Hirsch, 2003). Field conditions, such as the stability or degree of institutionalisation on the one hand, or novelty of an emerging issue on the other, have a significant influence on the availability and potential resonance of alternative framings to participating actors (Zietsma et al., 2017). Emerging issue fields can thus be described as having greater relational and institutional complexity than more settled fields, not only because of the diversity of voices and interests in play, but also the informality and fluidity of field membership as well as porosity of field boundaries (Delbridge and Edwards, 2013; Schneider, Wickert and Marti, 2017). Yet we know little about these fields, and in particular, how actors – individual or otherwise – interprets the larger context for his or her actions (Gray et al. 2015, p. 188) so as to actively navigate the multi-dimensional and aspects of and sources of meaning around large-scale societal challenges (Battilana, Leca, and Boxenbaum, 2009; Litrico and David, 2017; Westley et al., 2013).

### 3.2 PATHWAYS TO GRAND CHALLENGE ISSUE CONSTRUCTION

The question of individual and organizational responses to grand challenges touches on a recurrent theme in recent management research concerning the apparent mismatch between the nature and scale of societal challenges, and the theoretical tools we have to investigate these (Etzion, Gehman, Ferraro, and Avidan, 2017; Gray et al., 2015; Wittneben, Okereke, Banerjee, and Levy, 2012). While offering critical insight to our understanding of key factors and actions underpinning macro and institutional change, current approaches have tended to respond more effectively to questions of “what” and “when”, rather than “why” and “how”, change occurs, thus limiting our ability to draw concrete lessons for organizational theory and practice in this domain (Lawrence, Suddaby, and Leca, 2011). According to Westley and colleagues (2013), scholars should be focusing more attention on actors’ sensitivity to both relationships and context internally and externally – elements that are key to change work that operates in concert with, rather than independent of broader dynamics. Literature which links the agency of actors to the broader system or “problem-domain” that they inhabit – a competency sometimes known as “managing for emergence” – these authors argue, is where the literature is weakest (Westley et al., 2013; see also Dorado, 2005; Lichtenstein et al., 2006; Trist, 1983).

Mapping these linkages requires investigation in two directions. Firstly, scholars have argued that the “development of a meaning-making perspective about social issues necessitates an *inward focus* on how social issues become ‘issues’ for a firm’s top-managers in the first place and how various types of meanings within and outside the firm are used to shape this process” (Sonenshein, 2016, p. 361). Hence, a focus on sources of meaning, and the crafting and constitution of meaning, including through interaction is required. As I will detail further below, this involves developing a more detailed understanding of the ‘bottom-up’ processes of how actors construct issue significance as a basis for change and the social interactions underlying these

processes (Gray, Purdy, and Ansari, 2015; Litrico and David, 2016; Reinecke and Ansari, 2016)

Secondly, and particularly in the case of grand challenges, the consideration action on grand challenges by firms and through their members also requires investigation into how these actors relate to society (Stephan, Patterson, Kelly, and Mair, 2016). Indeed, some scholars have highlighted how a shifting locus of attention from inside to outside the organization allows for increased influence by less powerful internal change agents (Ansari et al. 2013; Nigam and Ocasio, Marti and Mair, 2009). In my study on social-ecological grand challenges, I take direction from research which has drawn our attention to how the natural world beyond organizational boundaries can impact firms from the “outside-in” through major systemic discontinuities or change such as climate change (Winn and Kirchgeorg, 2005).

Hence the other direction that scholars must look to is the external and contextual influences on actors that can “advance an interpretation of a set of cues bundled into an “issue” (Sonenshein, 2016, p. 351). This demands that researchers focus more on how actors employ the kind of ‘big picture’ thinking that not only accounts for diverse types of knowledge and contextual factors involved in understanding and attaching importance to particular issues, but also how the physical environment and a sense of place can be incorporated into streams of action (Lawrence and Dover, 2015; Whiteman and Cooper, 2011; Whiteman et al., 2013).

Since “management scholars have paid only scant attention to physical and natural resources and their idiosyncratic characteristics” (George et al., 2015, p. 1598) we know very little about “the way in which ecosystem dynamics affect and are affected by organizational mechanisms” (Boons, 2013, p. 286). Further, we have almost no empirical evidence around the “form of representations made by social actors in the systems studied” and especially research which explores these as an “antecedent to social action” (Boons, 2013, p. 285).

In my study, I seek to address this criticism and gap by focusing on the social ecological grand challenges around which my dissertation and firm action is focused and in particular, both the social processes of issue construction and the contextual and material influences which lend meaning to this effort. Based on my literature review, I found framing theory (see Section 4.2) to be best suited to uncovering insights into both of these directions.

#### 4.0 THE ROLE OF INDIVIDUAL AND ORGANIZED ACTORS IN CHANGE PROCESSES

Shifting from issues to actors, a growing parallel between the management and social movement literatures lies in their exploration of actor-driven organizational and field level change (e.g. Battilana, Leca, and Boxenbaum 2009; Fligstein 2013; Lawrence, Leca, and Zilber 2013). Among organizational and institutional scholars in particular, studies conducted from this perspective are increasingly being driven by an interest in more agentic accounts of meso- (organizational) and macro- (institutional or field) level change than offered by the more conventional focus on structure, stability and persistence historically associated with institutional theory (de Bakker, den Hond, King, and Weber, 2013; Schneiberg and Lounsbury, 2017; Weber et al., 2013). Instead, contemporary institutional theory scholars challenge the dominance of top-down readings of isomorphic action and tend to advocate for greater attention to the influences, sources of meaning and dynamic relationships within which interested organizational actors are situated. One approach to addressing these limitations is to link social movement and management research towards research which is “more deeply rooted in contextually situated approaches to agency” than the more typical overemphasis on “substantial causal efficacy (attributed) to individuals” in the literature (Schneiburg and Lounsbury, 2017 p. 282). Doing so involves placing greater attention to environmental and relational features of organizing and considering the role these might play in influencing organizational activity.

In social movement theory, a greater relative emphasis has been placed on questions of ideology and collective agency outside of formal and well-established organizations (e.g. Den Hond and De Bakker 2007; McCammon et al. 2001; Reid and Toffel 2009). As a result, organizational and management scholarship on organizational and field level change since the 1990s has owed a great deal to social movement theory. Writing from a sociological perspective, Fligstein and McAdam (2011 p.5) compare social movement studies and institutional theory:

In most versions of institutional theory, the routine reproduction of a field is assured because all actors *share the same perceptions of their opportunities and constraints and act in those terms when others make moves*. To the extent that change occurs at all, it is relatively rare and never really intentional. In contrast, for us (social movement scholars), there is constant jockeying going on in fields as a result of their contentious nature. Actors make moves and other actors have to interpret them, consider their options, and act. Actors who are both more and less powerful are constantly making adjustments to the conditions in the field given their position and the actions of others. This leaves great latitude for the possibility of piecemeal change in the positions that actors occupy. Even in “settled times,” less powerful actors can learn how to take what the system will give them and improve their positions in the field. (*emphasis added*)

In the above quote, the authors emphasize the ability for actors – including “less powerful” ones - to differentially perceive opportunities and barriers to change and include these within their mobilization strategies. They also highlight the structural aspects of leveraging change as it relates to the position of different actors and their actions to make adjustments to the conditions in the field.

In my study, I apply these ideas to middle managers with an interest in a particular issue yet lacking in the formal authority to drive change from the top-down (Meyerson and Scully, 1995; Sonenshein, 2014). This is consistent with Weber and King’s (2014) view of two major contributions at the intersection of management and social movement research. Firstly, and focusing on *how* organizations should be studied, social movement scholarship has facilitated extended views of how internal and external actors apply different mechanisms or “movement-like processes” to mobilize

change (Ansari et al., 2014; Meyer and Hollerer, 2010; Weber and King, 2014). Secondly, and focusing on *what factors* influence change, social movement studies have helped to illustrate how novel and informal aspects of the environment can shape change in organizations and fields (Koopmans and Olzak, 2004; Kriesi, 2006; Weber and King, 2014; Zietsma and Winn, 2008). While my research interest and focus is not on social movements, I draw on this literature to understand key features and dynamics of collective action in firms and examine framing as a means of mobilising activity and change in fields (Gray, Purdy, and Ansari, 2015). In the former category (how), I draw on the literature on interaction (Section 3.1) and framing (Section 3.2), and in the latter category (what), I focus on opportunity structures (Section 4.0), or environmental mechanisms (Campbell, 2005; Gray et al., 2015; McAdam and Tarrow, 2011; McAdam, Tarrow, and Tilly, 2001). These are described each in turn below.

#### 4.1 SOCIAL INTERACTION AND ORGANIZING AROUND SOCIETAL ISSUES

In terms of how individual and organized actors can affect change on particular issues, much of the literature to-date has concentrated on the organization and resourcing of collective civil action on changes to public policy (Meyer, 2004; Schurman, 2017; Walker, 2015), as well as the reputational and commercial factors behind firm responses to environmental, moral or ethical activist pressures (Bies, Bartunek, Fort, and Zald, 2007; Briscoe, Gupta, and Anner, 2015; den Hond and de Bakker, 2007; McDonnell, King, and Soule, 2015). Strong themes in this work therefore include those of public politics and the influence of controversy and the attribution of responsibility for social problems in triggering responses and driving change (de Bakker and den Hond, 2007; Vaccaro and Palazzo, 2015) as well as the discursive struggles behind the integration of broader societal issues into organizational and institutional decision-making (Hoffman, 1999; Maguire and Hardy, 2006; Mccammon et al., 2007). As a result, organizational scholars have gained important insight into the nature and role of contestation, politics and the disruptive tactics used by activist groups acting in

assigning blame and opposing firms (McDonnell and King, 2013; van Wijk and den Hond, 2013). In addition, we have also learned about the dynamics and influence of power related to the social positions of various movement actors, including those who hold binary ‘challenger’ or ‘incumbent’ positions within a particular institutional field and the implications of these positions on available resources to mount or hinder a contestation (Fligstein and McAdam, 2011; Markowitz, Cobb, and Hedley, 2012).

More recently however, researchers have begun investigating the application of these ideas to less explored “activists” or “targets”. The body of research on the political role of business is a good example of the former (e.g. Scherer, Palazzo, and Matten, 2010). This has for instance, led to research detailing how internal actors within firms leverage corporate networks to enhance their influence (Bouquet and Birkinshaw, 2008), as well as cases where corporations employ strategic and political tactics previously associated with social movements (Walker, 2012). In another example, examining the nature of conflict between the forestry industry and stakeholders Zietsma and Lawrence (2010) highlighted the cyclical nature of external actors’ work to both disrupt and reinforce institutional boundaries and practices over time, ultimately leading to practice innovation and field change. What these studies point to, is that there is increasing need to consider targets of change outside of key institutions such as the state, or big business (e.g. Schurman, 2004; Weber, Heinze, and DeSoucey, 2008). Further, scholars have also begun to highlight the implications of less obvious targets for change efforts, particularly when their relationship to the issue in question is less clear (Reinecke and Ansari, 2016).

As a result, researchers have also begun illustrating how advances in theory and interest in social movements and movement-like processes has “necessarily led to a blurring of boundaries” between the previously distinct empirical categories of contentious versus collaborative actions and dynamics between and among groups (de Bakker et al. 2013:577). The potential for actors to have competing interests; be sensitive to, and managing for potentially paradoxical demands; or, be operating at

multiple levels to advance change have also been highlighted (Markowitz et al., 2012; Scherer, Palazzo, and Seidl, 2013; Tracey, Phillips, and Jarvis, 2011). In such cases, actors may employ tactics that offer a bridge between, or alternative to, contentious tactics, such as the use of deliberative dialogue (Reinecke and Ansari, 2016). Others have emphasized greater focus on what they describe as ‘co-evolutionary’ processes between the actions and interests of mobilizing actors on the one hand, and the character and dynamics of the field itself (Oliver and Montgomery, 2008; Weber, Heinze, and DeSoucey, 2008). In one particularly relevant study, O’Mahony and Bechky (2008) illustrate how collaboration between “unexpected allies” can lead to new forms of organizing, not only through the contestation or the blurring of boundaries between groups, but by building bridges between articulated differences and common interests between groups.

Although a number of authors have underscored the potentially powerful, and even transformative, role that interaction between groups can have on organizational and field level change, they have also highlighted the general lack of detail regarding the mechanisms involved in this body of research (de Bakker et al., 2013; O’Mahony and Bechky, 2008; van Wijk and den Hond, 2013; Wijen and Ansari, 2007). In this study, I focus on this gap as it pertains to the mechanisms of interpretation and actors’ construction of issue significance as a basis for change (Gray, Purdy, and Ansari, 2015; Reinecke and Ansari, 2016; Werner and Cornelissen, 2014).

#### *4.2 SIGNIFICATION WORK, MEANING-MAKING AND FRAMING THEORY*

As a theoretical lens to understanding the individual, social and strategic processes of interpretation, mobilization and legitimation, frames and framing have long been popular in research on social movements and organizations (Benford and Snow, 2000; Cornelissen and Werner, 2014). Although the terminology of ‘theorization’ is more common among institutional theorists (e.g. Mena and Suddaby 2016), social

movement scholars conceptualise signification work or meaning construction by employing the verb ‘framing’ which, according to Benford and Snow (2000 p. 614):

Denotes an active, processual phenomenon that implies agency and contention at the level of reality construction. It is active in the sense that something is being done, and processual in the sense of a dynamic, evolving process. It entails agency in the sense that what is evolving is the work of social movement organizations or movement activists. And it is contentious in the sense that it involves the generation of interpretive frames that not only differ from existing ones but that may also challenge them.

Following this description, I adopt the view of framing in this study as ‘signification work’ or alternately ‘meaning work’ to emphasize the attachment of significance and meaning to an issue by a group of actors, rather than simply as a presentation tactic (Benford and Snow, 2000; Goffman and Erving, 1974; Phillips and Lawrence, 2012; Reinecke and Ansari, 2016). I apply these concepts to my investigation of actors’ efforts to mobilize others around a guiding set of ideas and meanings around a grand challenge issue and its relationship to the firm. As an extension of this perspective, I describe the actors driving framing processes as “signifying agents” to emphasize the important role they play “in the production and maintenance of meaning for constituents, antagonists and bystanders” instead of as passive “carriers of extant, preconfigured ideas and beliefs” (Benford and Snow, 2000a, p. 613). It is worth noting, however, that since my particular focus in this study is on the less-explored category of firm-internal agents of change, my application of the term ‘signifying agent’ (and simply ‘agent’ for brevity) is specifically used here to refer to internal organizational members and their use of meaning-making processes to “influence their corporations to support social issues” (Sonenshein, 2016, p. 350).

Scholarship on framing highlights two main elements of this type of work – i) the composition or referencing of an interpretive template through which a phenomenon can be understood, or the *frame* (Orlikowski and Gash, 1992) and ii) the active elevation and communication of specific moral, evaluative, causal or other frame features as particularly salient to defining or treating this problem or issue, or *framing* (Gray et al.,

2015). In other words, frames offer the central organizing scheme(s) of interpretation, whereas framing involves the construction or strategic presentation of issues in ways that correspond to the interests, values and problems of other actors (Cornelissen and Werner, 2014). When actors engage in framing activities, they provide coherence to a set of idea elements and ‘charge’ these with meaning around a particular issue (Fiss and Hirsch, 2005; Meyer and Hollerer, 2010). Frames and their relationship to framing is further explained by Snow (2013 p. 1356):

Frames contribute to interpretive work by performing three core functions.

- First, like picture frames, they *focus attention* by punctuating or bracketing what in our sensual field is relevant and what is irrelevant, what is “in-frame” and what is “out-of-frame”, in relation to the object of orientation.
- Second, the function as *articulation mechanisms* in the sense of tying together the various punctuated elements of the scene so that one set of meanings rather than another is conveyed.
- And third, frames often perform a *transformative function* by reconstituting the way in which some objects of attention are seen or understood as relating to each other or the actor.

Hence, unlike so-called equivalency frames where the same information is cast in either a negative or positive light (e.g. ‘95% employment versus 5% unemployment’), emphasis or issue frames highlight qualitatively different yet potentially relevant considerations, such as seeing the adoption of a new practice as either a threat or an opportunity (Cornelissen and Werner, 2014). The mobilization of actors around a particular issue is thus partly contingent on agents’ successful fulfilment of, and the achievement of cultural resonance around, what scholars call the three core framing tasks: diagnostic framing, prognostic framing and motivational framing (Benford and Snow, 2000; Weber, Heinze, and DeSoucey, 2008). When combined these framing tasks result in “a diagnosis of the social condition in need of remedy, a prognosis for how to effect such a remedy, and a rationale for action, a ‘call to arms’” (Polletta and Ho, 2006, p. 191).

The functions described above have also been organized into the different categories of processes by Benford and Snow (2000). In their oft-cited article, the authors describe how framing processes can be categorized into one of three sets of overlapping discursive, strategic or contested processes. For instance, research on discursive framing processes has been described as part of the ‘articulation’ function mentioned above, or the speech acts involved in making a compelling argument. The authors also point out how articulation is focused on the provision of a new angle on existing values or beliefs rather than “the originality or newness of its ideational elements” into a frame (Benford and Snow, 2000, p. 623). This is distinguished from the strategic process of frame extension, where organizations expand their framing to beyond their primary interests and as a step towards broader frame transformation – or the changing of old understandings and meanings to generate new ones (Benford and Snow, 2000). Frame extension can often involve contests and the incorporation of multiple interests following a period of conflict. However, less is known about the process of frame transformation and how the combination of multiple interests and ideational elements can result in a product and framing beyond the aggregate of individual parts. Some authors have argued that Benford and Snow’s article (2000) offers more of a typology than a theoretically robust explanation of framing processes (see e.g. Werner and Cornelissen, 2014; Cornelissen and Werner, 2014). For this reason, I follow others (e.g. Kurland and McCaffrey, 2016) in my focus on explaining how framing processes unfold rather than the degree to which they fit one or another basic category description.

Moreover and despite framing theory’s extensive use and theoretical roots in the principles of interaction, dynamism, and context, scholars have highlighted a number of unresolved questions in the way in which these aspects have (or have not) been examined. Firstly, most research has focused on diagnosis, assuming that the prognosis around the appropriate action and target of this action is straightforward (Kaplan, 2008). Also, researchers have questioned the depth of knowledge around the interplay between interaction, dynamism and context (Benford and Snow, 2000;

Cornelissen and Werner, 2014; Snow, 2013). In their review of framing in the organizational and management literature, Cornelissen and Werner (2014) point out that, in spite of the potential for this theoretical domain to reflect meaning systems and the dynamics underpinning the development and changes to these, most research applying the framing construct has been narrowly restricted to a single direction and level of analysis. In particular, although the authors detail three main strands of inquiry at micro, meso and macro levels, they argue that this body of work is dominated by a view of frames as static and pre-existing or as ‘menus’ to be ‘pulled down’ at the level of individual cognitive frameworks (Cornelissen and Werner, 2014; see also Meyer and Hollerer, 2010). Elsewhere, these same authors compare a similar tendency in social movement research to focus on the outputs of framing and “naming frames” and the attribution of success in framing to social skill, instead of accounting for the dynamic, socially situated process of meaning construction and mobilization (Werner and Cornelissen, 2014; see also Powell and Rerup, 2016; Schneiberg and Clemens, 2006).

Hence recent studies have taken inspiration from the interactionist tradition of framing wherein, “the symbolic aspects of meaning are continually being negotiated through ongoing interactions, but these interactions also reaffirm or challenge the frame repertoires available in the wider culture” (Gray, Purdy, and Ansari, 2015, p. 116). According to this view, “frames are understood as perspective-based co-constructions of meaning (rather than individual-based representations) and therefore, the criterion for frame change lies in the interaction (rather than the cognitions)” (Dewulf and Bouwen, 2012, p. 170). While many agree that framing is a process of negotiation and collective construction by various actors, scholars have also implored that “it is not simply what people ‘do’ that matters, but *how* they do so ‘together’ (Hallett and Ventresca, 2006, p. 216). On this basis, researchers have called for a “richer understanding of action, interaction and meaning” (Hallett and Ventresca, 2006, p. 213), as well as attention to “what process mechanisms underlie shifts in actors’ frames to enable consensus” (Ansari et al., 2014, p. 1018; see also Furnari, 2014). Further, this gap is even more pronounced, and arguably more critical, around issues of common

societal concern (Ansari et al., 2014) and in cases where actors not only create shared meaning, but also construct the very nature of an emerging issue itself (Hoffman, 2001).

## 5.0 THE ROLE OF CONTEXTUAL OPPORTUNITIES

Sociologists and political scientists have detailed a wide range of social, political, discursive and industrial elements within the environment that are central to frame construction and framing activities. These contextual factors and conditions are what Snow and colleagues (2004) refer to as the ‘metaphorical soil’ in which social movements, and efforts at change more broadly, either grow or languish. They also represent ‘new ideational elements’ that are often overlooked in existing research on framing. According to the so-called “opportunity structure” perspective, analysing environmental conditions alongside framing interactions and activities is important to understanding the contextual factors that affect frame plausibility, success and impact (Mccammon et al., 2007). Also referred to simply as ‘opportunities’ (Dorado, 2005) or ‘windows of opportunity’ (Aberbach and Christensen, 2001), most scholars conceptualise opportunity structures as objective features of the macro social environment which afford particular interpretations (Meyer, 2004). While the bulk of this research has examined the state as a target of movement activities, the concept has also been applied to corporate and industrial settings, and examinations of how corporate or industrial structures can enable or inhibit social movements (e.g. Briscoe, Chin, and Hambrick, 2014; Schurman, 2004).

In both institutional and social movement research, the advantage offered by this perspective lies in the counterbalance it offers to the view of ‘hypermuscular’ institutional entrepreneurs able to realise change, or attributing success or failure of social movements predominantly to strategy (Lawrence, Suddaby, and Leca, 2009; Meyer, 2004). A good many researchers have illustrated how political, discursive and cultural features can dictate what is “sayable” about an issue within a certain field,

which ideas are most salient at a given point in time, and where possibilities exist to change the dominant rhetoric (Meyer and Hollerer, 2010; Taylor, 2000). These opportunity structures thus allow actors to “periodically assess whether the time and place are ripe for action” (Briscoe et al. 2014, p. 1789).

For example, Polletta’s and Ho’s (2006) study applies the concept of discursive opportunity to their investigation of the partial meltdown of the nuclear reactor at Three Mile Island in 1979 in Pennsylvania. Like the Fermi reactor meltdown in Chicago in 1966, this incident required evacuation of residents and gained national media attention. However, differences in discourse at the times of the two episodes meant that Fermi was interpreted as simply an accident due to the predominant “faith in progress” frame in use by the media at the time. In contrast, shifting public perspectives a decade later meant that reports of the Three Mile Island accident were more frequent and dramatically framed. In this latter case, the prevailing discourse had shifted to frames punctuated by fears of the risks of nuclear safety. As such and in contrast to the Fermi accident, Three Mile Island was interpreted as a major symbol of the dangers of nuclear power as well as a public crisis of significant proportions, leading to calls for and the adoption of widespread changes in the industry.

Polletta’s and Ho’s example is reflective of many similar studies of political and discursive opportunities in the social movements literature (see also, Benford, 1993; McCammon et al., 2001), and it highlights the importance of differences in public sentiment as a key factor in research on framing. However, these studies do less to explore what Kriesi (2006) calls “relative opportunities” (p. 78) or those at a lower or group level that “are to a large extent determined by the configuration of actors and the structural context” in which they interact, such as issue fields. One exception to this is Schurman’s (2004) work highlighting how the specific ‘contours’ of a particular corporate environment or industry are reflected in strategic efforts to change corporate behaviour. Another is Kellogg’s (2011) study of intern labour practices at three surgical hospitals. This article offers a unique perspective by approaching the

concept of relative opportunities through an examination of cultural and political conditions within reach of hospital actors. She shows, for instance, how interns leveraged media references to medical interns as ‘zombies’ to advance their injustice framing of traditional ‘scutwork’ practices. However, in addition to this, she argues that the success of intern efforts to advance and adopt new practices in the hospitals was ultimately achieved through coordination and the construction of cultural mechanisms or opportunities, including the development of a “we” attitude among fellow reformers.

Thus while most research on opportunities portray these as relatively stable or predictable structural conditions there has also been significant criticism of this approach and its continued overemphasis on structure over agency, without sufficient acknowledgement of the recursive influences between them – as seen in the Kellogg case. McAdam (2001) uses the well-known example of Rosa Parks, the Montgomery Bus Boycott and the beginning of the civil rights movement, to make a similar point:

This was no demure southern lady who automatically took advantage of an *objective structure of opportunities*. She had a history of civil rights activism which led her and her Montgomery supporters to *attribute an opportunity*, not only to the injustice of bus segregation but to the potential economic clout of the city’s black population (p. 46; emphasis added).

Like McAdam, Suh (2001) sees participants’ interpretations and perception of the context in which the possibility of change is occurring as key, arguing that this framing process “transforms political opportunity from a mere structural potential into a structural determinant.” As such, context is key, as is “*interaction* with other social structures, social actors and ... opportunities” (Schurman, 2004; emphasis in original). Hence, in this study, I see opportunities as both features of the broader macro-environment and more immediate meso-level contexts in which actors operate. These contextual opportunities can be both “pulled-down” and charged with meaning, as well as “built up” to support - or indeed, constructed by - collective framing efforts

(Dorado, 2005; Gamson and Meyer, 1996). To foreground the role of context, I apply the terminology of ‘contextual opportunities’<sup>1</sup> to refer to the set of opportunities available to actors at any given time and ‘material opportunities’ to specifically focus attention on this newly developed concept within the broader set.

## 6.0 SUMMARY

In this chapter, I provided an overview of alternate literatures on sensemaking, issue-selling and the role of middle and corporate social responsibility managers before reviewing research related to social-ecological issues and change in organizational theory and social movement studies. In contrast to the individual and structural orientations of these alternatives, I focused in this chapter on literatures that offer sufficient foundation for and balance to portrayals of structure and agency. In particular, I locate my dissertation within the literatures on issue framing and social movements in order to focus on actions at the individual (micro) and organizational level (meso) that offer linkages to societal questions such as those at the (macro) level of grand challenges.

Despite the stronger foundation provided by these literatures, I found that large gaps exist, particularly at the intersections of interest in my study. I illustrate how the assumption of established systems of meaning and structured ‘rules of the game’ that underpins work in organizational and institutional studies do not easily apply to grand challenges (Reinecke and Ansari, 2016). I then turned my focus to agents of change and signification, noting that the literature has issued repeated calls for research which offers more conditional accounts of agency from the bottom-up, including through dialogue and collaboration instead of a more typical focus on conflict.

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<sup>1</sup> My literature review also revealed a significant lack of consensus regarding the definition and application of key terms such as political or discursive opportunities (see for instance, Kreisi, 2004) - something I am unable to resolve in this study.

I argue that framing theory has the potential to address these themes, in particular because it deals with both the ‘frames of reference’ and meaning that guide individual and organizational action and actor efforts to shape and share meaning. Framing theory also provides a bridge to the concept of ‘opportunities’ or contextual conditions that can help to facilitate the resonance of particular meanings. Both ‘opportunities’ and the notion of actor ‘effort’ have received less direct in organizational research (Cornelissen and Werner, 2014; Lawrence et al., 2009; Werner and Cornelissen, 2014). Studying these questions I argue, may “hold the key to understanding the nature of embeddedness and expressions of agency that are effortful and experimental” to emphasize reflexivity and purpose (Lawrence, Suddaby, and Leca, 2011, p.56), as well as offer insight into work that goes “beyond new ways of doing things” to imply “new ways of seeing things” (Marti and Nair, 2009, p. 93).

In hopes of contributing to both these specific questions and larger themes in the literature, my study asks, *how do firm-internal agents interpret, signify and mobilize organizational responses to grand challenges?*

## CHAPTER 3: METHODOLOGY

### 1.0 RESEARCH FOUNDATION AND APPROACH

The research philosophy I apply in my dissertation is inspired by organizational scholars' exploration of a so-called "third way" of approaching social scientific inquiry (e.g. Cornelissen, Mantere, Vaara, and Vaara, 2014; Delbridge and Edwards, 2013; Mutch, Delbridge, and Ventresca, 2006; Marti and Mair 2009) that builds on existing perspectives while reinterpreting the conventionally strict divisions between subjectivism and objectivism (Al-Amoudi and Willmott, 2011; Martela, 2015). These scholars view the pursuit of alternatives to such strict divisions as part of a broader evolution of social scientific inquiry in which a fundamentalist approach to incommensurability between research paradigms is discarded (Weaver and Gioia, 1994) in favour of meta-theoretical alternatives that allow for analytical movement between the traditional 'poles' of the object/subject divide (Hassard and Cox, 2013.)

In particular, the approach I adopt is one that draws on prior work by Emirbayer and Mische (Emirbayer, 1997; Emirbayer and Mische, 1998a) and aligns most closely to that described by Garud and Gehman (2012) as offering a relational perspective. Like Garud and Gehman (2012), my choice of approaches is informed by an interest in the relationship between society - and of course, organizations - and the natural environment. It is also informed by my own individual background as a sustainability practitioner with past training in the natural sciences. Hence a key feature of the relational approach pertinent to this study is the relatively rare latitude it provides for scholars who acknowledge the existence of obdurate features of the social and natural world but view a structural focus as an incomplete reflection of influence on human action (Boxenbaum, 2014; Mutch et al., 2006). More specifically, while my research reflects a belief in a physical world that exists independently of our theorization of it,

it also emphasizes that these elements can be subject to and shaped by interpretation and interaction (Garud and Gehman, 2012; Leonardi, 2013; Whiteman and Cooper, 2011).

In relational approaches, agency is conceived as an emergent property of actors' engagement with "different contextual environments that constitute their own structured yet flexible social universes" (Emirbayer and Mische, 1998, p. 973). These contextual environments include both social and material elements that actors experience and interact with differently, distributing agency differently across individuals and groups (Garud, Kumaraswamy, and Karnøe, 2010). According to this view, the ability to influence (but not determine) the processes that develop is based on the interplay of these elements as well as the efforts of actors to "probe their worlds to find out how they may unfold" (Garud et al. 2010). This is described by Emirbayer and Mische (1998) as the capacity for practical evaluation where "actors strengthen their ability to exercise agency in a mediating fashion enabling them (at least potentially) to pursue their projects in ways that may challenge and transform the situational contexts of action themselves" (p. 994). It is for this reason that I use terminology to emphasize intent, attempt or effort, as opposed to less distributed accounts of agency in interpretation and action (Phillips and Lawrence, 2012).

What this orientation allows is the opportunity to embrace what scholars refer to as a situated stance on the question of agency and action (Boxenbaum, 2014), where actors are embedded in space and time and responsive to specific situations that are not the result of structural determinism (Mutch et al. 2006) or a hagiographic capability (Lawrence et al. 2011). Applying a situated stance to empirical inquiry means that the analytical perspective adopted is shifted 'upside down' by focusing on how actors' motivations, interpretations and actions respond to and influence their environment rather than on how features of institutionalized systems are diffused (Boxenbaum, 2014).

A relational approach is thus able to draw on empirical observations that capture both structural and constructivist moments (Hallett and Ventresca, 2006) by offering bi-directional attention to action-in-context (Zilber, 2016). In such cases, the role of the researcher is thus to trace the configurations of heterogeneous social and material mechanisms constitutive of dynamic action around issues and events (Czarniawska, 2004; Gehman, Trevino, and Garud, 2013; Wooten and Hoffman, 2017). Hence, I examine how meaning work connects contexts and action in order for issue attention and action on grand challenges to emerge. I use my data to illuminate how socially and materially entangled actors shift their actions and interactions with these elements in an attempt to influence the processes that unfold. This requires context-sensitive theorizing (Zilber, 2016) and an analytical focus at the level of mechanisms that link the structures and configurations of agency and action involved in generating observed events (Weber, 2006).

## 2.0 RESEARCH STRATEGY AND DESIGN

Given the underexplored nature of this topic and my broader aim of developing new theory around the question outlined above, I've adopted an inductive and emergent research strategy aimed at generating theoretical categories and relationships that could not be derived from existing research (Corley and Gioia, 2011; Eisenhardt et al., 2016; Maanen, 1979; Suddaby, 2006). By focusing on "how and why" (Yin, 2009) questions and taking an open-ended and reflexive stance to my study, my research design aligns with the overarching principles and processes typical of grounded theory development (Charmaz, 2014).

In terms of research design, I pursued an in-depth case study approach featuring ethnographic methods in order to "follow" or "shadow" the actors while examining how people understand the changes they are involved in and how those meanings evolve (Garud and Gehman, 2012; Langley and Abdallah, 2011; Nicolini, 2009; Zilber, 2002). My intention with such an in-depth approach was to gather sufficiently rich data

to engage in the extensive, creative and interpretive process of analysis demanded of grounded theory (Denzin and Lincoln, 2011). Also, because of my particular interest in how change processes unfold around emergent and complex social-ecological phenomena, my orientation was also processual in nature and sensitive to context (Van de Ven, 2007; Garud et al. 2015; Garud et al. 2014).

In process studies, scholars focus on activities, event sequences and interpretive choices within a particular context to identify the generative mechanisms and evolving meanings involved in change processes over time (Langley, 2009; Langley, 1999). This approach is typically contrasted with variance studies, where the aim is to generate testable hypotheses or propositions regarding new independent variables through a number of comparative cases (see Figure 1). When cases are added in process-theorizing, they serve to reinforce theorizing around patterns identified in one case by showing how similar processes occur in different settings and contexts, rather than to explore or emphasize variance (Gehman et al. 2018; Abdallah et al. 2011). Hence, my research design also included two additional supplementary cases in order to illustrate a degree of generality in my resulting theory (Gehman et al. 2018) and allow my “theoretical ideas to be tested and deepened in different settings” (Langley, Smallman, Tsoukas, and Van De Ven, 2013, p. 7).

According to Jarzabkowski and colleagues (2019), these different settings, or ‘sites’, are particularly relevant for researching the events, activities and choices associated with actors’ dynamic engagement with grand challenges. In such instances, these authors argue, the value and scope of a particular case lies not only in the organization it seeks to represent, but in the point of connection it offers to the local manifestation of a grand challenge and how it can reveal or instantiate global practices among different groups. My research parallels these ideas by looking at organizational cases and agents within them as an entry point to a broader group of actors’ as they engage particular issues, leverage interdependencies and seek to transcend local and

organizational boundaries in problem-solving (Jarzabkowski, Bednarek, Chalkias and Cacciatori, 2019).

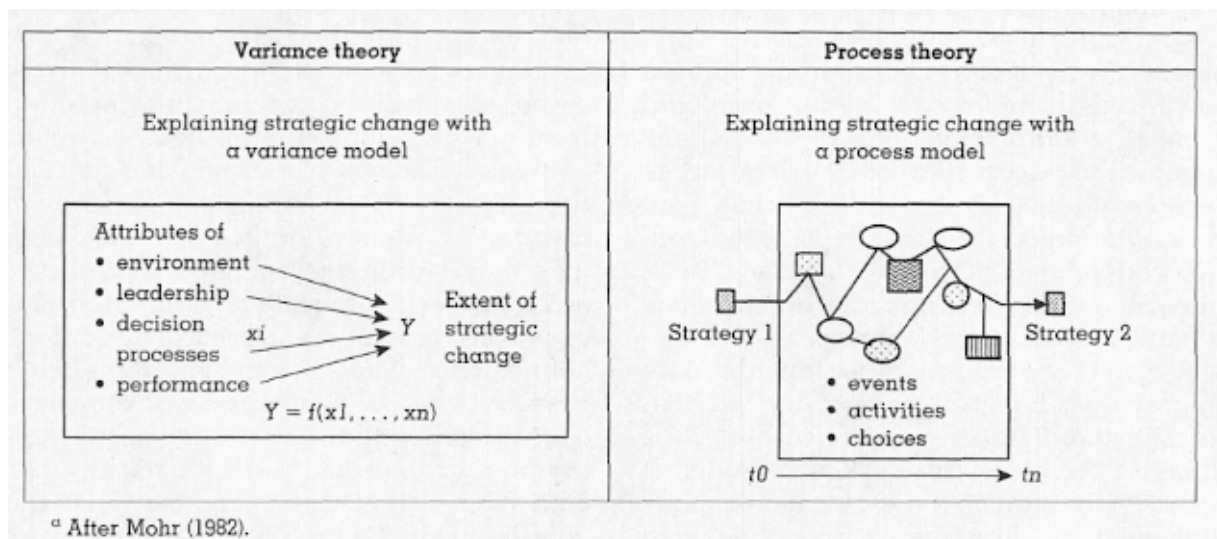


FIGURE 1. COMPARING PROCESS AGAINST VARIANCE STUDIES (LANGLEY, 1999, P.693)

In terms of case selection, my study follows the recommended approach in qualitative grounded theory to pursue cases and data objectives on the basis of their relevance to the questions and concepts of interest (Maxwell, 1989) and the theory being constructed (Suddaby, 2006). The cases selected fit scholars' description of firms which are under-researched but potentially valuable sources of insight regarding new forms of organizing in response to social-ecological challenges (George, Howard-Grenville, Joshi, and Tihanyi, 2016; Pogutz and Winn, 2016; Whiteman et al., 2013). In particular, I have selected cases for with potential to uncover not only individual organizational experiences of engaging grand challenges, but also specific manifestations of the problem as well as how such experiences may be grounded in wider systemic tensions (Jarzabkowski et al. 2019). Yin (2009) refers to such cases as "revelatory" because of their potential to develop a new insight around an understudied phenomenon (see also Eisenhardt et al. 2016).

## 2.1 RESEARCH CONTEXT AND CASES

My dissertation draws on the experiences of three case study firms grappling with grand challenge issues beyond the boundary of the firm, including: Sunsure, a South Africa-based insurance company; Woodstones, a South Africa-based retailer, and; Max&Co, a European retailer<sup>2</sup>.

My identification of Sunsure as a case of interest pre-dates the work on this thesis to a project I was involved in in 2009/2010 which exposed me to the organization's concerns around changes in the natural environment. Through this project and later unrelated projects in which I was also involved, I was afforded the opportunity to interact with and observe the work of a team of agents involved in change efforts relating to sustainability and grand challenges at SunSure over several years. Sunsure is one of the oldest and largest short-term insurance companies in South Africa with personal, commercial, specialist and agriculture lines in the country and elsewhere on the African continent. Like other insurers the world over, Sunsure has been affected by the increasing frequency and magnitude of climate-related extreme weather events, particularly in the decade after 2000 - the period following which this study investigates.

In addition to SunSure, I also investigated two supplementary cases - Woodstones and Max and Co. Woodstones is one of South Africa's largest retailers, having existed for over three quarters of a century. The company focuses on homeware, clothing and food and is increasingly growing its footprint to other markets in the southern hemisphere. Over the last two decades, one of the areas of greatest growth and recognition for the company has been on its foods business and in particular, fresh produce. In addition to an investment in a strong network of local and regional

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<sup>2</sup> In keeping with the confidentiality agreements and ethics procedures approved by the University of Cape Town and participating companies as part of this dissertation, I have used pseudonyms throughout this document to protect the individuals and firms involved.

suppliers, Woodstones has differentiated itself in the market through an emphasis on sustainability, quality and uniqueness. In this study, I investigate the initiation, growth and maturity of Woodstones work to improve the health of the soils and ecosystems that support its fresh food supply.

Finally, Max&Co is a retailer with a long history on the highstreets of Europe which began before the turn of the 20<sup>th</sup> century. Like Woodstones, Max&Co focuses on food, homeware and clothing and has grown significantly over its life to become a recognizable brand in its home market and abroad. The foods side of the Max&Co business draws on an extensive network of producers and suppliers all over the world. In some cases, Max&Co depends heavily on particular regions for specific products (e.g. strawberries). Following the first phase of the PlanetPurpose program that brought Max&Co significant public attention, they began to look to issues of sustainability in their supply chain, including in water security as explored in this study.

In all of these cases and by the time I initiated my study, the company had made public statements and early commitments to finding ways to address the grand challenges I focus on in this study. As such, I considered the broad overlapping aims of these three large multi-national firms and the early stages of development and implementation around grand challenges to be comparable in the context of theoretical sampling.

## *2.2 DATA COLLECTION AND SOURCES*

Data collection for this study was conducted between 2013-2016 with the bulk of interviews being carried out in 2014. However, even before 2013, I had grown familiar with the SunSure case through my involvement in a prior research project during 2010 and 2011 in which they were the focus. My experience on this initial project drove me to ask questions around the future activities of SunSure relating to social-ecological challenges and this hence became an important inspiration and opportunity for this

dissertation. I also found that, in addition to facilitating significant insight into the 'behind the scenes' activities of the firm and surrounding context from the start, the prior project facilitated important insights into the initial emergence of SunSure's efforts examined here. Because of their relevance, I included my notes and transcripts from the 2010 project in my data analysis for this thesis.

My selection of data sources was therefore driven by a desire to unearth the processes and mechanisms involved in the movement from the recognition of grand challenges to their advancement as an issue of critical interest within firms. In keeping with the relational approach to research described above, this involved collecting data on the intentions and interpretations of actors associated with such phenomena, as well as observational data relating to the social and material contexts in which shifts in frames and action appeared to be connected or occurring (Langley and Abdallah, 2011; Ansari et al. 2013; Whiteman and Cooper, 2011). For example, I used memos to detail my own impressions from interactions and observations concerning what events and activities appeared to play a significant role in triggering change in both the data collection and analysis phases (Ansari and Phillips, 2012; Maxwell, 1998). My notes and memos also captured my own reflections on interaction between organizational members and partners that signaled emphasis, support or confusion, etc. These included references in my notes to language, gestures and exchanges observed at meetings, in the office, or in the field when for instance, particular language was used or repeated, or when individual gestures or expressions indicated dis/agreement or uncertainty (e.g. by nodding, shaking or angling one's head in thought).

However, since interviews are essential to probing individuals' choices and actions (Boxenbaum, 2014; Balogun and Johnson, 2005), interviews became the chief source of data in this study. My interviews were semi-structured and conducted with managers within the firms at the center of these cases as well as with internal and external allies. In addition to those involved in meaning making for the case study

organization, I also conducted interviews with other actors in the issue field, including farmers, experts, and actors aware of the case study activities from other organizations. The full list of interviews, including interviewee codes, can be found in Appendix A. Branching out from those leading the grand challenge-related initiatives of interest, this list of interviewees was compiled using the snowball technique informed by and including those involved in and associated with the initiatives (Miles and Huberman, 1994).

My questions and the direction of the interview dialogue emphasized gathering information regarding individuals' experiences of the focal initiatives and its evolution and uptake within the firm. But my interviews also touched on the broader context, perceptions of important social and ecological drivers of change and the impact of various efforts at advancing these issues within the firm. As is common in process research, I found my interviews to consist "largely of stories about what happened and who did what when – that is, events, activities and choices over time" (Langley 1999, p. 692; see also Weick, Sutcliffe, and Obstfeld, 2012). My interviews were recorded and transcribed, resulting in over 1000 pages of transcribed text.

I also collected hundreds of pages of observational notes taken during times spent in the offices of the case study companies (a week each in Sunsure and Woodstones) and while observing interactions between the signifying agents and others in relation to the grand challenge initiatives. These included in meetings, public discussions, telephone calls, casual interactions at events and in the office. For these and in the document analyses, I recorded my own thoughts on relationships, key messages, language use and areas of uncertainty in relation to the grand challenge initiative or features of natural environment.

**TABLE 1. SUMMARY AND DESCRIPTION OF DATA COLLECTED**

<b>Data Type and Description</b>	<b>SunSure</b>	<b>Woodstones</b>	<b>Max&amp;Co</b>
<b>Interviews</b>	35	24	12
Number interviewed more than once	5	4	1
Number of interviews conducted in part or whole by another researcher	3	3	1
Interviews conducted as part of a related project <sup>3</sup>	11	2	1
<i>Semi-structured interviews with those familiar with or involved in the grand challenge initiative. Interviews generally lasted between one and two hours in length and were transcribed from recordings with only a few exceptions.</i>			
<b>Field notes</b> (estimated 1000 handwritten notebook pages and drawings)			
Estimated hours of observation	16	58	16
Estimated hours on a related project	38		
<i>Notes from time in head office and field visits to project sites with organizational members and external actors.</i>			
<b>Meetings and Seminars</b>			
Estimated hours	32	15	8
<i>Notes from attendance at formal meetings and public seminars in which initiative was discussed.</i>			
<b>Documents</b> (Estimated page length)	82 (550)	96 (650)	84 (550)
<i>Internal and external documents such as presentations, policies, websites, meeting notes, project descriptions, memoranda, contracts, evaluation documents, reports, &amp; media coverage</i>			

<sup>3</sup> The related research projects included: i) an earlier project with SunSure which examined the impact of extreme weather events from the perspective of external stakeholders and ii) Projects under a research program titled “Organizational innovation and intermediation in social-ecological systems” which involved coordinated interview protocols and questions across three different graduate-level projects supervised by the same Research Chair, including this one.

### 3.0 DATA ANALYSIS

My data analysis relied on the application of grounded theory approaches to the exploration and analysis of interpretations and actions of individuals and groups living through the same processes of broader organizational change (Isabella, 1990; Langley, 1999). This involves the analysis of qualitative data to induce meaningful patterns in sequences of events, actions and contextual elements (Reay and Jones, 2016; Van De Ven and Poole, 1995). In process-oriented cases, patterns emerge inductively from the repetitive coding, labelling and categorization of text gathered from observations, documents and interviews (Langley, 1999; Charmaz, 2006). This process of grouping and re-grouping is realized by moving iteratively between and among data and the concepts, models and categories being generated using a system of constant comparison (Figure 2). In my study, this process was supported by the Nvivo qualitative research software, which I used to digitally code textual data imported into the program, as well as Microsoft Powerpoint to map emerging relationships, events and thematic connections being identified throughout the period of theoretical analysis. The Nvivo software program did not code on its own, but helped me to manage, connect and re-configure the large amount of data being analysed for this study.

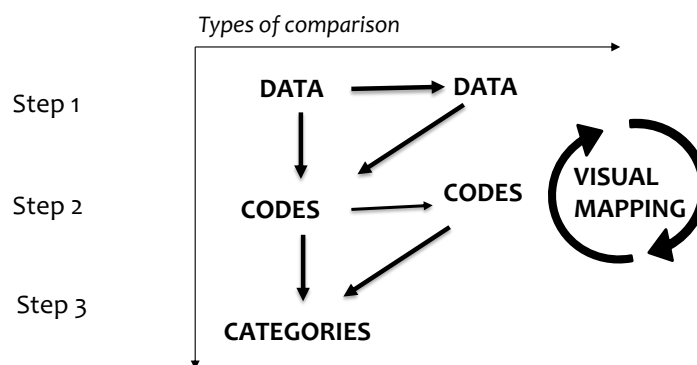


FIGURE 2. ILLUSTRATION OF OVERARCHING ANALYTICAL PROCESS

The first step in the coding process involved what is often described as open-coding (Corbin and Strauss, 1990), in which first-order codes are assigned to summarized sequences of text and striking quotations from the interviews and other text data. The emphasis during this stage was on achieving a degree of spontaneity (Charmaz, 2006) as well as fidelity with the interpretations, intentions and actions described by informants as so called 'knowledgeable agents' of their own organizational reality (Gioia, Corley, and Hamilton, 2013). At this point, the key role played by middle managers in interpreting and implementing change (Balogun and Johnson, 2005) in the three cases began to stand out. The initial coding process ultimately led to over 100 first-order codes.

The second step in this process involved more focused coding in which the most frequent and significant earlier codes are reviewed, compared and regrouped or reformulated according to their analytical value and sensitivity (Charmaz, 2006). This second step also involved asking questions of the data in terms of relationships between actions, events, and conditions in order to reach a higher level of conceptual abstraction. A number of iterations of this process eventually resulted in 20 codes. A key part of this second step was the consideration of "key events in the eyes of organizational participants" as well as those identified in my own memos to understand how these had "made a difference in people's thought and action" (Isabella, 1990, p.11) especially middle managers.

Theoretical coding is the third major step in this process, in which tentative theories about the above questions and relationships between codes are further developed and refined (Charmaz, 2006). In theoretical coding, my aim was to determine when my categories had been sufficiently developed so as to capture the key concepts and their analytical relationship with other concepts (Charmaz, 2017), signaling that theoretical saturation had been reached (Glaser and Strauss 1967; Gioia et al. 2013). Although these steps were followed more or less sequentially, the second and third

steps were repeated more than once, when more data was added and concepts revised. Figure 3 illustrates the data structure (Gioia et al. 2013) that synthesizes my movement from initial codes to conceptual mechanisms and theoretical processes.

The coding process also involved visually mapping and modelling emerging patterns and linkages between key concepts and elements of context, action and interpretation (Langley, 1999). I found that my maps and categories provided an important intermediary step between raw data and conceptual development (Langley, 1999) and after dozens of iterations, gave rise to temporally bracketed “periods” or “phases” of events that occur over time (Van de Ven and Poole, 1995). During my conceptual development, I also found that key changes could not be linked to singular triggers (e.g. intentions) or exogenous events (e.g. shocks), but rather that progress was achieved through combinations of intersecting parts that “produced an effect not inherent in any of them” (Davis and Marquis, 2005, p. 336).

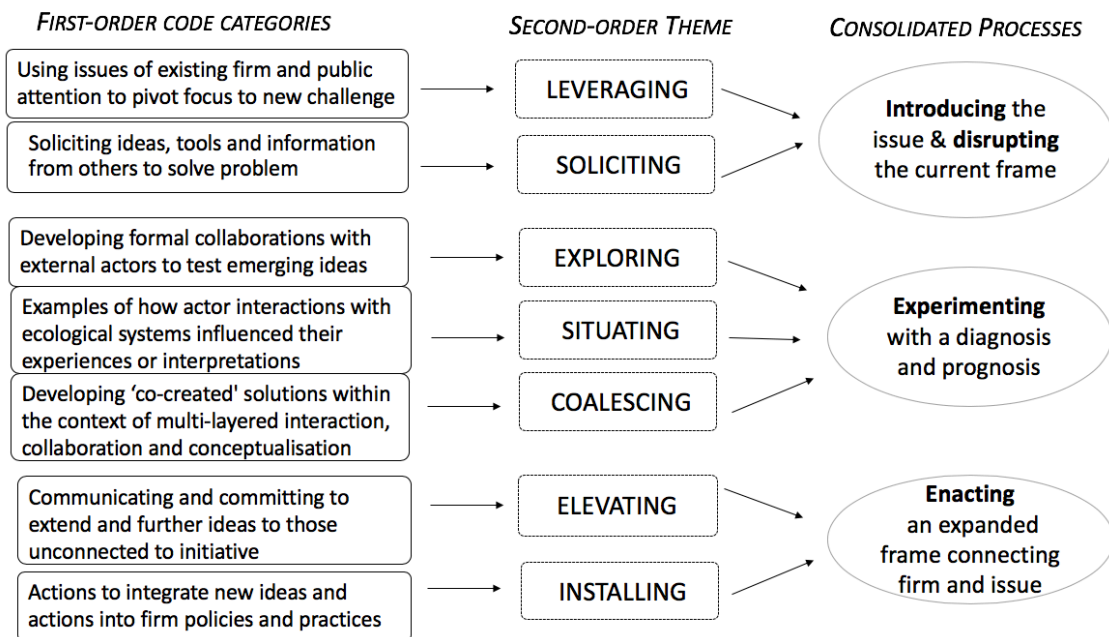


FIGURE 3. DATA STRUCTURE AND CODE PROGRESSION

Next, in consulting the literature further about the principles and techniques of determining the underlying patterns in process data (Langley, 1999; Reay and Jones, 2016) and identifying examples of mechanism-based theorizing (e.g. Gray et al. 2015; Reinecke and Ansari, 2016), I began to dig deeper into my conceptual maps and categories to seek out the underlying drivers or combinations of elements that appeared to “interact to generate the observed events” (Weber, 2006 p. 122; Reinecke and Ansari, 2016; Kriesi, 2006). This portion of the analysis gave rise to key interpretive (framing) and environmental (opportunity) mechanisms in which new understandings and possibilities for action (“issue advancement stages”) were moored (Campbell, 2005). In particular, this process revealed the presence of social-ecological mechanisms that afforded issue advances. I highlight “how actors noticed and connected to ecological cues” (Whiteman and Cooper, 2011, p. 895), take ecosystem dynamics into account (in the form of representations by actors), or identify these as an implicit or explicit focus preceding social action (Boons, 2013) by using the label ‘material objects’.

Overall, the coding and mapping process took approximately 3-4-5 months, initially in a block of about 2 months followed twice by 3-4 week periods of regrouping, re-mapping and comparing concepts with emerging data from the third and last completed case study bulk data collection. Throughout this period, I found that particular codes, categories and combinations had to be reconfigured or eliminated on the basis of their relevance to the emerging theory and across cases. For instance, I found during focused coding, that national context might be an important feature of driving change in the first two case studies, however, it was not apparent in the third case study. In subsequent coding and analysis, I also found that structure and context were also important considerations and so had to re-code for this. I also later found that, for instance, the specific concept of political opportunity structures was relevant in the first and third case studies, but not relevant in the second. The resulting theory thus highlights the configurational and contingent nature of linkages between action

and context instead of attributing change to one or another of these opportunities (political, material or otherwise) events or a variance in cases.

### *3.1 CONSIDERATIONS OF QUALITY AND CREDIBILITY*

In the qualitative tradition, considerations of research credibility and quality are built into and interact with all other aspects of the research design. This approach therefore extends from assumptions and reflexivity, to data and the approach taken to analysis and conceptual development (Maxwell, 2008). Eisenhardt and colleagues (2016) suggest that the rigor and quality in inductive studies on grand challenges rests on three main features: strong and internally coherent theory; constructs grounded in compelling data, and; the researcher's ability to provide fresh insights not easily discernable from existing work. Both Miles and Huberman (1994) and Maxwell (2008) summarize key strategies for achieving these, many of which I apply in my study.

Charmaz (2017) argues that rich, substantial and relevant data provide a strong and necessary foundation for a credible depiction and appropriately scoped analysis. For these reasons, my data collection drew on multiple sources in order to triangulate across individual, official, internal, external, observational and testimonial data types (Yin, 2009). It also drew on longitudinal data from archival and real-time observational, interview and document data (Langley et al. 2013). In addition, I strove to constantly compare data (Charmaz, 2013) while maintaining the integrity and independence of initial informant-centric codes, concepts, and eventually, constructs in my analysis. This required ongoing attention to the formulation and refinement of dynamic relationships between concepts and to the discernment of key processes among these (Gioia et al. 2013).

To increase the theoretical validity of my study, I also carried out member-checking relating to my emerging categories and interpretations, including through formal

presentations in which case study participants were present (Langley and Abdallah, 2011). Finally, while it is well recognised that generalizability may not be possible or desirable in all qualitative studies, my addition of two supplementary cases and discovery of similar process patterns within these cases correspond to what Langley and colleagues (2013) understand as replication strategies because of their ability to represent "different ways of decomposing the data" (p. 707) into processes discerned from observations and within temporal periods from across cases rather than simply the cases themselves.

## CHAPTER 4: FINDINGS

### 1.0 INTRODUCTION

In this chapter, I report on the findings of my analysis of efforts by agents and their allies to advance organizational responses to grand challenges. My focus is on the processes and mechanisms involved in the framing of grand challenge issues by firm-internal agents. My research highlights how the interplay between framing processes and various material, social and environmental opportunities is central to agents' meaning work and its staged progression over time. A key finding of my research hence concerns the contingencies involved in this work, where the success of signifying agents' efforts is continuously shaped by the social and material conditions at any given point in time. Another key finding of my work relates to the role of agents and allies in co-constructing opportunities that support their cause within and beyond the firm.

In the next sections (2.0-4.0), I provide detailed narratives of each case study. These accounts begin with each firm's original strategic frame, and they end with the expanded frame resulting from actors' framing efforts. These frames are described with reference to three main features – the firm's overarching business objective, the salient context and stakeholders, as well as the key practices relevant to achieving this goal. I first detail the experiences of SunSure Insurance, my anchor case, in Section 2. I then follow this with two shorter expositions of the Woodstones and Max&Co cases (Sections 3 & 4) to further supplement my analytical findings. This chapter then culminates in my inductively derived model depicting 'interactional framing for grand challenge issue advancement' in Section 5 which is summarized with reference to my data and the prior exposition of case narratives.

## 2.0 MAIN CASE STUDY: SUNSURE INSURANCE

### 2.1 SUNSURE'S EXISTING FRAME

Prior to the initiation of issue advancement activities at SunSure in 2008, the assumptions, knowledge and expectations of organizational members' primary frame concentrated almost entirely on the commercial dynamics of the insurance market including the firm's competitiveness. SunSure's chief business **objective** was to enjoy significant profits, continued growth and a dominant position in the industry. They wanted, according to a 2005 Annual Report, to "be recognized as the best in everything we choose to do" (SS Docs). The firm's existing and potential consumers in domestic short-term insurance market and shareholders were thus the **salient context** and **stakeholders** they looked to for achieving this goal. It was a time when, according to one interviewee, SunSure "just considered the shareholder or investor – and perhaps the policy holder and broker - as the only stakeholders" (SA SS1.5).

The **practices** Sunsure depended on for achieving this goal were based on standard risk assessment and actuarial methods used in the industry, adapted internally with the aim of attaining a superior formula to that of their competitors. The driving logic behind the formula was based on the organization's rules that guided underwriting, or the assessment, prediction and selection of risks that they deemed appropriate and profitable to pool. "In the past, all that SunSure was doing was that if a particular risk exceeds the appetite, we cannot deal with that, we will not underwrite that" (EMP SS2.6). In the case of extreme weather events, SunSure's assessment methods depended primarily on statistical analyses of historical events to determine the odds of loss (e.g., the likelihood of a 1/100 year flood) and ratings for pricing and selecting insurance coverage.

Serving these customers effectively, growing their consumer base and transparently communicating with shareholders were also important aims for the company (SS Docs). However, the company's attention to and spending on social issues beyond the boundary of the firm was scant, with the exception of an annual donation of approximately 0.2% of their

post-tax profits to charities. The coupled issues of climate change and extreme events were not on SunSure's agenda or radar and did not appear in official strategy or reporting documents.

## 2.2 STAGE 1: INTRODUCTION AND DISRUPTION

In the initial stage of issue advancement, the focus of emerging signifying agents' efforts was on **introducing** the issue of climate change and extreme events within SunSure and **disrupting** the existing frame to be reconfigured. This involved firstly, **leveraging** public events that brought attention to the issue and secondly **soliciting** other actors for assistance in assessing the issue and its relevance to firm objectives. I describe these further below following a short summary of the context prior to and at the time that signifying agents began their framing efforts.

### *Background*

In 2007, the International Panel on Climate Change (IPCC) released its 4<sup>th</sup> global assessment report, which included a discussion of the economic impacts of climate change between the 1960s and 1990s as well as the rise in insured losses due to extreme weather events over this same period (IPCC, 2007). Some of the assessment data was drawn from major global reinsurance companies, who had also released their own reports emphasizing the increasingly strategic implications of climate related weather events for the insurance industry (Swiss Re, 2005; Munich Re Group 2005). For a few managers watching these events from within SunSure - like Nellie, a senior manager in the Strategy department - a disconnect started to emerge between the existing frame guiding decision-making in the firm and a growing voice within industry and the public saying that climate change posed a significant and actionable risk to society, the economy and insurance companies, in particular.

In addition, and soon after, another crisis emerged on the public stage. By the time of the global financial collapse and bailout of insurance giant AIG in 2008, public sentiment regarding the financial services industry had taken a negative turn. The crisis was seen to have revealed a number of apparent failures and weaknesses in the governance and risk management

practices of the sector globally. Although SunSure was relatively protected from the most significant and direct impacts of the crisis, managers at the firm were also well aware of the issues being directed at sector practices more broadly by the public, media, experts and regulators alike. According to the discourse at the time, the events of the crash and the lack of effective controls around assessing and addressing interconnected risks presented a latent, yet meaningful threat to all kinds of businesses, as well as the economy as a whole.

### ***2.2.1 Leveraging the financial crisis internally***

By raising questions in the industry and company about organizational vulnerability to hidden threats, the events of the crisis offered an opportunity structure that interested managers like Nellie (hereafter ‘signifying agents’ or simply, ‘agents’) within SunSure were able to harness internally and *leverage* for their own purposes. When the opportunity took shape within the organization, it came in the form of a review exercise - a scenario analysis involving members of the strategy team in design and delivery - yet one that was initiated by senior management as a means of reevaluating the firm’s priorities and practices in a post-crisis reality. Based on a similar experience conducted some years before (which they called ‘Project 2010’), Nellie and her then boss believed that the scenarios process would generate valuable internal dialogue regarding the state of the organization, help to identify future challenges, and renew the strategic direction of the firm.

As it were, the scenarios exercise also offered signifying agents a valuable opportunity to shape the ideas and interpretations underpinning future strategy for the firm, including its relationship with features of the external environment, or broader organizational context. Despite a sense among leadership that the organization was dynamic and responsive to external changes, this was not the way Nellie saw things. Rather, her hope was that the scenarios would help to “keep the organization asking questions about what it is and what it does” (SA SS1.1) and encourage a culture of greater awareness and responsiveness to the outside world.

This was important because of the often- monolithic interpretation of SunSure Nellie saw among some colleagues, one that thought “we’ve never made an underwriting loss, ever, in 96 years, [so] why change? We are doing so well!” (SA SS1.1). Yet what the financial crisis revealed was that many of the assumptions and outcomes originally deemed central to members’ and leaders’ conceptualization of SunSure were no longer viable. For instance, there were a number of changes in firm size, coverage and industry position that were not well reflected in the organization’s current and supposedly dynamic organizational plans and practices. As a result, Nellie and others in the strategy team felt that both SunSure and the world around it had changed, and that organizational members were no longer able to reconcile these changes within the context of existing interpretive frames.

I can remember quite clearly seeing the news [of the financial crisis] and thinking, ‘Wow, our 2010 scenarios aren’t valid any more’. I mean, I can remember... I thought [at the time] that all our assumptions are out of the water now, best to do another scenario exercise. (SA SS1.1).

To further leverage this opportunity for influence, the strategy team and the external consultant involved in the prior scenario building exercise adapted the method and inputs to be used this time around. The intention was to facilitate a more relational view of the firm and broader scope of interpretation during the exercise. To achieve this, the team conducted research on key social, environmental and governance issues to be tabled as possible future risks or opportunities for the firm. Also, in addition to tailoring the scope of information that would form part of the scenarios, the team also selected and gathered inputs from a broad group of stakeholders and prepared briefs as inputs to the meeting:

We did a broad, proper scan. We went and interviewed lots and lots of different people, it was a classic, really well-executed scenario exercise and in the end, we came up with what I now know is called a cybernetic model around what are the variables that will be shaping our future. (SA SS1.1)

According to one employee involved, the “future shaping forces” that resulted from the scenario planning exercise were different because they went well beyond the “the traditional... usual suspects” of markets and competitors that SunSure members would typically consider in strategic planning (EMP SS2.2).

In this way, the meeting had the desired effect; the inputs, method and resulting discussion helped scenario participants to focus their attention and see the issues surfaced at the meeting as relevant. It also helped them to break with current interpretations and seed new versions of the organization's future that incorporated dynamics from the broader organizational environment. According to one employee's account of the exercise, "the top issue was climate change" (EMP SS2.2) followed by global economic recovery, crime and unemployment, government efficacy and changes in investor sentiment. Yet, despite the incorporation of multiple and independent inputs, as well as participants' own involvement in constructing and further developing the scenarios, the group was still surprised at the dominance of environmental, social and governance issues (ESG) over those that dictated the firm's priorities in the past. The reaction was also shared and remarked on by those involved in leading the process, and the Manager of Environmental Scanning, whose job it was to "be in-tune with what is happening inside the organization as much as outside, so that I can find the link between the two" (EMP SS2.2). Nellie recalled (SA SS1.1):

We weren't expecting that! We were expecting [all] economic things and what came out when we went out and interviewed people is, 'Oh my word, it's actually environmental, social and governance issues that's driving this!' It's not economic growth, it's not the interest rate, it's not inflation. Yes, they're there too, but the other things are actually more important.

### ***2.2.2 Soliciting internally and externally for opportunities to convene***

Buoyed by the advancement of climate change in the scenarios exercise, the next step for Nellie was, according to another agent, to establish specific fit-for-purpose opportunities aimed at "changing people's mind-sets, frame of mind, internally... and externally" (SA SS1.6). These new opportunity structures would be used for the purposes of *soliciting* multiple actors and in so doing, broadening the reach of and support for signification work. This involved recruiting what one interviewee referred to as additional internal "awareness agents" (EMP SS.2.2), but also for a wider group of influencers to assist with the discovery and deepening of issue meaning relative to the firm and industry.

*Soliciting Support Internally.* Nellie and a colleague from the strategy department established what they called ‘the Environmental Forum’ for initially ten and eventually eighteen members of senior management and other “key managers who were either interested or impacted by climate change” (EMP SS2.6). The group met in a standing quarterly session and over a few years and according to one member, worked through the steps of “unpacking what was the issue, and how we were going to tackle it and [then] breaking it down into certain milestones” (EMP SS2.2). By involving members from a range of functions inside the firm, Nellie not only added additional agents who would also learn and assist issue advancement efforts, but also ensure that these extended across both “market and non-market portfolios” (SA SS1.3) in the organization.

In addition, the forum also helped to create an additional layer of influencers within the organization that would “foster dialogue” (SS Docs) and help to facilitate a broader reach for the smaller group of active signifying agents within the organization. According to interviewees, the work of the forum “certainly changed the way people saw things, and [how they] did things” (EMP SA SS2.2) when it came to climate change, and later, ESG issues. It was the first time, according to one agent, that a broad group of people within the organization began to look “externally at the ESG influences *impacting on us*” rather than those which “sat squarely at the doorstep of the organization” such as regulation to protect consumers from impacts originating from firm activities (SA SS1.6). It was also an opportunity to pivot to learning opportunities and the need to foster dialogue beyond the organization itself:

When Nellie came into the equation, because of her experience with environmental scanning, this whole issue around climate impact was becoming a big issue and, just as we had many floods, they were also happening overseas, and people were knocking at our doors... then [she] basically said, well, let's take this one step forward and start looking at it externally now (SA SS1.6).

*Soliciting Support Externally.* At this time (2009) agents were aware that one of the most important global climate policy events at the time was taking place in Copenhagen later that

year. Media attention would be significant and the discourse around negotiations and climate impacts would create another opportunity to reinforce the need for action in SunSure. Looking back, one agent recalled, “Timing is everything. 2009 was a great year. Copenhagen was [happening] - so we saw the gap and we ran with that gap” (SA SS1.1).

The team decided to organize what they called the ‘EcoPathway’ conference to “claim the space” around climate change and insurance and create an “opportunity that we could capitalize on” to invite feedback on their emerging ideas from external actors (EMP SS2.2). More specifically, the EcoPathway conference offered a way for agents to engage issue activists outside the organization in a way that could directly inform the content and scope of their re-framing. It was, according to Nellie, SunSure’s way of saying “Hello world, we don’t understand this [issue of climate change]. Can people come and help us understand it?” (SA SS1.1).

The event achieved much of what the agents intended. Firstly, by hosting a conference aimed at enhancing participants’ “understanding of climate change, the need for resilience and role of business” (SS Docs), it helped to create a position for SunSure as an interested and active member of the emerging issue field. It also helped to reinforce agents’ framing of climate change as relevant and significant to the business among participating organizational members and the public. Finally, the dialogue and interaction at the conference also offered an assemblage of concepts and new terminology from which agents could draw from in their framing activities. Signifying agents then imported this language back into the internal environmental forum for instance, finding that once agents used different terminology in communication with forum members and “hit on” the concept of “systemic risk... the thing shifted” (SA SS1.1). While external actors and participants in the conference had employed the language of “systemic risk” to refer to social-ecological systems and the risks within them, it was also a known term in the financial industry and used in the past to refer to the increasing connectedness of the global financial system. It was hence, “more relatable” to underwriters (Employee SS2.3). Around this time, members didn’t only “start to use the same words”

(Employee SS2.2) to relay their view of climate change as a novel, ‘systemic’ and strategic challenge, but also to consider what these new ideas meant for their own work. One outcome was the change in scope and name for the internal forum, which shifted from a focus on climate-related issues as simply environmental challenges, to an understanding that saw extreme events as also a social and governance challenge, or ‘systemic risk’ (SS Docs). For SunSure’s head of Enterprise Risk Management, considering systemic risk meant a change from assessing relatively discrete, predictable and controllable risks, to thinking about all of the factors and potential implications of climate change relative to the firm’s objectives:

So, when you [are looking at] strategic risk... what is going to prevent us from achieving our goals? We cannot look at it in a linear way, although people do. And that is the challenge... And that is why we do scenario work and other stuff, is to try and to bring the systems thinking [to say] ... okay, there is one issue, but it has got a lot of different feeders and impacts... Before I had any introduction to systems thinking or any of that, it was very linear, very, okay, this is our list of risks, very theoretical. But this [the idea of systemic risk] has brought about why you cannot do it [that way]. It has changed how I think about my work (Employee SS 2.3).

### 2.3 STAGE 2: EXPERIMENTATION

Once the issue of climate change reached a point of acceptance within SunSure and it “wasn’t so weird anymore” (SA SS1.1), signifying agents moved on to the next stage of issue advancement. In the **experimentation** stage, they began involving allies more substantively in the authorship of the change effort, including through the shared development of additional opportunity structures for framing. This involved **exploring** provisional ideas about an issue diagnosis and renewed frame with external actors; **situating** this diagnosis within a particular ‘place’ or social-ecological context, and; **coalescing** influences and interpretations around a prognosis reflective of the organization and the people and places around it with an interest in the issue.

One of the challenges facing agents at this time was that although a common ground had been reached among key actors internally at SunSure about framing climate change as a

strategic organizational risk, current practices being used within the firm were too narrow in scope to incorporate new interpretations, particularly in risk assessment, which lay at the centre of how SunSure did business and generated a profit. While agents and allies saw the limitations of existing assessment practices, they were unable to produce the relevant data or demonstrate “how to be better able to select risk” (EMP SS2.6). Also, according to one agent, they “realized they couldn’t do this [find or develop appropriate data and revise practices] on their own... because we don’t have the research expertise and we don’t have a wide enough scope” to consider new features or dynamics in risk assessment (SA SS1.6). Hence, they decided that they needed to go “partnershopping” particularly among actors active in the climate change field and with capabilities in what some technical staff called “the buzzword of GIS” or Geographic Information Systems (EMP SS1.9).

### ***2.3.1 Exploring new issue interpretations with partners to test framing***

Agents knew from their scanning and engagement in the issue field that geographic location was important to understanding climate impacts, but also that there were a number of questions related to the nature, use and integration of geographic data that hadn’t yet been answered in the industry. Hence, the next step was to find a way to begin *exploring* the use of physical data in understanding the issue of climate change, together with actors who could assist in challenging the status quo. For Nellie, this was about being a “a free-range chicken” and seeking out others, “even scientists,” that were “willing to get out of the pen” rather than then act as organizational “battery chickens” (SA SS1.1). Unlike conventional fee-for-service consultancies that SunSure had used in the past, this approach emphasized “co-creation” (SA SS1.2), learning, and discovery between SunSure employees and external actors by asking “we’re in this mess together... so, how do we work together to figure out the way forward?” (SA SS 1.1).

Together with representatives of two environmental organizations who had participated in the EcoPathway conference, agents created the opportunity they needed - a pilot project that would provide a detailed issue diagnosis and the information necessary to revise how the firm

approaches risk assessment, a core practice in detailing business products and services. Their shared aim was to develop “a different way of thinking about risk” (SS Docs) that all partners could adopt and adapt for their own practical and strategic purposes in the future. For the SunSure executive overseeing the project and present at the first meeting, this meant giving explicit attention to defining precisely “what risk means” in the context of the project site, called ‘Erie’ (SS Docs). In so doing, the intention was for the project and case study evidence to test and deepen the conceptualization of risk already being advanced by within the forum at SunSure, as well as to facilitate the endorsement and extension of this renewed frame and the associated prognosis of “better rating” at the highest levels of the organization (SA SS 1.1).

In an attempt to address the Executive’s question, one researcher suggested that SunSure’s understanding of risk would need to incorporate the organization’s social and ecological interdependencies within the project site. She and colleagues explained that “SunSure’s resilience” was dependent on a “systemic view” as well as “resilience in the risk landscape” (SS Docs). According to this view, SunSure’s interests and risk assessment activities could no longer be isolated from the other physical and social dynamics occurring outside and around the company. Recalling these events, one team member described how they came to understand the ‘systemic view’ of climate change as more than a “single environmental issue” and instead a connected set of social and ecological factors informed by the landscape of the pilot:

The fact [is] that when we brought in people like Clint and Leon, even when they presented their proposals, it was clear that we couldn’t just look at it from a single environmental angle. So, when you look at a landscape, then there are municipalities, there are people, there are ecosystems... and an interplay between them (EMP SS2.2).

### ***2.3.2 Situating framing within a material reality***

While SunSure members agreed in principle with the idea of resilience and the plan to develop a systemic view of the multiple factors driving SunSure’s risk through the pilot project

described by the researcher, these ideas became significantly less abstract and more meaningful as work on the pilot began. This was facilitated in large part by the additional and distinct signification opportunities offered by *situating* the team's interpretation of the issue within the context of a specific physical and empirical reality. The first way in which this situated understanding was realized was through the efforts of partners to illustrate and explain how specific landscape features and dynamics could affect the manifestation of extreme weather events and SunSure's interests in the project site, Erie:

It came out of the science model. We had a whole bunch of scientists doing detailed models. We had a fire model, we had a storm surge model, there was a flood risk model, so there was real detail; CTR had the experts; the guys who did the storm surge model – that's what they do for a living. They look at the coastline and what sand mining does to the wave run-up. If you put that together with insurance, you quickly realize that if you insure the houses over there and people keep removing the foredunes to have a better view, it's like a no-brainer, the water just comes in and goes *kawoosh* (SA SS1.2).

Secondly, in addition to the visual and scientific depiction of social-ecological dynamics by researchers involved in the project, these material processes and characteristics were also experienced directly by team members in the field – for instance in the form of powerful storms during site visits, visual cues (e.g. the sight of erosion), or the mediated experiences of stakeholders (e.g. stories regarding extreme events). One particularly vivid example came when I attended a field trip with three members of the project team. While part of the field trip involved speaking to local stakeholders of SunSure (e.g. clients, brokers) about the past impacts of extreme events, the better part of two days was spent driving around the region with the organization's Technical Risk Specialist identifying visual and material cues in, or 'reading' the landscape. This involved locating key insurable assets such as buildings and infrastructure relative to landscape features such as nearby forests, waterways or the sea, which could be impacted and draw losses for SunSure in the case of major extreme events. It also involved tracing material evidence of processes that could exacerbate the impact of extreme events, for instance in the case of sand-blocked waterways, built-up forest brush, floodplains or high gradient roads leading into the sea. Throughout, the Specialist

continuously asked me, “Kristy, what do you see?” and followed with a discussion of how these features contributed to risk of nearby houses or properties.

These encounters and events with the social-ecological impacts of climate change helped to further anchor issue framing in personal experience and add additional resonance to a renewed framing by those involved. More specifically, it also changed SunSure’s view of risk as a function of ‘place’ or geographic context within a broader (social and ecological) system rather than simply a location or address. According to this renewed understanding and diagnosis, the emerging prognosis advanced by agents was for the organization to move towards “systemic risk analysis”:

Primary insurance is that you rate the assets, you rate the house, what is the house’s exposure to security risks; but if the house’s flood exposure is actually 500km up in the mountains... it doesn’t help [if you are] rating the house... That’s the big thing that came from Erie. We say that risk analysis on its own is not enough. We need systemic risk analysis (SA SS1.2).

The identification of bio-geographic drivers of risk (e.g. erosion of natural flood barriers) promised the kind of information enhancements to SunSure’s existing underwriting practices that were expected by senior members at the firm. However, the project findings strongly warned against a response dependent on such information for prediction and to limit insurance coverage in the landscape, for instance by redlining. Instead, the final report indicated that more information would not necessarily lead to improved probability models on which to confidently assess place-based risk and determine exclusionary measures for particular properties, saying: “our findings warn of the limitations of a strategy that is solely reliant on ever-finer scale risk assessment with the aim of accurate risk differentiation and pricing” (SS Docs). In short, the models were focused on identifying typical patterns in coupled social and ecological systems, identifying drivers of risk and resilience in the landscape as opposed to isolating one particular feature of that landscape.

The challenge that this finding presented was that, by adopting a systems-view of risk assessment, the basic assumptions of stability and predictability that underpinned standard

risk assessment practices in SunSure could no longer be met, making even new and fine-grained geographic data an ill-fit with existing actuarial models. While underwriters hoped for an information advantage over competitor assessment methods, the challenge remained that “when you set up your pricing models, you only have historic information, so you cannot... [effectively determine] when to change your rates (EMP SS2.6). In addition, “if you write that risk of a house sitting on a one in ten-year floodplain...but other companies don’t have that information...they will price it more flatly and you are never going to get that business” potentially inhibiting the short-term competitiveness of the firm (EMP SS2.6).

Furthermore, the pilot demonstrated that any future action by SunSure aimed at avoiding climate-related risks based on enhanced data, such as through the reduction of insurance coverage in key areas, could also lead to limited continued growth and loss of market share:

If you get these floods coming every four years, what it means is you have to cancel people’s cover [due to high cost of risk]... You don’t want to let go of your clients, because where will you find the other clients? We are already so big. If we don’t improve the level of risk of our client base, where are we going to grow? Who will we underwrite? (SA SS 1.2)

Thus, while the notion of “systemic risk analysis” and obtaining a “better understanding of what drives risk in a changing system” (SA SS1.2) were discoveries consistent with the provisional framing agents had hoped to experiment with, it still presented numerous challenges for issue prognosis and firm action. In particular, it presented SunSure with a diagnosis that, if actioned using existing practices, might result in “conflicting strategic goals [in terms of] growth versus profit” (EMP SS2.6). While better profits could result from better information and more sophisticated risk analyses, it could also lead to reduced market share. That is, the incorporation of improved information could lead to higher prices, or a smaller base of consumers that were within the organizations ‘risk appetite’, potentially benefitting the competition in the short term. There was also a more immediate challenge, which was that SunSure was operating within “very constrained by legacy systems” where the incorporation of social, geographic and environmental data was not yet feasible (EMP SS2.6).

### **2.3.3 Coalescing around a prognostic framing of the issue and firm with partners**

Although prior steps in the experimenting stage had helped to deepen agents' understanding and diagnosis of the issue, a more coherent framing and prognosis was ultimately achieved by *coalescing* to a consolidated and shared interpretation through interaction with the broader team of partners. For Nellie, this meant “only concluding at the end” of the project and abandoning any predetermined conclusions about where they would arrive with their prognosis, including those based on the prior firm framing of improved predictability and control (SA SS1.2). In order to reach a good fit between their diagnosis and a potential prognosis, agents planned a weekend retreat with representatives from each partner organization. In order to reach a shared perspective, the team had to “really spend time on it...fighting a lot... and [working to] figure things out” (SA SS1.2). In the retreat, the opportunity agents and partners had created for reflection paid off - the team walked away from the retreat feeling empowered and excited, saying “wow, this is something we can do things with!” (SA SS1.1).

What they discovered was that the key to unlocking their challenge lay in the “explanatory power” over the “predictive power” of the project models and research (SS Docs). Instead of “chopping up” and assessing each individual local risk driver and extreme event type (e.g. flood, fire sea storm) and obtaining data for rating refinement, they “looked for patterns” (SA SS1.1) or those factors with a disproportionate impact on the functioning and resilience of the local system as a whole that could also be “key game-changers” in other landscapes that the firm was operating in (SA SS1.6). In particular, the pilot showed how certain non-climatic drivers of local vulnerability, such as improved landscape management could potentially “offset most of the increased risk associated with climate change” in the Erie landscape (SS Docs). Among these, the most significant concerned the effectiveness of local government and ecosystem service delivery in the landscape. Put simply by one of the agents involved, “Erie showed us that your biggest losses happen within [the systems overseen by] municipal districts” (SA SS1.5). Ultimately, the project findings demanded that SunSure shift their practices to involve “proactive risk management aimed at systemic drivers of risk that are

within its potential realm of influence” (SS Docs). Hence SunSure’s response to the issue of climate change wasn’t aimed at internal action, or even activities within SunSure’s control, but the “engagement of stakeholders and local government” to mitigate shared risks (SA SS1.5). Here’s how two agents put it:

If am in Erie and I own a house, there is very little I can do about the carbon footprint of the country, but I can control whether I remove the foredune on the beach in front of the house, and that has much more impact on the flood risk and storm surge risk due to climate change (SA SS1.2).

And I think the discovery has sort of emerged that the greatest value would be achieved if we reduced our losses. It's not new business generation or [more market share, or profit] but it is a reduction of the losses that we incur. And it's very, it's completely new thinking...Before [our work in] Erie... there was never any ‘bring them here [let’s understand the risks we share with external actors]’...it was reactive... In the past, we never really considered government to be a stakeholder... Government must govern and we will run our business. However, the effects of climate change, the assets that we underwrite sit mostly in local government. So it makes sense that if municipalities are not in a position to ensure that the services are such that they can reduce or mitigate the impact of catastrophic events...[that is where action is required and] we thought ‘hold on’...let’s go to that (SA SS1.5).”

Looking back on SunSure’s original frame, when “the organization [was] geared towards what goes on inside” and “science [was] irrelevant to insurance” (SA SS1.1), agents felt they had reached a profound turning point in their framing and issue advancement efforts. This sense was also shared by other SunSure employees involved in the pilot, including another member of the strategy team:

Although some of these conversations started earlier in the forum and in the EcoPathway conference, in some ways it [the experience in Erie] almost seemed to kind of flip things... it brought together what [agents and others] were saying and it’s like ‘okay, now we get what this means for the company’ (EMP SS2.2).

By coalescing around a validated diagnosis and prognosis with partners, agents had advanced new thinking about the issue which reflected the interdependencies of different social and material factors in a landscape and outlined a framing which accounted not only for the interests of the firm, but also those of municipalities and residents in Erie. This framing not

only responded to the question of how SunSure could “actually manage climate risk in a broader landscape” and do so based on “good science” (SA SS1.1) but also provide the foundation of how the organization could take up a “new way of understanding stakeholders... to see them not as having to do with markets and political security, but to do with shared risk mitigation” (SA SS2.8).

## 2.4 STAGE 3: ENACTMENT

In the final stage of issue advancement, agents’ efforts focused on **enacting** a renewed frame within SunSure to help transform organizational members’ view of the world around them and have their issue response integrated into the firm’s policies and practices. While changing the firm itself remained the primary target, agents continued to seek out opportunities for issue advancement in the industry and field. This stage thus involved both **elevating** their experience and framing beyond the firm to reinforce the significance of their message and influence and finally, **installing** these ideas within the firm and its overarching frame.

### 2.4.1 *Elevating interpretations and influence to the issue field*

Upon completion of the pilot, signifying agents again set their sights on the issue field, *elevating* their ‘proof of concept’ framing and findings among other interested actors externally so as to share their understanding of the problem and solution and influence SunSure from the outside. Because their expanded framing emphasized a cooperative rather than competitive approach, continued meaning-making and the resonance of SunSure’s diagnosis and prognosis outside the firm was important. They wanted others in the industry and issue field to replicate and extend their enactment because they didn’t “want to be the only one in the market, so they want to bring the market with them” (EX SS2.1).

The first opportunity created for this purpose was linked to SunSure’s invitation at the time to join a new United Nations-aligned global coalition of insurers interested in ESG issues. In the 2011 global climate policy conference where the coalition had policy engagement

interests, agents found the “perfect platform for external exposure... and to articulate [next steps]” in SunSure’s issue advancement and enactment (SA SS1.6). Among the different events planned by agents, the most important of these was an invite-only proof of concept launch of their findings and dialogue aimed at forging relations with government to collaborate on “better climate risk adaptation” (SS Docs). They also sought to support the broader coalition in their efforts to “influence the debate and decision-making on climate change” with one agent commenting in the media that what was once “an emotional debate is now a common sense-approach to business” (SS Docs).

Their approach proved successful as SunSure initiated another round of projects externally, including through the involvement of a Senior SunSure Executive as chair to national industry association’s ESG Strategic Risk Forum, assistance drafting the coalition’s global principles for member organizations, and participation and guidance to a wide range of additional and related initiatives within the coalition and issue field. Describing the motivation and decisions behind these activities, Nellie said:

I can remember having discussions with the [CEO]... and the conclusion was we can’t do it alone. That is why we lobbied the insurance association, which then over time set up the strategic risk forum. So if we... ask [the CEO] is this strategic, he will say yes, it is, because they need to get the municipalities working...  
The reason we drive it [in the industry] is because we are the largest... because if we start helping municipalities, others will too, which mean that more municipalities will be effective, which means that more landscapes will be better for all. So, it is about size and influence, and a certain confidence (SA SS1.2).

This confidence and role as self-appointed industry catalyst was commented on by another coalition partner, who described SunSure’s issue advancement and change efforts as unparalleled among peers and an act of “heroic leadership” in the industry (EX SS2.1). While she noted that reputational gains were part of SunSure’s motivation, she also agreed with agents’ assessment that SunSure “would lose competitive advantage if they moved forward without others behind them” (EX SS2.1).

In addition, SunSure also initiated a series of activities to implement the recommendations of the Erie project, address local drivers of risk and strengthen governance in regions vulnerable to the impacts of extreme weather events. This included developing a partnership with national government on five highest risk municipalities in the country to help mitigate the impact of extreme events when they occurred. SunSure's aim was to develop and secure long-term partnerships with local and national government and, according to one agent involved, "create a blueprint, so that we can use the same approach when we go to more municipalities (SS 1.5)." Later, SunSure added more municipalities, offered more investment and expanded out from the focus of existing partnerships to work on those focused at reducing the likelihood and potential impact of extreme events, for instance, through ecosystem restoration and improved landscape management in exposed landscapes.

#### **2.4.2 *Installing and integrating the frame in the firm***

As SunSure's public commitments to action, agreements with government and new initiatives were underway, agents had the foundation necessary to focus on *installing* the transformed frame into the fabric of the organization. The agents felt that they reached a turning point in terms of the "maturity of thinking around ESG issues" as well as "ownership" of their frame among key internal actors (e.g. department heads and executive), "addressing it even further internally" (SA SS1.6). Comparing their position in 2013 to 2008, one said, "there were a lot of gaps in our thinking [at the time], nothing like where we are now, and rightfully so, because it was all new to us...it didn't get embedded in the way that I think is happening now" (SA SS1.6).

In interviews, a number of actors, including agents themselves, commented on how consistent framing and communication over the interim period, as well as interaction beyond the organization had helped to facilitate internal integration. For instance, one of SunSure's collaborators explained what she saw as a constructive tension between having a "brand tied up with forward-thought leadership" but also wanting to "bring the market with them... [and] actually wanting all of [their] competitors to do the same thing" concerning climate

change (EX SS2.2). She was referring to SunSure’s renewed brand promise of delivering “insurance good and proper” and “doing business well in the context of the bigger picture” – a vision that, since its introduction in 2010, agents had been consistently weaving into their framing activities (SS Docs).

By 2013, SunSure agents had developed two new major policies and supporting practice frameworks which integrated the issue alongside other business imperatives. These new frameworks were endorsed by senior management for implementation, including a new group-wide organizational strategy and first attempt at an associated performance monitoring dashboard, as well as a new sustainability framework to guide implementation on sustainability aspects specifically. One of the pillars of SunSure’s new overarching business strategy was to “manage the risk pool” by “collaborating with stakeholders on shared risk management” (SS Docs).

When I met with the group of signifying agents over 2013 and 2014, the firm frame had shifted and the team was hearing “testimony of how the organization had evolved” from key internal actors such as department heads and executives, who had supported and committed the organization to major and lasting changes in policy and practice (SA SS1.6). Among others, this included some years of work by the Head of Risk Services to “refine [the organization’s] risk management tools and underwriting” to address “increasing climate risks” (SS Docs). In this case and others, the installation of the frame (e.g. into departmental objectives or policies) had reached a point it was occurring without prompting, as described by an internal ally:

So three years later [after the Erie project], someone is doing it...and they think they have done it by themselves, which is good...so no one says, ‘Well, we’re not getting the credit’ because that’s how awareness agents work... (EMP SS2.2)

## 2.5 SUNSURE'S EXPANDED FRAME

Across both individual departments and the broader organization, the issue advancement efforts of agents had transformed framing to one that positioned the objectives of the firm within the context of a broader set of externally occurring social and environmental dynamics. It also changed the firm's perspective on stakeholders, where they were now "working with entities that we normally, traditionally never worked with, which is municipalities" (SS SA1.5). This new perspective on what constituted the firm's **salient context and stakeholders** became an important feature of the expanded framing and purpose of the business, or as they put it, "what we do" as well as dashboard for monitoring organizational activities (SS Docs). Their broad **organizational objective** had also changed. Instead of a narrow focus on pooling risk and competitive leadership to the exclusion of peers, SunSure had expanded their vision to "support the sustainability of our industry" pursue opportunities for "proactive risk management" and influence other actors in the integration of ESG so as to "build a more resilient world through the provision of risk solutions" (SS Docs). In terms of **practices**, while SunSure still depended on actuarial models for much of their business, they had also established new approaches, policies and portfolios with stakeholder engagement and collaboration at their core:

I think it is dawning now, there needs to be sort of a dual approach. You know, we need to protect SunSure's book and risks. But at the same time, we need to work with others to better the risk environment (SA SS 1.5).

## 3.0 SUPPLEMENTARY CASE STUDY 1: WOODSTONES RETAIL

### 3.1 WOODSTONES' EXISTING FRAME

Before signifying agents at Woodstones began to think about significant social-ecological challenges facing the food industry, the company's primary frame and main focus was on the bottom line and maximizing profitability. In the early to mid-2000s the company had seen significant growth and profitability, especially on the foods side of the business, whose profits had multiplied several-fold in less than a decade. It was according to an employee working in

foods at the time “a blast” to be involved in, but also “all about... profit and margin and all that” (EX WS1.2). This drive towards growth and greater profit was core to Woodstone’s overarching business **objective** including in the foods side of the business, where the emphasis was on achieving “the best quality... at the lowest prices” (SA WS2.3). The **salient context and stakeholders** for meeting this goal included a growing consumer base and market and close relationships with their suppliers. Woodstones’ **practices** involved sourcing “where possible from South Africa” and “being actively involved with the local supplier base” primarily by providing advice to farmers to maximize yields and productivity (WS Docs). Looking back one agent described this as a policy of “increasing inputs to farms, [artificially maintaining] low prices... [and] trucking stuff all over the country... it wasn’t sustainable” (SA WS1.2).

### 3.2 STAGE 1: INTRODUCTION AND DISRUPTION

As in the case of SunSure, the process of change in Woodstones began when three managers within the foods side of the business took an interest in ecosystem wellbeing and sought to **introduce** this issue into the firm, including by **disrupting** the existing frame. In this case however, signifying agents began the staging process ‘closer to home’ and ‘unofficially’, focusing on an initiative that had already captured the CEO’s attention yet that agents felt was too narrow in scope and limited potential impact in terms of ecosystem wellbeing. In the first stage of issue advancement, agents sought to **leverage** the existing opportunity presented by the initiative, and **solicit** others towards a better understanding and assessment of the issue relative to firm objectives.

#### *Background*

When Woodstones appointed a new CEO in 2000, he came with a good understanding of the industry internationally as well as insider knowledge of the business developed over two decades in senior management for the firm. One of the new CEO’s major accomplishments prior to his appointment related to the growth of the foods business, and as part of this, the design and initiation of what he called the Positive Food Plan (PFP). The plan was not only reflective of a trend in marketing at the time, but also a personal interest that he had in the

natural world and the promotion of healthy lifestyles. The idea for the PFP came after he and the then Director of Marketing visited an early Whole Foods store in San Francisco, where the future CEO saw something special in their focus on “delicious food, new food varieties and... something more holistic... with less pesticides” and realized, “we thought we could [focus on] where does your food come from and how good is it?” (EX WS2.8).”

Although the PFP was an important differentiator for Woodstones, its ambitions and impact in the market and business remained relatively static for several years. For one long-term employee named Tim who had worked as a colleague and then served some years as Sustainability Manager under the CEO’s leadership, the promise of broader societal impact and a new approach to issues beyond the firm had become the object of frustration, rather than stimulation. Tim complained that the spirit and drive behind the genesis of the PFP had been lost to what had essentially become a marketing scheme. He argued that while “it was fashionable to write sustainability reports and the business enjoyed that... it wasn’t fashionable to do the work that went with it” (SA WS1.1). Thus, rather than dedicate his time to the mundane task of “just measuring and reporting,” as a former colleague from Woodstones later described it (EX WS1.2) or “an exercise in reporting for reporting sake” as another former colleague did (WS Docs), Tim decided to shift into another role with the company.

### ***3.2.1 Leveraging leadership internal interests and actors***

By 2007, Tim was in the Foods department and saw a new opportunity to *leverage* shifting internal sentiment towards more ambitious change. After Tim, a self-described “oddball” and “terrorist” had taken the opportunity to challenge the CEO on the firm’s lost momentum and “significance” on environmental issues in an informal chat one day, he “suddenly became the green guy again” (SA WS1.1). It so happened that the CEO had “started to think about the same thing” (EX WS 2.8) and soon after, invited Tim to join a series of meetings with the board, senior management and business unit heads to discuss environmental programming at the

firm (SA WS1.1). According to John, a friend and colleague of Tim who was Head of Technology in the Foods department at the time, the CEO came to them both and, referencing some of their past achievements in animal welfare and the extension of PFP, said, “This whole green business, I want it to be part of the entire business” (EX WS1.2). After several months of intense development, the Positive Business Plan (PBP) was announced, and set out dozens of targets requiring “significant behavioral and cultural change” to “ensure a virtuous circle of sustainable economic growth” for future generations (WS Docs).

When the CEO announced the PFP in 2007, he described Woodstones’ motivation accordingly:

It is becoming increasingly obvious that sustainable growth can only be achieved through paying greater attention to the world around us than has been the case in the past. The links between economic growth, transformation, poverty alleviation, the environment and climate change can either form a vicious or a virtuous circle. (WS Docs).

For John, Tim and Kodi, another colleague from foods, the PBP was the “pivot” (EX WS1.2) they had been looking for to make an impact on “the big problems in the world” and explore “how these three individuals... could make the business see things differently” (SA WS1.1). As a group of signifying agents, they shared in the belief that “so many things were wrong” in the environment beyond the firm’s direct operations which put the agricultural products that Woodstones depended on at risk (SA WS2.3). Going back to the principles behind the ‘virtuous circle’ and the view that their products “connect with so many things” the agents began to “overlay those interests with what the products are and saw the touch points” with broader social and ecological issues (SA WS1.2). Although they discussed a number of environmental issues such as water, biodiversity and climate that were related to the PBP, it was the issue of soil health that took center stage in their deliberations because according to Kodi “that’s the one... that looks at the interrelationships between all [social, environmental and economic] aspects” (SA WS2.3). According to Tim, soil health as a foundational element of ecosystem sustainability had been an issue that Kodi had been thinking about for some time:

So he [currently] works in the produce department [but] was born and worked on a farm; [Before Woodstones] he became a fertilizer salesman and knew why and then that the stuff he sold was bad, but it was also good. He tried to sell to people a lot of fertilizer because that made money, but they didn't really need it. But he also saw the consequences of selling them too much - the soil becomes toxic and then things won't grow. So that was his angle.

### **3.2.2 *Soliciting support towards an initial issue diagnosis***

John agreed with Kodi on the impacts of industrial agriculture and the team decided to start quietly creating opportunities to *solicit* others with the aim of gathering feedback on their ideas regarding the issue of soil health. Although John also had a background in agricultural sciences and “always knew that [the region] had marginal soils” he still wondered “what does that mean?” in terms of short and long-term impact of food production (EX WS1.2). As a next step, the group sought out some advice from others. John's first approached his “friends in research” who, he said:

... started alerting me to some of the stuff happening out there. And I started opening my ears... and they showed me some stunning photographs, and I realized, hang on, the whole scientific basis for farming is shifting. There are other elements here... We've messed up our soils with industrial farming, more than 50% of all fertilizers are salts... [that] get dumped into the soil. Our water is becoming more saline, especially under drought conditions, and this is not good... (EX WS 1.2)

They also solicited insights from NatureFed and EcoLife, two non-governmental organizations they had worked with in the past, as well as others who could help them better understand the implications and impacts of degraded soils and what could be done about it. Tim described their experience trying to shift towards a more detailed understanding of soil health in Woodstones supply chains with experts:

We interviewed a whole lot of experts and we said to them ‘How would you go about making farming more sustainable in South Africa?’ And each one of them said ‘We would look at all the businesses that produce a particular crop and we would analyze them in depth, and then we would compare them one to the other and create a

standard across the business’. That seemed perfectly logical, but we didn’t like it. We were uncomfortable with that, because that would be the lowest common denominator approach (SA WS1.1).

Because the team also had experience with organic certification via the PFP and PBP, they were also intent on differentiating their aims from that of the prescriptive and limited approach of the organic certification system. Rather, they realized, “it wasn’t about a formula or a recipe, but about a philosophy... about a value choice” (EX WS1.2). While they believed that the science would prove the principle they adopted for their diagnosis – that effective soil management would provide the long-term foundation for reduced risk to Woodstones and improved resilience in agricultural areas – they felt that doing so would take time and they didn’t want to wait to take action. Instead of “waiting for the jury” of “after-the-fact” science, the team had obtained sufficient support for their basic understanding of the challenge in consultations and decided to push forward with an approach that was based on “more of an activist role with sound scientific principles behind it”(EX 1.2). This involved experimenting with different management methods to see what impact it had on improvements to soil health.

### 3.3 STAGE 2: EXPERIMENTATION

Given prior experience attempting to implement new ideas and programs in Woodstones and general reinforcement in their external consultation, the team of signifying agents at Woodstones reached the **experimentation** stage of their issue advancement efforts relatively quickly. In this stage, the agents began **exploring** their diagnosis and initial prognosis in an area they felt would be impactful and with collaborators that would help guide them towards an informed and practical prognosis. In their interactions with collaborators and partners, the agents also found that **situating** the issue response within the realities of a local area, as well as **coalescing** their experiences with partners into actions also went a long way to catalyzing a stronger understanding of the interdependencies between the issue and firm.

### **3.3.1 Exploring issue meaning with trusted external actors**

In keeping with their idea of working as something akin to ‘activists’ inside Woodstones, signifying agents decided to begin *exploring* the terrain they knew best. In the area of fresh produce, the team not only had existing and positive relationships with farmers, but also the influence to safely explore their ideas as well as make a potentially meaningful impact in a landscape and around an issue they were all passionate about. Tim put it this way in an interview:

So Kodi, myself and John sat together, and we worked out the area where we had the most power as retailers, our direct suppliers is the area where we’re the biggest, we’re far bigger than we should be if you compare us [with competitors] we’ve got a much bigger footprint in fresh produce than any of the others. So, we picked produce as a first target area (SA WS 1.1).

Because of the “day-to-day pressures on price, margin and availability” emphasized by Woodstones’ existing frame and the associated performance-targeting practices the team was “scared about” pursuing their ideas through official channels and being asked to “attach an economic value” to their work early in the process (EX WS1.2). Hence when they decided to approach fourteen of Woodstones’ top suppliers with the idea of conducting pilots, they decided to do so very much “in the background” (EX WS1.2). They also chose to work with those that they considered “family” so much so that “divorce was not an option” and that if their experiment failed, it was unlikely to result in major fallouts to key relationships or product lines (SA WS2.3). Because Woodstones had “been married for over thirty years” (SA WS2.3) to these farmers, the agents also felt they could expect a sense of interdependence and shared interest in success from their exploration.

The pilots were carried out over a few years and involved asking farmers to “use more old-school techniques, like composting; things that your grandparents did” (SA WS1.8). A major aspect of this was about cutting inputs and particularly fertilizer, but also water and other chemicals. Although farmers would have the assistance of technologists and other internal staff members, agents said they didn’t initially “have much of a plan” but rather a broad

“policy that you need to be hands on... and look at nature to tell you what is going on” (SA WS1.8).

### **3.3.2 *Situating their diagnosis in the landscape***

The pilots proved successful, particularly as farmers and agents started *situating* their understanding of the problem experiences and lessons within the context of the landscapes and places that they were operating in. What was powerful about this approach, as the CEO later put it, was that “you can touch the land with food” by understanding that land and the people that lived on it, much more so than for instance, textiles (EX WS2.1). This involved helping farmers shift to a “farming system that is a lot more dynamic” wherein they had to “make daily decisions” by “walking the fields” and paying attention to details in soil and plant life that they hadn’t previously (SA WS 2.3). As supply chain partners made and monitored these changes, agents at Woodstones realized that the physical and ecological character of the farms was important, “a potato farmer in [one area] can have totally different challenges than in [another], just because of the area they are farming, although it’s the same product” (SA WS1.8). Once farmers started to depend less heavily on inputs like fertilizer and pesticides and understand the connections between things like water, crops, surrounding plant communities, soil and chemicals, among others, they began to get the results they were looking for:

It took us some years to get that first real result where the farmers are telling us, ‘This is happening, this is happening and this is happening.’ What they were telling us that was happening is they were using less fertilizer... less pesticides... but that they were getting better yields (EX WS1.2)

It was now time to translate the team’s broad response principles and actions into actions that could be replicated and communicated beyond the pilots themselves. Again, signifying agents were reluctant to look internally for support with this task, particularly because they felt that food experts and technologists on staff at Woodstones were too narrowly trained to focus on aspects such as safety or quality to offer the approach they were looking for – one that accounted for the whole system instead of just the plant itself. Instead they found a group of scientists called EScience who said that although no appropriate measure existed

for soil health, they could develop a “scientific model” to be informed by a baseline assessment and driven by a comprehensive set of environmental measures (EX WS2.4).

According to the scientists, unlike the “one-size-fits-all” (SA WS1.8) farming practice standards that the agents wanted to avoid, this new approach would have a, “very specific soil, crop, and climate related approach for each farm” (SA WS2.3) and be driven by the characteristics and changing environmental conditions of a particular place over time. This would allow both the farmers and Woodstones to identify risks, prioritize actions and make decisions based on a “collaborative” and “dynamic” system that would also allow “the farmer to be compared against himself over time” and “go back in 10, 20, 30 years” to monitor and understand progress (EX WS2.4). According to the head scientist, “they must see that is a long-term thing... it’s integrated” across the farm and into the business of Woodstones itself.

### **3.3.3 Coalescing around a prognosis and provisional frame**

In 2009, Woodstones formalized the “FutureFit” program devised by agents and EScience and rolled it out to the larger group of fresh produce suppliers under Kodi’s leadership. However, it was through the involvement of another agent outside the Foods team, the recently appointed Head of the PBP, and past partner and environmental NGO NatureFed, that the team’s ideas began *coalescing* into the kind of outcomes signifying agents had been hoping for. Although NatureFed had endorsed the FutureFit system at its launch, offering valuable legitimacy from a consumer perspective, their initial involvement was relatively superficial in the nature and depth of their engagement. Looking back, this was something the agents needed to change:

Woodstones had been working with NatureFed for a while, but it wasn’t really going anywhere, because I think a lot of people in Woodstones didn’t know that they didn’t know everything, if I can put it that way... So they didn’t necessarily understand the full value that could be brought from NatureFed or from the collaboration side (SA WS 1.8).

In particular, the Head of the PBP felt that partnerships and the relationship with NatureFed were key to advancing broader societal issues within the firm and ultimately, reshaping

Woodstones' strategic frame. Referencing the FutureFit system in particular, this agent saw untapped potential in how the partnership could help to “drive innovation” and influence the ambition, scope and impact of social and ecological issue responses (SA WS1.8). He also felt this way because “the depth and breadth of [ecological] issues that they look at is so comprehensive” but also because the team spent so much time thinking about metrics and management that they weren't seeing how “working with NatureFed gives you a different space, a different conversation to see things in a different way” (SA WS1.8).

As the Woodstones team began opening up dialogue and exploring these possibilities with NatureFed, they too saw an opportunity to shift away from a “purely philanthropic arrangement to a far more strategic approach to corporate partnerships” (WS Docs). More specifically, explained an interviewee at NatureFed, their collaboration with Woodstones gave them the chance they had been looking for to “target those [activities and businesses] which we think will be able to achieve the conservation goals that we are unable to achieve on our own” (EX WS1.3).

Hence, as the scope of potential shared interest and interaction increased, the two teams began seeing that they were “coming away [from each meeting] with a little more understanding of the challenges that each of us face and solutions that are in both of our [organisations'] interests” (EX WS1.3). This wasn't only about “hearing or seeing risks [relating to food] long before we even knew about it” (SA WS2.3), but “challenging the whole programme and methodology” that underpinned FutureFit (SA1.7) to transform the team's prognosis into one that went beyond only the interests of Woodstones or its suppliers. This evolution was described by one agent and the focal point at NatureFed, who said:

EScience's job is to make sure that those farms aren't islands of good practice ... But it is our job to make sure and then to work with all of this and say, 'well, what does that look like?' Yes, it means things like managing your water systems and things like that, but it's more. It's about also then having a landscape approach, a river system, or a basin approach to say, well, you're a dairy farmer [beside] a sugar farmer neighbor, a timber lot, and, you know, what are the commonalities... how does that sugar [farmer] become a good

neighbor even though they are not a supplier or the... timber guy... we help Woodstones to become a champion in that area and to support their farmers in being champions in that area. It is incredibly ambitious but there is appetite in Woodstones and certainly there's strong support for that in our own strategy (EX WS1.3).

The fact that there is learning that is going into other supply chains, that is a good thing. The reality is that it doesn't help if you have one farm in isolation that is doing the right thing and there are three farms upstream and downstream that are doing whatever they want. There is no way he is going to preserve his land and water in isolation (SA WS1.9).

### 3.4 STAGE 3: ENACTMENT

As agents at Woodstones moved into the **enactment** stage of issue advancement, they found that **elevating** their new frame to additional actors and contexts involved emphasising their strong profile, successful relationships and the reputational advances as well as the reputation gained by the FutureFit system locally and internationally. The enactment of their renewed framing also involved **installing** the relationships, insights and practices they had identified through their issue advancement work into

#### 3.4.1 *Elevating the frame to other actors and contexts*

For agents at Woodstones who had a long history of marketing success and recognition around past initiatives, opportunities to continue *elevating* lessons from the FutureFit program and their experiences with soil health in industry and issue field were relatively easy to construct and access. Agents actively worked to promote their advances in numerous media, industry and issue field outlets. These events not only served to help influence others in the issue field, but also to compare their advances on this issue against other retailers. After attending a number of events focusing on improved farming practices over the years, one agent commented that “nobody in the world has got the... system, standards or advisory

backing like Woodstones farmers, nobody in the world. Whenever we speak at big symposiums, people are very interested” (SA WS2.3).

This intense interest in Woodstones was also evident during the various events, presentations and meetings I observed during the period of my research. In addition, these expressions of interest not only came from issue activists or non-governmental organizations, but also from other businesses, the media and industry actors. For instance, in the days that I found myself at Woodstones head office, I had observed and attended multiple requests from media, researchers, business coalitions and at least two other dedicated meetings with overseas retailers seeking to replicate Woodstones’ work in their supply chains.

According to agents they felt it was “their role” (WS 2.5) to help other businesses try and follow in their footsteps, “even competitors” because “the moment you are trying to offset the one [competition] against the other [the environment]... then you are out” and no longer working towards the pursuit of a collective good (SA WS2.3). Even more to the point, one agent indicated at a business event where he was a panelist, that he “now and then quite miss[ed] the little bit of pressure [that NGOs typically apply to] companies that *aren’t* trying to work in this space” (WS, Documents).

### **3.4.2 *Installing the frame into firm policies and practices***

In addition to efforts beyond the firm, agents also worked diligently towards *installing* their advances vertically and horizontally within Woodstones. According to one external ally, Agents were recognized as being the “architects and drivers” of change within Woodstones, “skilled at integrating” issues such as soil health into various teams (EX WS2.1). When asked directly about this and his involvement in it, one agent said:

I think it’s fairly well integrated into values, mission, strategy, all of those things so it’s always actually made life quite a bit easier because even people that may not know as much about it [being] one of our values’ and [that it is] one of the blocks in the strategy map, I think there is a fair level of integration and it translates into people’s scorecards as well (SA WS1.9).

Through their work with NatureFed, agents had also established a new understanding of what it meant to engage collaborators on a “transformational” basis, where both parties became more comfortable with “co-creating” their understanding of key issues and involving NatureFed in “guiding... FutureFit” (SA WS2.3) and influencing the very “way that Woodstones does business” (EX WS1.3). On a practical level the result was that there was “learning going on in supply chains” (SA WS1.8), the formalization of a longer term and expanded partnership and the realization of a “scaling of impact” that allowed for greater “influence among key stakeholders in production landscapes” (WS Docs).

Although officially falling under the broader PBP programme for reporting purposes, the work on FutureFit and partnership with NatureFed became the epicenter of change and innovation in Woodstones and “what had happened in food, started to happen for the greater business” (EX WS2.1). The changes were reflected in a wide range of renewed and expanded formal policies, contracts and practices affecting the entire business from head office and operations to supply chains. By the end of my research, the firm’s agents had also initiated or expanded their work on FutureFit into other geographies beyond South Africa; issues such as water and commodities; departments and units such as clothing; and, products such as dairy and beef.

### *3.5 WOODSTONES’ EXPANDED FRAME*

Woodstones’ new framing positioned soil health and other social and environmental issues as the foundation of their business. While their fundamental “strategic objectives [were still] aimed at driving growth and stakeholder value” a further addition to their business **objective** was also to be “the most sustainable retailer in the southern hemisphere” (WS Docs). Hence as the dominant perspective on **salient context and stakeholders** continued to emphasize relationships with consumers and suppliers, the renewed frame also now incorporated attention to the views and interests of these groups regarding issues such as responsible sourcing and resource scarcity, among others. This salient context was also influenced by

Woodstones expansion into further geographies in the intervening years. As a result, the organizational view became one that saw Woodstones as “part of a complex, globalized supply chain with the potential to work with and influence both suppliers and customers” (WS Docs). This was also summarized by one of the agents in Woodstones who said “if we want supply chains to operate well into the future, particularly as we expand our food business, then we need to be more involved than some of the other retailers” (SA WS1.7). The **practices** involved a continued focus on productivity, but also influence and support to farmers as they confront “external factors in farming that we don’t have control over” such as anticipating and helping address future risks in the landscape (SA WS1.2).

#### 4.0 SUPPLEMENTARY CASE STUDY 2: MAX & CO

##### 4.1 MAX & CO’S EXISTING FRAME

For much of its decades-long history, Max&Co had enjoyed a well-established position in the retail industry and a strong consumer base in the United Kingdom. According to one interviewee, they could have been described at the time as “decent with a small d” and doing fairly well at “keeping up with the trends,” but also limiting their activities to those that would allow them to “stay ahead of the snapping jaws of the press and the NGOs” (SA MC1.1).

However, as competition increased, Max&Co’s lost its edge and much of its market share. Performance started to flag, and by the time a new CEO was employed in 2004, the firm was in clear decline. As a result, the immediate and chief concern of the new CEO was to protect the company from an unsolicited takeover and next, establish a plan to “return to growth” and “restore brand appeal... to customers” (MC Docs). Hence, prior to the initiation of issue advancement activities by signifying agents in Max&Co in 2007, the firm’s foremost **objective** was to stabilize the business and renew opportunities for growth and profit. According to the firm-frame at the time, the **salient context and stakeholders** were also mainly the target of their sales – consumers – and protecting their relationship and interests with this group. This involved ensuring that consumers viewed Max&Co as a trustworthy and quality brand. As

such, the primary strategy to regain Max&Co's position and restore consumer interest and loyalty was through a focus on efficiency through streamlined buying, supply chain and stock management **practices**, promising value-for-money in product sales.

#### 4.2 STAGE 1: INTRODUCTION AND DISRUPTION

As in prior cases, the first stage of issue advancement in Max&Co focused on **the introduction and disruption of** key interpretations and information regarding the issue of interest, in this case, water in Max&Co's supply chain. In order to initiate their focus on water, agents focused on **leveraging** similar initiatives (i.e. greenhouse gas emissions reductions) within the firm and emerging practices around to establish the relevance of their issue. Once they did this, they started to explore their initial ideas around water with external actors by **soliciting others regarding** a possible diagnosis.

##### *Background*

In 2007, after reading Al Gore's 'An Inconvenient Truth', the CEO arranged for 100 senior managers to go and see the film of the same title at a cinema near Max&Co's head offices. After their excursion, many in the group noted that they "wanted to do something" about global environmental change and a few months later, with the help of two of these managers in authoring the initiative, they launched PlanetPurpose, a "deliberately ambitious and in some areas difficult plan" to reduce negative environmental, social and ethical impacts of carbon, waste and sourcing across their business (MC Docs). Leaders and the signifying agents involved (2-3 middle managers) set out a handful of priorities and 100 five-year targets to be achieved through improvements in the organization's facilities, offices, stores and products. Water was one of these, and later that year also became a key topic of discussion among global business leaders at a high-profile United Nations meeting (a meeting that was later attended annually by agents from Max&Co).

#### 4.2.1 Leveraging internal sentiment

Soon after, the economic impacts of the global financial crisis took hold in Max&Co and elsewhere and concerns were raised about unnecessary spending on new activities. However, rather than threaten their interest in water, the changing economic and discursive climate enabled agents a pivot to *leverage* this sentiment to consider a view in which water was a means of cost-savings and eco-efficiency. This perspective on water was well aligned with the principle of containment that underpinned the CEO's much talked about organizational turn-around strategy, involving plans to "control costs... streamline practices... and deliver more value" through various cost-cutting measures and close monitoring of operational activities and performance (MC Docs). It was also consistent with the prevailing "narrative...on [climate change] mitigation" that underpinned the wider PlanetPurpose program (SA MC1.4).

Hence, unlike other members who felt that the continued pursuit of PlanetPurpose was contrary to the interests of the firm and its shareholders, Max&Co agents were determined to "not be put off by the short-term impact of the recession" (MC Docs). Instead their plan was to make "a strong business case" for water as part the broader plan to maximize operational efficiencies and enumerate savings to internal and external stakeholders (SA MC1.1). In this way, agents could draw parallels with energy and greenhouse gas emissions, which, if not driven down, would result in growing costs to the firm due to changing regulation, increasing energy prices and projected resource price volatility.

The way they described the point of leverage was therefore to include water in Max&Co's aim to "ruthlessly drive down [the firm's] footprint" through "less waste, less water less energy" and a "granular system of information" for monitoring to facilitate rapid correction and hands-on management (SA MC 1.2). As it turned out, however, this interpretation of water as a problem of operational efficiency (and the resulting prognosis and prescriptions for action) met with a challenge once applied to the context beyond the boundaries of the firm. Agents

had to reconsider their diagnosis and emerging prognosis, which is the focus of the sections to follow.

#### **4.2.2 *Soliciting external actors for diagnostic assistance***

In order to extend their work surfacing the issue of water in the “significantly more ambiguous and uncertain” context of water in Max&Co’s supply chain, agents began *soliciting* external actors for “expert advice and support” on how to go about doing so (MC Docs). Although the issue of water was “relatively new to business” at the time, agents at Max&Co had also been exposed to the growing level of activity and expertise available around this topic and sought to create opportunities to engage other actors in this space where they could “get help” (MC Docs) . For instance, in late 2008, a middle manager from the Sustainability Team Max&Co participated in the second annual United Nations event for businesses interested in water, where they shared with other actors their sense that the organization’s “biggest challenge” was that “we don’t know what we don’t know!” when it comes to the firm’s “hugely complex supply chain.. [and] over 20 000 farms in their indirect supply chain” (MC Docs). One of the other organizations participating in the event was EarthFed, a non-governmental environmental organization (NGO) who had “been very involved in the debate” on water thus far and “seen as leaders in the field” (EX MC 2.9).

Agents at Max&Co reached out to EarthFed for help with the responses to water that leaders at Max&Co had discussed internally and later announced publicly. For instance, they felt they might “need to relocate key crops” due to potential challenges with supplier water availability and intended to engage experts at EarthFed in a “discussion... about where to grow crops in the future” (MC Docs). Agents at Max&Co also hoped that EarthFed could assist the company with their promised efforts to reach out to customers, employees and suppliers “to help them to take action to reduce their own environmental impact” around water and other resources (MC Docs). As part of this, Max&Co directed customers to EarthFed’s ‘footprint’ calculator to assess their own water impact based on individual user behavior. As part of their consultation, they were also encouraged by EarthFed to test a similar methodology intended for corporate footprinting and virtual water impact “beyond the fence-line” (SA MC1.4). Although the tool

was still in its early stages, agents hoped that might assist with the team’s diagnosis of water use in the supply chain as their primary challenge and how efficiencies could be gained in the supply chain.

#### 4.3 STAGE 2: EXPERIMENTATION

By the time reached the second, **experimentation** stage of their issue advancement, they hoped to discover something new from their interactions and investigations to further deepen their understanding of water. Their attempts at **exploring** different approaches and understandings were multiple, and at times, disheartening. However, one of experiments helped agents to begin **situating** their diagnosis within a more contextualized view of the challenge facing suppliers and then work to **coalesce** with partners and suppliers around a transformed framing and prognosis.

##### 4.3.1 Exploring an emerging diagnosis and prognosis

As agents began *exploring* the proposed corporate footprinting method they started to get a better idea of the complexity of the task before them. They initially set out to conduct a comprehensive yet coarse-grained assessment of water in the supply chain to help familiarize the team with the process and confirm the general direction of their diagnosis and prognosis. Although this first attempt reinforced agents’ view of Max&Co’s water issue as multi-faceted and wide-reaching in the supply chain, it also highlighted the relative significance of this water use compared against operational efficiencies within retail facilities and offices. For instance, Max&Co’s ‘high-level’ assessment revealed that 90% of the firm’s water use was located in the wider value chain. What the team was less prepared for, however, was the next step – a more detailed examination of key parts of Max&Co’s supply chain, yet still largely led from head office.

In this second step, agents and partners created a more substantive opportunity with which to experiment. They gathered information from farmers to footprint 200 suppliers in five (out of more than 70) source countries and combine this with internal data regarding the strategic value of various products and sources. While agents hoped that this survey would lead to the guide for consumer action (e.g. through a label on products), decisions about crop relocation, and a ‘wider plan’ that leaders hoped for the following year (2010); this was not possible. Rather, what the exercise revealed was that a number of agents’ preliminary assumptions about how to proceed with their diagnosis and prognosis were flawed.

In the end, agents “got a lot of the data and, it was paralyzing. We couldn’t do much with it” (SA MC1.5). In particular, they found that because they were “constantly seeking perfect data,” or more fine-grained data, they were also “making it too complicated” to formulate an appropriate diagnosis (SA MC1.4). They also discovered that, contrary to Max&Co’s experiences with carbon, calculations and planned actions based on volumetric use were insufficient when it came to addressing the diversity of experiences and relationships suppliers had with water. Unlike carbon, determining water impact required “gathering data for a [resource in] a supply chain that is constantly shifting, changing and moving”, an “intellectual task that” as one agent admitted later, “I struggle to conceptualize” (SA MC1.1). Recalling Max&Co’s original intent for these data he said, “Is the consumer going to actually buy a particular blouse because it is 1.6% more water secure and sustainable... no she is not” (SA MC1.1). According to a senior staff member at EarthFed, this disconnect with the original strategic frame at Max&Co was something that he was seeing among other businesses active in the emerging issue field:

Water makes companies vulnerable. Many think they can manage water scarcity in the same way as carbon, but you can’t. The non-substitutable quality of water has really shaken the firms that have started to look at the issue (MC, Documents).

Although it was “very, very difficult” (SA MC1.5) and agents felt as though they had “fallen off a cliff into a whole new world” they also had a sense that “this is just the beginning” of the turning point they were seeking (SA1.1). As they moved from working “largely... in-house”

to “trying just about every approach” with supplier partners and other actors (e.g. new standards organizations, international development organizations) they slowly started to incorporate novel ideas, relationships and attributes of supply chain water into their reframing activities (SA MC1.4). Much of this came out of the interaction with partners and first-hand insight into how to understand local water impact and translate this to a diagnosis of virtual water or assessment of indirect water use. Among others, these further experiments included embedding water efficiency in supplier scorecards, defining and promoting water stewardship and identifying water ‘hotspots.’ One of these was in the region of Cummings where Max&Co had important fruit suppliers and with the help of NGO EarthFed who had another office in nearby Cape Town.

#### **4.3.2 *Situating a diagnosis within a material reality***

What the initiation of these additional experiments offered agents was a chance to unlock their paralysis by *situating* their diagnosis of water within the context and physical realities faced by suppliers. They realized, as one agent put it, “Max&Co does not live in a bubble. There is a system – an economic, social and ecological system around it” (SA MC1.1). According to this revised view, the conceptualization of water became conditional on its meaning and value to others within the organizational “ecosystem,” as it was later described (MC Docs). For this reason, agents began reshaping their issue advancement framework to account for the contextual elements and interdependencies of the suppliers and the landscapes in which they were located, such as vulnerability to drought. In contrast to Max&Co’s original frame and prior focus on efficiency, the incorporation of these new elements added a layer of intricacy to their diagnosis and prognosis that suggested an ill-fit with the approach they’d been applying internally:

Water, water is fascinating, ‘cause water is doubly difficult. Because carbon is carbon. A ton of carbon released in Beijing or Cape Town has the same impact. A ton of water used in [water rich countries like] Wales or Scotland is very different to the [semi-arid] Western Cape [in South Africa]... Because I can have a global carbon policy, and in effect, drive down the carbon emissions from this business. But I’ve never had to stop and think about [adapting to the circumstances of] any particular location or country; Water, you could go mad [applying the same logic as carbon]... (SA MC 1.1)

Hence what agents had learned from their experiences with the pilots concerned the nature of water as an issue that is differentiated in time and space. Thus, they began adding information on latitude and longitude for mapping the location of suppliers as part of their assessments, as well as checking this information with in-house experts on particular source areas and local stakeholders. In particular, the agents started to redefine impact in terms of so-called “risk hotspots” or areas of water vulnerability in different landscapes. This not only involved overlaying geospatial information on key events (such as droughts) and supplier exposure to water issues, but also data regarding ecosystem services, water management and governance in local areas:

And, so, I think we had to go through the process of kind of – raw material: what are the issues, what are the risks, what’s our view of it, scoring it, checking it with experts and then it was sort of – well, now that everything on the map is red [high risk], what can we do about it? But then we started to say, well... what are the things that would really move the dial? (SA MC 1.4)

In addition to focusing on high risk areas, the team came to see that they “couldn’t solve it from head office”, emphasizing that “the further away we get, the more we need to work with others” to make an impact (SA MC1.4). On the one hand, they felt that “there is no point going to suppliers and saying ‘you need to think about the principles of water’ ... because you need to go to the supplier... and [develop] this tailored set of interventions based on their circumstances” (MC 1.4). On the other, they also felt that if they did this for every location in their supply chain “you become a water business, not a retailer, so... you look at [where] you could focus 80% of your efforts on 20% of your locations to get the most benefits” (SA MC1.1).

### ***4.3.3 Coalescing around a new frame and appropriate prognosis***

In Cummings, agents found those that “could make it work...and had the local convening capacity” to effectively influence and address the needs of that particular landscape (SA MC1.5). In this collective of locals and partners, agents at Max&Co finally began *coalescing* around a completely different frame from that which they started out with. Although “water was a constant source of anxiety” for farmers in the Cummings basin due to regular drought

events and extreme ongoing water stress, their problem was certainly not one of irresponsible use or inefficiency on the part of farmers (EX MC2.7). Instead, according to one agent, their understanding of the problem of water in supply chains called for a better appreciation of local nuances in their diagnosis and prognosis:

In Cummings [we found that], you've got the absolute leaders gobally [in terms of efficiency] and some that are lagging a little bit behind... but also that you can't have a black and white way of looking at it, you really have to understand the realities on the ground and... that you can have fantastic commitment but not yet be showing an improvement in any metric. So, with these kinds of programmes... you often see the qualitative is changing before the quantitative is. You will see the dial is shifting and [the activities are] impactful, but it just might not be manifesting itself yet in terms of physical impact (SA MC1.5).

One way to describe this new frame was as one that emphasizes a prognosis of 'adaptation' over 'mitigation' in the case of water. Hence, according to agents' revised perspective, their greatest success in Cummings was in "creating a burning platform for change to happen" (MC 1.5) and learning that previously inconceivable actions such as "attending to the issue of alien invasive species, could reduce surface runoff by up to 40% in just a couple of years" (EX MC2.9). Although actions such as this or the establishment of a stewardship committee would not fit easily into Max&Co's quarterly or annual metrics, agents felt they could signal a different kind of progress towards the more important goal of "improved governance" and "management of common water resources" (MC Docs). While they recognized that this meant "working patiently" over "many years to come," they also saw many current and future advantages for Max&Co from "improved relationships with our suppliers and increased stability of supply, which in turn benefits farmers too" (MC Docs).

#### 4.4 STAGE 3: ENACTMENT

By the time agents reached the **enactment** stage, their advancement work had come a long way and they were eager to create and take advantage of opportunities to **elevate** their learning and assessment of water to other businesses, contexts and actors. They had also

created a foundation and awareness internally from which they could focus on *installing* this framing into firm policies and practices.

#### **4.4.1 Elevating the frame to the issue field**

Once agents at Max&Co were confident with their learnings and transformed framing they began *elevating* their diagnosis and prognosis to other contexts and fields. Max&Co not only joined EarthOrg in wanting to “change the framing about water risk” (EX MC 2.9) among other businesses and issue activists, but also in offering pragmatic advice and a frank account of the challenges they had faced to other actors and businesses for their own issue work. They issued guidance to other firms stating that “every business needs to have water stewardship on their agenda”, for them to “not be put off by the complexity of supply chains” and to “focus on where you have influence” (MC Docs). They did this because Max&Co saw their new role as one that involved “changing the mindset [of businesses] from water management and efficiency to looking at the whole water community through stewardship” (MC Docs).

While agents confirmed that working with allies was a key way of achieving this, sharing information and working to expand lessons from their advances for the benefit of other organizations and companies were others: “we’ve done it via a number of different routes, but our aim is always to try and develop a model that others could replicate” (SA MC1.5). Their work elevating their frame could take the form of “demonstrating by doing” or “using our convening power to get others to come with us and drive transformation at scale” (MC1.5). On the ground, agents also elevated their advances in the landscapes which they knew to have water challenges or where they were already active. In Cummings, this meant expanding their collective action project to the full catchment to include other local retailers, businesses, organizations and residents. In Spain, this meant “buddying up...with over 80 different brands...to help improve water management in the area,” including by reducing the impact of production itself on protected wetlands nearby (MC Docs). Finally, in Kenya agents were

making plans to “support the other water users, through lobbying for better regulation, enforcement and forming a water-users association” (MC1.5).

According to one agent, they needed others to come on board because she said, “water is one of those classic things: you can do all you want, but if no one else bothers... you are stuck without water” (MC 1.4). Hence, while their efforts in elevating their experiences would help others facing the same challenges, according to an external observer, it was also “becoming increasingly important for Max&Co to not be the only retailer investing [in global supply chains]” because “moving towards a more collaborative model would help them to gain across all of their [supply chain] actions” (EX MC2.1).

#### **4.4.2 *Installing the frame internally***

In the final stage of issue advancement, agents worked on *installing* their lessons and revised framing into the fabric of Max&Co. They convinced colleagues and senior management within the firm that however complex, one of the major benefits of this new framing and prognosis was that they were finally able to see the “art of what is possible” on water and that it presented the company with a way to “operate in a bigger way than the size of our organization” (SA MC1.5). In addition to working with others and building on their network in the issue field, another key aspect of this installation involved practical changes to the policies and practices relating to water and supply chain engagement within the firm.

They hired staff to work on water stewardship and invited members of the buying teams to go on supplier visits where water was an issue as a means of “making sure that we are embedding our approach to water into the way that we buy, rather than [having it] sitting as a separate function” (SA MC1.5). They also changed the way they engage suppliers, encouraging more feedback and exchange and building in incentives for “proactive management of water resources” through collective action over and above water efficiency measures in scorecards and reward systems (SA Docs).

Agents also felt that they had generated sufficient support internally for the “non-financial business case” around water and supply chain resilience, and that this had become a key feature of integrating their work into strategy and decision-making in the firm (EMP MC1.3). They found evidence of this in the reversal of earlier ideas around exiting or avoiding the risks associated with ‘red’ water stressed areas:

One in eight [suppliers] are in the highest water risk category. Some of these products, worth millions of pounds to the business each year, are entirely grown in areas of high water stress. One option would be to move supply elsewhere, to areas of lesser water stress. However... the approach that the company is taking is to continue working with suppliers using the stewardship approach to reduce risk and impact (MC Docs).

They were also successful at establishing a new policy for the firm as a result of their work and a public commitment for Max&Co to “put in place water stewardship plans for our most material and at-risk watersheds” across the business by 2020 (MC Docs).

#### 4.5 MAX & CO’S EXPANDED FRAME

Seven years after agents had initiated their issue advancement work in Max&Co, although they still felt they hadn’t “cracked it yet” in terms of unearthing all of the complexities and potentially impactful risks they and their suppliers were facing (SA MC 1.4), they had been successful in redefining the way in which the business looks at the issue of water. In the intervening period and based on their efforts on water and related sustainability issues, the company had reshaped its business model to prioritize ‘circularity’ or the continual use and elimination of waste in resource use. While economic performance remained a key **objective**, the firm was also clear on its intention to “become a sector leader in sustainable consumption and production” (MC Docs). The **salient** context and stakeholders they had identified to address this **objective** not only included the market and consumers, but also NGO partners, suppliers, intermediaries and producers. While continuing to engage consumers on their own behaviour and choices, they also knew that customers “looked to the company to lead the way on solving more complex problems like water scarcity” (MS Docs). Ultimately, the agents

had helped shift organizational members' interpretation to one that believed that "even if the business is doing well and we as a company are perfect, but the society and environment around us fails, then we fail with it" (MC 1.1). For these reasons, when economic performance dropped or margins were under pressure, the firm continued to pursue these goals through **practices** that went beyond efficiency and profitability to be "transparent, economically self-perpetuating, circular and based on the sustainable use of resources" (MC Docs).

## **5.0 THEORETICAL MODEL**

My analysis gave rise to a theoretical process model of firm-internal agents' efforts at advancing the meaning of grand challenge issues relative to the firm and its existing strategic frame (Figures 4 & 5). In addition to the primary role played by these signifying agents in orchestrating this process, the consolidated process model highlights several other key features: the original and expanded firm frames (on far left and right sides of Figure 4 respectively) and the three major stages of issue advancement and 'readiness' for change (chevrons). Figure 5 zooms in on the details of agents and allies work, including the progressive nature of issue advancement afforded by the interplay (circular arrows) between contextual opportunities (trapezoids) and foundational framing sub-processes orchestrated by agents (area of diagonal shading). I describe each of these in turn below.

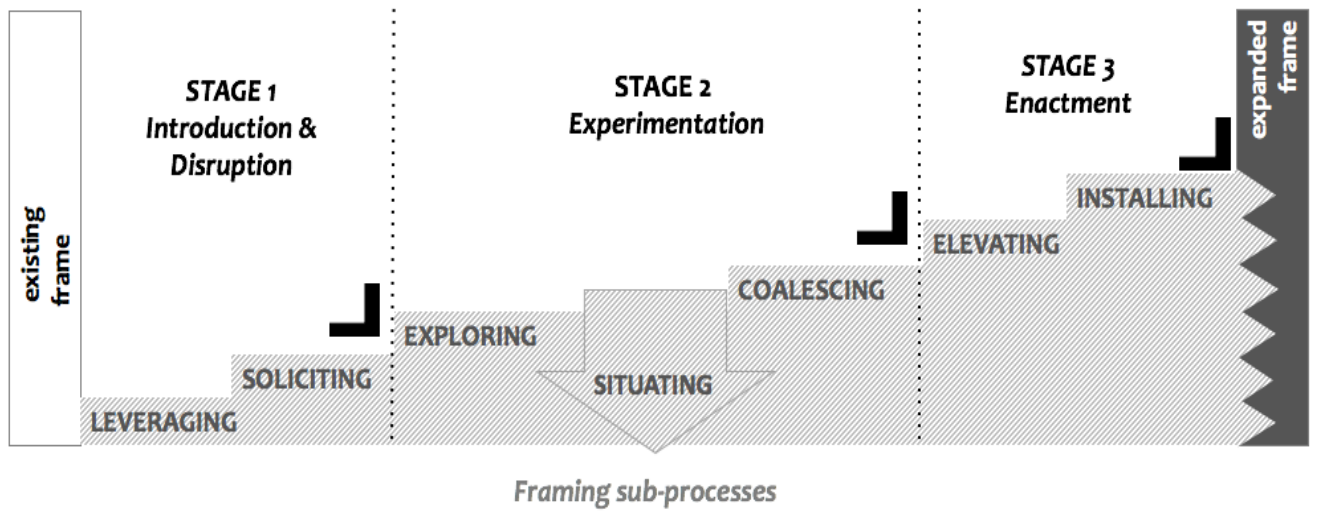


FIGURE 4. THEORETICAL MODEL OF INTERACTIONAL FRAMING FOR ISSUE ADVANCEMENT

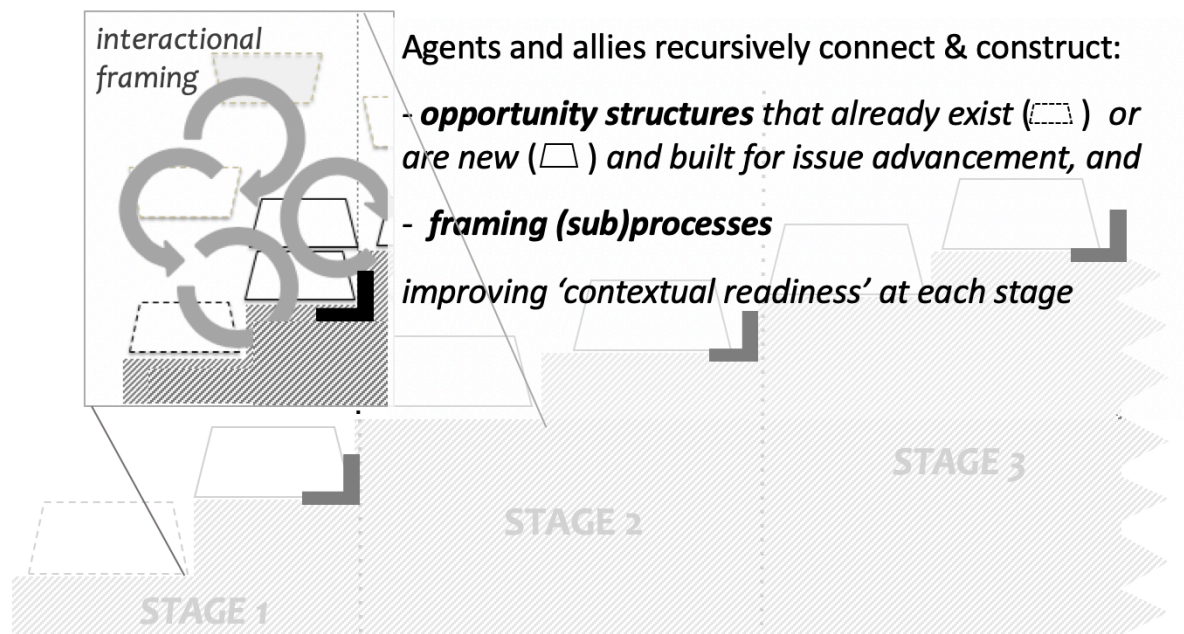


FIGURE 5. ZOOMING IN ON AGENTS' INTERACTIONAL FRAMING FOR ISSUE ADVANCEMENT

**Signifying agents and allies.** My cases revealed that 2-4 middle managers, referred to as 'signifying agents' in each firm were responsible for the initiation and orchestration of issue advancement within their firms. Figure 4 provides a landscape view of what agents and allies do and what they achieve, in terms of driving the attachment of significance to grand challenges. In addition to this, these agents were also responsible for mediating the social, material and environmental conditions that facilitated the advancement of meaning around these issues detailed in Figure 5. This means that agents were not only driving new ideas and meanings within the firm, but also taking advantage of and contributing to the creation of opportunities to do so within the broader (internal and external) environment. My research also highlights the critical role of allies in supporting this work. Internal allies within the firm helped to build an initial understanding of the issue and later integrate these issues into meaning systems and practices within their area of influence (e.g. other departments). External allies played a key role in helping to orient meaning work around contextual conditions outside of firm boundaries or current framing. External allies brought new knowledge, issue experience and novel areas of attention to the meaning-making process.

**Original and expanded frames.** The original and expanded frames shown on either side of Figure 4 illustrate the change in state achieved by the case study firms during the research period. These frames represent the conceptual frameworks used to guide organizational members' communication, understanding and choices in respect to perceived organizational priorities and sources of meaning. In my research the original and expanded frames identified in my analysis were distinguished by their scope. Organizational frames were initially dominated by a focus on profit-making and the boundaries which constituted the firm's interests (strategic frame). Later and as a result of the efforts of signifying agents and allies, firm frames featured an expanded interpretive scope incorporating grand challenges within the organizational meaning system.

**Stages.** My analysis gave rise to three main stages of issue advancement. While work undertaken by agents and allies at each stage could in practice, overlap with other stages,

they are delineated here to emphasize their focus and how each stage builds on the one before it over time. This progression was evidenced by a broad shift in the purpose of framing from one stage to the next. Hence, I define the stages according to the predominant framing tasks being performed relative to the overall process of issue advancement: i) *Introduction and Disruption*; ii) *Experimentation* and iii) *Enactment*. In addition to the three purposes of introducing the issue and disrupting existing frames (i); testing emerging interpretations (ii), and; realising renewed frames (iii), these stages and their constituent framing sub-processes (as described further below) can also be understood as delivering ‘contextual readiness’ for further issue advancement progress.

### ***Interactional framing***

At the heart of my model and featured in detail in Figure 5 is the interplay (circular arrows) between meaning work and opportunities (trapezoids). Opportunities are social, material or other environmental conditions that influence, and are influenced by, agents’ signification efforts. These can be objective and opportunistic (e.g. public discourse) or subjectively constructed and strategic (e.g. new forums for interaction), or both (e.g. interpretations of a physical place or space). In this depiction, the combination of contextual opportunities (trapezoids) and agents’ framing efforts create the conditions of ‘contextual readiness’ for successful onward issue advancement. While contextual conditions may also constrain framing success, my analysis was limited to those that afforded issue advancement and re-interpretation.

#### **5.1 INTERACTIONAL FRAMING STAGES AND SUB-PROCESSES**

This section describes the interactional framing stages and sub-processes of the model in greater detail. In the sections that follow (2.1.1 – Introduction and disruption; 2.1.2 – Experimentation, and; 2.1.3 Enactment) I outline each stage and the constituent framing sub-processes derived from my analysis. Each outline includes a stage description, definitions for each sub-process, and an illustration of the stage and subprocesses from one of the case

studies. To further support these outlines, each section is also followed by a synthesis of findings from all cases for each stage, including illustrations of how the framing sub-processes and opportunities were linked using data excerpts from the cases.

### **5.1.1 Stage 1: Introduction and Disruption**

In the first stage of issue advancement, middle managers are focused on the introduction of an issue they've identified as being worthy of attention within the firm and the disruption of the existing frame among organizational members and leadership. During this stage, middle managers draw the attention of other members to a cause or problem that is currently underrepresented within the dominant interpretation of the firm and they and seek out allies in their issue advancement efforts within the firm. In seeking to expand the key elements of the existing strategic frame - such as a narrow emphasis on profit-making- these agents and allies set themselves the task of raising the significance attached to the focal issue and reinterpreting its relationship to the firm. Agents seek to safely introduce the issue into the organization by linking their interests to existing tools and salient concerns within the current organizational frame of reference. The outcome of the first stage is that the disconnect between the existing frame and issue is established and a readiness for reframing is deemed possible by organizational members. Signifying agents recognise the chance for further and expanded influence and begin to develop further opportunities to do so. The introduction and disruption stage includes two key sub-processes: *leveraging* and *soliciting*.

**Leveraging.** The first framing sub-process identified in my study is *leveraging*. I define *leveraging as agents' efforts to identify and mobilize 'safe' or familiar opportunities to pivot attention to, establish relevance, and implant information relating to the issue of interest among organizational members.*

Data from my study indicated that agents' pursuit of change begins when they identify 'adjacent' opportunity structures within their contextual environment to *leverage* for their own advancement purposes. Unlike the focal issue that agents seek to advance, these

opportunity structures were within reach of current organizational framings and hence considered 'closer to home' or legitimate objects of organizational attention in the context of the existing strategic frame. The interactional framing work of agents in this instance therefore involves the identification, selection and repurposing of these particular openings so as to facilitate attention on the focal issue and prime reconsideration of the current organizational frame.

For example, in the SunSure case, one agent described her realisation that the scenario planning on which the organization had based its existing strategic and business plans was no longer valid after the global financial crisis. She explained how she and others leveraged the opportunity of a renewed scenarios exercise to influence and shape the focus of internal strategic discussions. By including information and informants in this exercise concerned with the issue of climate change, agents helped to disrupt current conceptualisations about what was relevant to the firm and harness this conflict between old and new ideas to underline the significance of their cause. Further, these actions also helped to establish agents' role as influencers and advocates of a particular issue within the firm.

**Soliciting.** The second framing sub-process involved in introduction and disruption is *Soliciting*. I define this as *agents' efforts to garner support from interested internal and/or external allies towards reframing*.

Following the success of their initial disruption of current framing and introduction of the issue by leveraging existing contextual opportunities, agents' next move is to begin actively engaging others in their efforts to inform their diagnosis of the issue relative to the firm. Unlike in the previous step where existing opportunities were leveraged to introduce the issue within the firm and disrupt the current framing (breakdown), here signifying agents work to develop specific, fit-for-purpose opportunity structures which allow them to convene and confer with potential allies and informants on their own terms (buildup). As a result, these actions also lead to the attraction of additional frame content, advocates and interested parties, and the establishment of a small core team of signifying agents within the firm.

Again, in the SunSure case we can see an illustration of soliciting as the first agent, Nellie, establishes two new platforms aimed at developing a better understanding of climate change with and among those interested and affected by the issue in their work, both internally and externally. These include hosting a high-profile conference targeting an emerging field of issue activists interested in the intersection between business and climate change, and a standing quarterly forum of senior managers within the firm. In so doing, she also established a pool of potential allies and a laboratory of ideas to be drawn on as signification work is further advanced.

STAGE	SUB-PROCESS	CONTEXTUAL OPPORTUNITY	LINKING TOOL	CASE	EXAMPLE DATA EXERPTS
INTRODUCTION AND DISRUPTION	<i>Leveraging</i>	Public discourse: financial & risk mismanagement	Scenarios	SS	I can remember quite clearly seeing the news of the financial crisis and thinking 'wow' our scenarios aren't valid anymore (SA SS1.1)
	<i>identifying and mobilising adjacent opportunities to focus attention, establish relevance and implant information towards frame disruption</i>	Shared interests and relationship with executive	New Strategy	WS	The CEO then, called us all together and he said, 'This whole green business, I want it to be part of the entire business' and that was our pivot to do what we wanted. (EX WS1.2)
		Internal sentiment: focus on efficiency and reduced costs	New Strategy	MC	At first it was just about the business case...generating savings through less energy, less water, less packaging (SA MC1.1)
	<i>Soliciting</i>	Emerging issue field: available expertise	Conference Hosting	SS	It [the conference] was our way of saying 'Hello world, we don't understand this, can you come help us understand?' (SA SS1.1)
	<i>Creating opportunities to bring together interested internal and/or external actors to solicit additional interpretative material towards reframing</i>	Emerging issue field: available expertise	Interviews and consultations	WS	We interviewed a whole lot of experts (SA WS1.1)
		Emerging issue field: available expertise	Interviews and consultations	MC	Biggest challenge with water in supply chain: we don't know what we don't know! We [needed to] get help (MC Docs). I struggle to conceptualise the task [of assessing water in the supply chain](SA MC1.1).

TABLE 2. STAGE 1 (INTRODUCTION & DISRUPTION): SUMMARY OF THEORETICAL MODEL FEATURES AND TOOLS FACILITATING FRAMING FOR EACH CASE

### 5.1.2 Stage 2: Experimentation

During the second stage of issue advancement, agents' focus is on experimenting with emerging issue interpretations (diagnosis) and developing possible actions that will help to address the defined problem (prognosis). Acting on the basis of the foundation established in the prior stage, agents in this stage work less tentatively and more ambitiously towards their goal. They test their ideas in practice, through new projects or assessment methods. They do so by not only engaging external actors, but bringing them in as allies to the process of meaning making. They also add unconventional elements to their repertoire of tools and resources— such as ecological data as a contextual opportunity - which in turn, influence the process, agents' efforts, and the possibilities for actions that follow.

Importantly, my analysis also revealed the more pronounced influence of issue type during the experimentation stage over the introduction and disruption stage. In particular, my analysis pointed to the character of grand challenges becoming more critically influential during this stage because of the way the testing of issue diagnosis and progression to issue prognosis challenged the boundaries of meaning (including who and what holds meaning and influence) for the firm. Hence, a key characteristic of this stage is the engagement and entanglement of signifying agents with multiple sources of meaning beyond those incorporated into the previous firm frame (e.g. ecological instead of mathematical data). These social and material contextual opportunities and were at once, both exogenous to the firm (e.g. external actors or physical conditions) and inherent to the nature of the (complex social-ecological) issue in question. While substantive support and ideational content is generated for frame renewal through interaction with internal and external allies, the process of interactional framing takes on a more deliberative and distributed character. The outcome of this stage is that a plausible interpretation of the issue and readiness for action is established, but this is the result of the emergent interactions between social and material 'co-authors' of meaning and agents' efforts. While the three sub-processes (*exploring, situating and coalescing*) involved in this stage are likely to overlap in their occurrence, I

delineate them separately to emphasize their specific foci and impact on the overarching issue advancement process.

**Exploring.** The first framing sub-process in the experimentation phase is *exploring*. I define *exploring as agents' efforts to collaborate with external actors for the purpose of further detailing and testing emerging issue framing - and if necessary, generating alternatives – towards a deeper diagnosis and future prognosis.*

As attention to the issue is increased and emerging interpretations generate sufficient interest and support from other internal allies, agents create opportunities to begin exploring the issue in context. This involves developing a diagnosis of the issue that is sufficiently robust to facilitate the determination of a meaningful prognosis. In my study and owing to the nature of grand challenges, this involves engaging with actors and places beyond the boundary of the firm. Agents enter into partnerships with external actors with little knowledge of or influence on internal firm strategy, but direct experience or expert knowledge of the focal issue and the context(s) in which it manifests. A deeper and alternative framing of the issue is articulated based on the interaction with external allies, the pursuit of alternative approaches to those conventionally applied by the firm and the new knowledge that results from doing so. These activities and collaborations are both challenging and generative, often requiring substantial investment and time to conclude.

For example, in the Max&Co case, agents initially employed the new method of corporate water footprinting made available to them by partner EarthOrg to better understand the issue of water in the supply chain. At first, they expected the footprint to help the organization guide consumer action, avoid high risk sourcing areas and drive efficiencies in the supply chain. However, the nature of the data gathered with farmers and help from EarthOrg were an ill-fit with these aims, it was abstract and complicated to analyse and thus ultimately unusable. It was only when they experimented further with additional methods and field studies that approached the issue of water through the lens of local systems that they came to revise their conceptualisation of the problem.

**Situating:** The second sub-process in the experimentation stage is *situating*. I define *situating* as *locating the context of the prognostic frame and action of the firm and allies within a specific social, ecological or geophysical context and in so doing, embedding agency in place.*

The study revealed how firm-internal signifying agents' diagnosis was shaped by experimental activities which *situated* these renewed possibilities for understanding and action within the context of a physical system, or place. By offering visual and material cues concerning how the issue manifests in these places (e.g. through site visits and scientific models), agents and their allies (both internal and external) were afforded practical and contextual insights into the connections between firm, people and processes relative to the focal issue. This in turn, offered an additional interpretive filter which shifted boundaries and structure of their conceptualisation to consider these social and physical dynamics and features as a meaningful part of diagnostic framing. The result is an integrated framework for understanding that mediates the possibilities of action according to the dimensions of place.

Continuing with the earlier example of Max&Co, the sub-process of situating agents' framing of water was facilitated by structuring their water assessment according to 'at risk' landscapes based on site specific and geographic information, as well as the participation of agents in field visits to areas of water stress or insecurity. They found that the implementation of efficiency measures by individual farmers in their supply chain could have relatively limited impact (e.g. on the security of crop supply or water resources) because of their location within a broader catchment under water stress. According to this reconfigured view, water was understood as a 'local' or 'ecosystem' problem, rather than a 'head office' problem.

**Coalescing:** The final sub-process involved in the experimentation stage is *coalescing*. I define *coalescing* as *the process of transformation that occurs when novel features and diverse ideas are consolidated into an issue prognosis for the firm that connects the interests of the firm to those of external actors and places beyond the organizational boundary.*

Despite a new reconfigured framing and situated understanding of the problem, agents' arrival at a prognosis is dependent on further framing and in particular, *coalescing* with collaborators around a shared sense of *how* to formulate an appropriate response from their diagnosis. That is, agents' interactions with other actors and novel (scientific and physical) interpretive material didn't simply involve the incorporation of external views, but the influence afforded by these mechanisms of meaning in crafting a solution. The resulting prognostic framing was hence an emergent outcome of a process of shared discovery, opportunity construction and meaning-making. Since the grand challenges in question were characterized by a multiplicity of social and material interdependencies, the appropriate action to be taken by the firm was determined to be one that involved a role in advancing collective adaptation to a shared risk.

Concluding the illustration of the Max&Co case in this stage, agents discovered how the "absolute leaders" of water efficiency within their supply chain remained subject to water stress due to their location within an insecure catchment. Through their interactions in the field and with partners, agents could also see how farmers could benefit significantly from collective actions that enhanced the management of their shared water resource. This included for instance, helping to remove alien invasive species that improved the ecosystem services and availability of water in the catchment. Hence the emergent lesson for agents at Max&Co was that individual actions were insufficient within a system of shared water users. A response based on collective action and stewardship was widely applicable across the firm's supply chain and a potentially powerful use of influence in areas where the water resource (and hence retail supply) was at risk. Furthermore, by coalescing around this prognosis with partners, the framing of Max&Co relative to the issue was transformed, privileging a longer-term investment and role in collaboration for the firm rather than one focused on control and avoidance

STAGE	SUB-PROCESS	CONTEXTUAL OPPORTUNITY	LINKING TOOL	CASE	EXAMPLE DATA EXERPT
EXPERIMENTATION	Exploring <i>collaborating with external actors to test emerging issue framing and facilitate prognosis</i>	New partnership with two expert research organizations	Pilot study	SS	The project was a learning process and I think the key is multiple perspectives, different people coming together without an agenda. We didn't know what we'd get, we just knew if we started looking at this, we're going to get something, it's going to explain something to us (SA SS1.1)
		Existing farmer relationships and influence	Pilot project	WS	We worked out an area where we had the most power as retailers, our direct suppliers (SA WS1.1) Without telling anyone [we approached them to test our ideas] (EX WS1.2)
		Existing relationship with experts, new methodology	Pilot survey	MC	We started with that piece, we water footprinted growers in five countries... it was very very difficult (SA MC1.5)
	Situating <i>locating the context of the frame and action within a specific social, ecological, or geophysical context and in so doing, embedding agency in place</i>	Material elements	Place-based assessment site visits and scientific models	SS	It was the science model. They look at the coastline and what sand mining does to the wave run-up. If you put that together with the insurance, you quickly realise that [by] removing the foredunes..the [flood] water just comes in... but it does require a different way of looking at it (SA SS1.2).
		Material elements	Place-based assessment site visits and scientific models	WS	You need to be more hands-on, the whole farming system becomes a lot more dynamic. It's not as remote. It's not office stuff this; you don't need a computer. You have to walk the fields, you have to make daily decisions around inputs and so that has changed (EX WS1.2)
		Material elements	Place-based assessment site visits and scientific models	MC	Particularly with water, you can't be an island of perfection... you have farming on upper catchments planting on the riparian land, which was causing erosion, which was reducing the quality of the water, which was killing the fish that the fisherman depended on. So, you know it's about understanding the entire ecosystem (SA MC1.5)
	Coalescing <i>transforming novel and diverse ideas into a consolidated prognosis for firm actions reflective of interests beyond the organization</i>	Collaboration/ partnerships	Retreat	SS	Let's start playing a role [on the ground], let's collaborate, let's partner with government because by partnering we can jointly ensure the impact is reduced (SA SS1.5)
		Collaboration/ partnerships	Local ambassadors and engagement	WS	[We used] those pilot sites, or pilot farmers, to be ambassadors (SA SS1.8) It means being a good neighbour..having a landscape approach... we help Woodstones become champions in the area... to support their suppliers to become champions in that area (EX WS1.3)
		Collaboration/ partnerships	Collective action and stewardship activities	MC	In these cases we encourage our suppliers to be part of the Lake User Group... our role is to demonstrate the art of what is possible... we encourage collective action [and].. try to develop a model that can be replicated elsewhere (MC1.5)

TABLE 3. STAGE 2 (EXPERIMENTATION): SUMMARY OF THEORETICAL MODEL FEATURES AND TOOLS FACILITATING FRAMING FOR EACH CASE

### 5.1.3 STAGE 3 – ENACTMENT

In the final stage of issue advancement, the focus is on *Enactment*. This involves embedding the consolidated prognosis and renewed framing within the issue field and firm. In addition to the continued involvement of internal and external allies, this stage also involves new actors who are able to extend the action and influence of the collaborating group. Collaborators (including agents and allies) interact with those outside of this initial grouping to extend their discoveries about the issue for the benefit of the firm, the field and themselves as advocates of this issue. Both in working externally and internally to the firm, the results of these efforts can be seen through further translation (e.g. by additional departments) and deeper integration (e.g. by departments already involved) of new meaning systems into policies, practices and strategy at the firm.

***Elevating.*** The first sub-process in the enactment stage is *elevating*. I define elevating as agents' efforts to drive issue advancement and change beyond the organization into the industry and/or issue field.

In this penultimate step of the issue advancement process, agents' focus is on *elevating* their diagnosis and prognosis to external actors in the industry and field. They do so by creating new opportunities, such as public events, or harnessing existing opportunities, such as participation in business coalitions, to spread and legitimise their now-established ideas and action frame. Their intention in targeting these external actors and forums is multifold. First, they seek to anchor and further activate their signification work within these communities by sharing experiences, highlighting benefits and advocating for the extension and further application of these ideas among other actors because 'they can't do it on their own'. Second, agents also reinforce their position and profile within the industry and issue field, which in turn offers added legitimacy and reputational benefits for their efforts in firm internal re-framing and action. Finally, agents also continue their interactional framing among these external groups to seed further opportunities for impact and influence within the firm, around their original focal issue, as well as others.

For example, Woodstones agents worked on elevating or sharing the lessons from FutureFit to other actors, including other business organizations in private meetings and public events. They also worked with partners to expand the reach of agents' issue advancement to other communities and landscapes beyond those originally targeted by the initiative, such as dairy suppliers and landowners outside of their supply chain. As a result, Woodstones and its agents became regular invitees to major issue field events and platforms (e.g. national and international business initiatives dealing with grand challenges) and were seen as advocates for the issue in public and other fora, gaining international recognition for their work.

**Installing.** The second sub-process in the enactment stage is *installing*. I define installing as the efforts of agents to integrate their new frame and further action on grand challenges into firm policies and practices.

Although agents are continuously working to generate attention and integrate grand challenge issues into the firm frame of reference throughout the issue advancement process, it is through their final efforts at *installing* and integrating their reconfigured frame into the business of the firm that the process has reached its zenith. At this level, the foundation laid by agents is sufficiently enabling for the issue diagnosis and prognosis to be accepted and adopted by organizational leadership and other organizational members and be lodged into organizational plans, policies and practices going forward. Further, organizational members' definition of what constitutes the organization's objectives, salient context and stakeholders and relevant practices have been expanded to correspond to agents' renewed framing.

At Woodstones, for instance, agents' interactional framing culminated in activities that not only embedded the FutureFit program and its benefits within the fabric of the firm, but also expanded its potential reach to other departments and activities. What "happened in food started to happen for the greater business" and be integrated into "the brand itself" and how Woodstone conducted their business (EX WS2.8). Through the efforts of agents and allies within the firm, the resulting priorities and perspectives on the issue were integrated into individual and unit scorecards, the organization's vision, mission and values and financing model to ensure ongoing investment into supply chain actors. They were also built into new

partnership contracts, targets and strategic investments aimed at improving the ecological sustainability in the landscapes in which they work.

STAGE	SUB-PROCESS	CONTEXTUAL OPPORTUNITY	LINKING TOOL	CASE	SAMPLE DATA EXERPTS
ENACTMENT	Elevating <i>driving issue advancement and change beyond organization to industry and/or field</i>	Internal sentiment Sector-wide challenges	Industry appointments, public speaking events, new forums and activities	SS	Everybody is being very me-focused, we would be w forward...(so) we started the industry forum around management because again, we realised we can't do need the entire industry to be part of it (SA SS1.6).  So we went to all the factories, major factories, the o then we selected a major supplier or two sometimes practices. And we went there. And we told them wh wanted their input...for them to see that it is a long-t different model for flowers...for mushrooms... for wi WS2.5).
		Reputation and supplier community	New program areas additional suppliers	WS	There is a whole system side of it that you need to ch to change in several different ways. So, supply chain changing the suppliers that we buy directly from is to up with others to drive collective change through all chain but the further away from me I get, the more I others ... (SA MC1.1).
		Profile in issue field Sector-wide challenges	New initiatives and additional collaborations	MC	We realised that we need to protect SunSure's book same time, we need to work with others to better th SS1.5) [New strategy:] Manage the risk pool by collab stakeholders on shared risk management (SS Docs).
	Installing <i>integrating new frame and issue responses into firm policies and practices</i>	Changing strategy and policies	New Targets	SS	By implementing scorecards, it's not just my job or a job, but as many people as possible across the organ are starting to get that right where, from your store your foods team... we also marry that with the soft, i about how these things connect with the values of th of hard and a bit of soft together (SA WS1.7)
		Changing strategy and policies	Integration into renewed targets, organizational identity	WS	I am making sure that we are embedding their appro way that we buy, rather than [having it] sitting as a s MC1.5). [New Policy:] Put in place water stewardship material and at-risk watersheds by 2020 (MC Docs)
		Changing strategy and policies	New Targets	MC	

**TABLE 4. STAGE 3 (ENACTMENT): SUMMARY OF THEORETICAL MODEL FEATURES AND TOOLS FACILITATING FRAMING FOR EACH CASE**

# CHAPTER 5: DISCUSSION

## 1.0 INTRODUCTION

In this study, I focus on how issue framing by firm employees affects organizational action on grand challenges. In order to understand this phenomenon, I examined the signification work of agents at three different firms as they successfully advance social-ecological issues within and beyond the boundary of the firm. Following a grounded approach to theory development, my research generated a processual model of signification work by firm-internal change agents and findings that contribute to three distinct but interrelated areas of management theory.

This chapter outlines my contributions to the field. I begin the chapter with a brief global summary of the literature to which my model and theoretical contributions are directed (Section 2.1). I then follow with three sections (2.2-2.4) explaining each of my main contributions in greater detail, first by outlining relevant gaps, debates and omissions from current scholarship in each particular area and then describing the corresponding theoretical implications of my research findings. In the remainder of the chapter, I outline the limitations of my study (Section 3), and suggested areas of future research (Section 4). I then end the chapter with a brief summary in Section 5.

## 2.0 CONTRIBUTIONS TO THEORY

### 2.1 OVERVIEW

Although a more recent feature of management studies, scholarship on social issues, or ‘social problems’ as they are widely referred to among sociologists, have long been at the core of research on social movements (Snow, 2013). In this literature, researchers have concentrated on the processes involved in turning an isolated individual concern or grievance to a shared “issue” at the group and/or societal level (Best, 2013). The emphasis on issue construction, as this process is referred to, has also recently been adopted by an

increasing number of management scholars interested in societal challenges (e.g. Sonenshein et al., 2014; Gray et al. 2015; Reinecke and Ansari, 2016). The issue focus of this literature holds relevance for theory on framing, defined as “an active processual phenomenon that implies agency and contention at the level of reality construction” (Benford and Snow, 2000, p. 614). In my study, I follow others in understanding framing as meaning-making and the dynamic and agentic processes involved in issue construction, as central to actors’ pursuit of improved societal conditions or institutional change (Benford and Snow, 2000; Best, 2013; Fligstein and McAdam, 2011; Phillips and Lawrence, 2012; Gray et al. 2015).

However, since the above definition was advanced in Benford and Snow’s (2000) popular review article on framing theory, this body of research has been criticized for its dominant focus on ‘top down’ reconstructions of “packaged outputs and relatively stable meaning systems” (Cornelissen and Werner, 2014, p. 183), its “narrowed... gaze to framing dynamics within the context of political (contests and) action” (Cornelissen and Werner, 2014, p. 203), and disproportionate focus on structural position, skills and ‘spin’ as opposed to a process “contingent on the framing of others and the broader... opportunities and constraints afforded by a particular field” (Werner and Cornelissen 2014, p. 1453). As a result, we have learned little about attention to and treatment of less established and institutionalised ideas in firms (Sonenshein, 2014; Reinecke and Ansari, 2016); cooperative – rather than conflictual-approaches to meaning construction among different types of actors (Garud and Karnoe, 2003; Mair et al. 2016), and; how locally situated and contextualised framing efforts and processes can condition opportunities and connections across individuals, groups and fields (Ansari et al., 2014; Lawrence and Dover, 2015).

With the aim of gaining a better understanding these aspects of framing and issue construction in this study, I adopted an actor-centric approach to my analysis, resulting in three distinct but related areas of contribution to the literature. Firstly, by exploring actors’ treatment of grand challenge **issues** in detail and the places where these issues manifest, I contribute to scholarship focused on establishing emerging systems of meaning rather than the negotiation of institutionalised and dominant frames as well as

the notion of ecological materiality as a feature of issue-focused meaning work (Litrico and David, 2017; Meyer and Hollerer, 2010; Monteiro and Nicolini, 2015; Whiteman and Cooper, 2011). Second, my analysis of the **interaction** between firm and non-firm actors revealed a relational dynamic that contrasts with much of convention in the management and social movement literatures by emphasizing collaboration and co-construction over contestation (O'Mahony and Bechky, 2008; van Wijk and den Hond, 2013). Third, I add to research on framing by explaining how an orchestrated interplay between *issues*, *interaction* and **contextual opportunities** mediated by lower-status firm-internal actors achieves influence in and beyond the organization (Cornelissen and Werner, 2014; Sonenshein, 2016). In the next sections, I provide further discussion on each of these in turn.

## 2.2 ECOLOGICALLY MATERIAL AND PLACE-BASED ISSUES

My first contribution addresses ecologically material and place-based issues as the focus of organizing. Over the last several years, there have been repeated calls for increased attention to large-scale societal ills by managers and organizational scholars alike (Ansari et al., 2014; Bansal, Smith, and Vaara, 2018; Colquitt and George, 2011; Eisenhardt et al., 2016; Howard-Grenville et al., 2014). Despite this growing recognition and resultant area of scholarship however, the breadth and depth of management insights on social issues remains limited (Sonenshein, DeCelles, and Dutton, 2014). Notably, this gap is even more pronounced when focusing on social issues linked to major shifts and changing dynamics in the physical world but with significant implications for humanity, or '*social-ecological*' grand challenges (George et al., 2015; Hoffman and Jennings, 2015a; Kallio and Nordberg, 2006; Whiteman et al., 2013).

Scholars have suggested that the failure of existing approaches to address the "idiosyncratic characteristics" and "causal ambiguity" typical of coupled social-ecological systems and the issues they give rise to is a key barrier to further theoretical progress on these topics (George et al. 2015p. 1598; see also Bansal and Knox-Hayes, 2013; Ferraro et al., 2015; Hoffman and Jennings, 2015). As highlighted at the outset of this dissertation, the

relative silence by scholars on the realities of the natural world thus serves as a contemporary reinforcement of Gladwin and colleague's (1995) 25-year old argument that "most management theorizing and research continues to proceed as if organizations lack biophysical foundations" (p.875) or what Shrivastava (1995) called the 'de-natured view' of research on organizations and management. In an effort to respond to these lacunae, my study emphasizes the role of ecologically material influences on organizational interpretation and action.

Since extant research has taken as its primary departure point the supremacy of the market and financial performance in the strategies and activities of firms, this has tended to skew scholarship away from attention to other possible influences such as material elements or those originating within dynamic social-ecological systems (Kallio and Nordberg, 2006; Linnenluecke and Griffiths, 2013). As a result, what we understand about interests and influences are "typically rather narrow when compared to the 'wicked' problems facing global society such as climate change" (Zietsma et al. 2017, p. 424; see also Wittneben et al., 2012;). As a result, issues research, such as that on "issue-selling" has mainly considered only a narrow sub-set of issues already well within the boundaries of conventional organizational attention (e.g. Dutton, Ashford, O'Neill, and Lawrence, 2001; Howard-Grenville, 2007). In these studies, as in framing theory more broadly, success in issue advancement is thus generally attributed to social skill, an appeal to 'insider' status and familiar referents within organizations (Cornelissen and Werner, 2014; Howard-Grenville, 2007).

The reason this presents a problem for research on how organizations are addressing social-ecological grand challenges is that the nature of issues – and by extension, the idiosyncratic characteristics and complex dynamics that they come with - matters for meaning-making. In emerging issue fields such as those around the grand challenges I study here, the "rules of the game do not yet exist" (Fligstein and McAdam, 2011, p. 11) and hence, meaning-makers do not have the same 'pull-down menu' of interpretive features and options or 'insider status' from which to advance their interests (Cornelissen and Werner, 2014). Both the problem and the solution are unclear and in need of more than a reconfiguration of available tools and resources within the firm to define and determine

appropriate action (Etzion et al., 2017). Yet, the uncertainty and ambiguity that come with grand challenges and the emerging issue fields around them, prompts reflexivity and interpretive agency among the actors who are interested in them - they are looking for answers (Zilber, 2002; Sonenshein 2014). Hence, while social skill is involved, my research emphasises sources of agency thus far underexplored in the literature. In particular, I argue that the material nature of the issue itself play a “‘silent’ but essential role” in meaning-making (Monteiro and Nicolini, 2015, p. 24; see also Whiteman and Cooper, 2000). For instance, my study highlights how, in their quest for meaning around novel and ‘exogenous’ social-ecological grand challenges, signifying agents’ shift their own, and later, fellow organizational members’ locus of attention to meaning-making resources beyond the firm itself (Nigam and Ocasio, 2010; Pogutz and Winn, 2016). In so doing, agents and allies confront both the objective ecological and physical materiality of natural systems as well as mediated information regarding these systems with external allies to better understand the grand challenge the firm is seeking to address. In so doing, they discover and attach significance to novel interpretive spaces and physical places where the unique and physical characteristics of grand challenges are more apparent (Weick, 1995; Whiteman 2010; Shrivastava 1994; Lawrence and Dover, 2015). They see evidence of change in the landscape, hear of people’s experiences with shifting conditions, interpret scientific models of natural processes and experiment with new interpretations and approaches accordingly (Ferraro et al. 2015; Whiteman and Cooper, 2011; Nilsson, 2015). In addition to helping explain the problem in meaningful ways these experiences also directly serve the practical aims of bridging issue diagnosis and prognosis (Carmack, McLaughlin, Whiteman, and Homer-Dixon, 2012; Gladwin et al., 1995; Lawrence and Dover, 2015; Purser, 1995; Shrivastava, 1995). As a result, these episodes of attention and their key features also become a resource to, and constituent part of signification and issue advancement (Haack, Schoeneborn, and Wickert, 2012).

In addition to this pragmatic role, the now salient material referents presented by ecological information also serve a structuring purpose by helping to fill the interpretive void left by the lack of institutionalised meaning systems. By providing not just “raw materials” but also “guidelines” to the process of meaning-making (Hallett and Ventresca, 2006 p. 213), these resources help to amplify and facilitate the appreciation of grand

challenges' idiosyncratic character in re-framing. Actors then reconfigure their disrupted frame to situate key features of social-ecological systems and relationships between them into a new conceptualisation, one that incorporates both the issue and firm (Ansari et al., 2014; Hahn, Preuss, Pinkse, and Figge, 2014; Hoffman and Jennings, 2015; Whiteman et al., 2013). Put differently, ecological information isn't simply 'slotted in' to existing frames, but appreciably disrupts extant frame structure and content to accommodate a new set of meanings and scope around which to organize (Hahn, Preuss, Pinkse, and Figge, 2014). As a result, the perception of firm interest becomes expanded to beyond its direct locus of responsibility (Reinecke and Ansari, 2016) and well-defined 'endogenous' commercial boundaries (Stephan et al. 2016) and systems of meaning to better reflect the social-ecological systems in which it is embedded (Pogutz and Winn, 2016). As signification work progresses between defining the problem and solution (diagnosis and prognosis), agents and allies are operating with an expanded frame scope and set of influences, including a sense of possible interdependencies between the firm and social-ecological systems.

By demonstrating how the attention to the physical world shapes reconfigured firm frames and resulting action (Boxenbaum et al. 2018) my research suggests a more distributed account of agency than is otherwise offered in the literature (Shaw et al. 2018; Ferraro et al. 2015). Specifically, I show how, particularly in the second stage of issue advancement, confrontation of the material features of social-ecological systems can affect frame structure, content and as a result, perceptions of the possibilities for action (Whiteman and Cooper, 2011; Boons, 2013; Hahn et al. 2014; Leonardi, 2013). Hence, in my study, ecological dynamics and interpretations of the natural world do not serve only as 'triggers' or "antecedents to social action" (Boons, 2013) or as even 'ingredients' of that change, but critically, as transformative mechanisms that help to expand actors' capacity to navigate the complexity of organizing around grand challenges (Stigliani and Ravasi, 2013). Further, I argue that by disrupting the limits of current frames, renewed interpretations and meanings come one step closer to mirroring the multifaceted, dynamic and boundary-spanning character of the issues themselves (Hoffman and Jennings, 2015, Ferraro et al. 2015).

My findings thus complement Shrivastava and Kennelly (2013)'s theoretical conceptualisation of "place-based enterprises" where, as a result of transformation, firm interests extend beyond "the provision of products and services or the use of internal resources, but to the [economic, social and environmental] well-being of places" (p.96; see also Lawrence and Dover, 2015). I also find resonance in my work with Guthey and colleague's (2014) assertion that research on physical environments and 'sense of place' can help to highlight human-environment relationships and uncover new dimensions of sustainability that extend beyond conventional views of the organizational environment. In particular, my work provides one avenue into the "empirical research frontier (that details) how the social realm and the material realm become intertwined, and what affects these processes have on organizational practice" (Boxenbaum et al. 2018, p. 601).

Finally, these findings provide an important counter-point to prior studies which show how social issues inhibit firm action (Margolis and Walsh, 2003), by furthering the notion of 'material agency' and material 'affordances' for action (Leonardi, 2013). Viewed through the lens of this literature, my study offers a rare application of this concept beyond the domain of technological artifacts (Kaplan and Tripsas, 2008; Orlikowski and Gash, 1994; Stigliani and Ravasi, 2012) as well as largely unrealized empirical and theoretical support for Boons' (2013) assertion that material features of the ecological world can "have a (direct and indirect) impact on the formation of beliefs and desires as well as the opportunity set" within organizations (p. 286). That is, they afford, or facilitate, strategic responses which allow for "novel ideas to be incorporated into, merged with, or replace established interests norms and beliefs" among actors (van Dijk et al. 2011). Distinguishing from conventional to novel (social or ecological) issue in framing studies is therefore critical (Wickert and de Bakkert, 2018).

Also and in adding detail to Boons' (2013) conceptual piece, I argue that by foregrounding actors' perception and confrontation of physical conditions, we can gain further insight into how frames are developed (Cornelissen and Werner, 2014) and in particular, how they are shaped to incorporate the material dimensions and perceptions of social and ecological relationships (Hahn et al., 2014; Monteiro and Nicolini, 2015; Whiteman and Cooper, 2011; Boxenbaum et al. 2018). As in the affordances literature, my argument is

that material conditions provide critical content to meaning-making and that these can be configured alongside other meaning-making resources to support (but not determine) enactment (van Dijk et al. 2011). In so doing, my research also suggests that scholarly attention to ecological materiality and place might play a key role in reflecting the “big picture” demanded of problem-solving around social-ecological grand challenges (Whiteman et al. 2013 p. 309) and the integration of the natural world and natural sciences into organizing in response to complex and emerging issue fields (Whiteman et al. 2013; Ferraro et al. 2015).

### 2.3 SOCIAL INTERACTION AS A BASIS FOR MEANING WORK

My second main contribution explains “how interactions among actors can shape the expression of grand challenges” (George et al. 2016, p. 1891). Scholars have acknowledged the role of fields as relational spaces that foster interaction between and across individuals and groups. These interactions between actors at micro and meso levels it is argued, are “the building blocks of macro level actions” (Gray et al. 2015, p. 116), the point at which “fields come alive” (Wooten and Hoffman, 2018, p.139) and set the meanings, structures and boundaries that define institutions (Zietsma et al. 2017). Indeed, there is a rich literature on social interaction as it relates to societal problems (de Bakker et al. 2013) as well as organizational and institutional development and change (Lawrence et al. 2011). However, due to a disproportionate focus on social position as a departure point for understanding interaction, these studies tend to investigate the successes or failures of actors working ‘for’ or ‘against’ these systems, or more precisely outcomes, over interaction dynamics and processes (Wooten and Hoffman, 2017). One result of this orientation is that the accomplishment of change in fields and organizations, or the lack thereof, is often attributed to narrow categories of actor types and structural positions, as well as individual skill at marketing clear messages that align to existing systems of meaning and interest as opposed to other potential factors (Fligstein and McAdam, 2011; Cornelissen and Werner, 2014). Another is that research questions and scenarios that fall outside these conventions - such as lower status firm internal actors driving issue

advancement - are left to the margins of extant theory (e.g. Fligstein and McAdam, 2011; Wooten and Hoffman, 2017; Sonenshein, 2014).

For instance, much prior research on social issues identify actors as being from one of two opposing poles or categories<sup>4</sup> of status, influence and hierarchy within institutional or organizational fields. In a typical examination, the ‘incumbents’ or ‘insiders’ are the powerful elites understood to govern and reinforce the dominant meanings and systems of rules within a field, and; the ‘challengers’ or ‘outsiders’ occupy peripheral positions and seek to challenge or disrupt incumbent actors or the structural-procedural features of the field (Levy et al. 2001; Benford and Snow, 2000; Fligstein, 2008; Fligstein and McAdam, 2011; Hensmans, 2003; Meyer 2004). Challengers ‘wage war’ to displace dominant players in the market or to address an ‘injustice’ for which the state or a firm is responsible (Best, 2013; McCammon et al. 2007) and incumbents (ab)use their disproportionate economic and political support to maintain existing interests and the status quo (Weber et al. 2013; Banerjee, 2010; McDonnell and King, 2013). The impact of such labelling is that the literature has largely developed around “typical categories of action” for each actor (Suddaby et al. 2017, p. 227) including in particular, how “conflict frequently motivates interactions between those who have power and those who do not” (King and Walker p. 134; see also Garud et al. 2007).

I argue that this categorization of actor types isn’t only problematic because of its limited acknowledgement of actors’ multiple social positions (e.g. as members of families or communities) and potential influences “both inside and outside of organizations” (Sonenshein, DeCelles and Dutton, 2014, p. 8) but also because it hinders our understanding of various social dynamics and what drives them. For instance, we know much less about how actors collaborate to develop shared understandings, and work towards ambitious field goals (Grodal and O’Mahony, 2017; van Wijk et al, 2018). We also know very little about how the type of issue can shift the strategies employed by managers

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<sup>4</sup> There is also an notable and growing body of work on middle managers (e.g. Rouleau and Balogun, 2011; Balogun and Johnson 2004). However, this literature has not yet provided significant insight into the processes involved in meaning-making by these actors (Balogun and Rouleau, 2017) or their involvement in social issue advancement (Sonenshein, 2016).

to gain widespread support (Wickert and de Bakker, 2018). A pre-occupation in the literature with structural determinism and dramatic episodes of contention between actors (Best, 2013; Meyer, 2004) has therefore obscured the existence of and attention to the productive dynamics of fields that form around social issues rather than technologies or markets (Hoffman, 1999; Wittneben et al. 2012). Unlike more structured fields, the driving force, and often purpose of issue fields is to construct meanings and shape emerging practices in areas that affect multiple actors (Zietsma et al. 2017; Wooten and Hoffman, 2018; Hoffman, 1999). We also know from the literature that the unsettled nature of issues and the fields around them can drive some actors to reflect more explicitly and critically about the meanings underpinning interpretation and action (Zilber, 2002) however, little research examines what this looks like and how it affects issue construction and advancement.

My study therefore contributes to research on social interaction by illustrating how a mutual concern for social-ecological issues provides the salient context for some actors to “interact more frequently and fatefully with one another than with others” (Wooten and Hoffman, 2018, p.2) and how this interaction in turn “allows for new modes of corporate engagement to emerge” (Reinecke and Ansari, 2016 p. 302). I argue that although the actors involved in this effort may not be exceptional in terms of position and or skill, their interest in grand challenges and common desire to understand, interact and take action around these issues (Ansari et al. 2014; Ferraro et al. 2015; Dorado, 2005) makes them unique among their peers (Sonenshein, 2016). Hence a key difference between my study and others is the focus not “merely on action but *interaction*” and its illustration of the point that “it is not simply what people ‘do’ that matters but how they do so ‘together’” (Hallett and Ventresca, 2006, p. 216) and, I would add, ‘for what purpose?’ This line of argument is consistent with more recent scholarship that links issue, purpose and social practices by managers (Wickert and de Bakker, 2018) and highlights the role of managers in achieving transformational change (Girschik, 2018).

In my study, actors come together to solve a problem through shared learning and experimentation. While the managerial literature has “focused almost exclusively on diagnostic frames [where] the assumption has been that once managers make a diagnosis

they will know which solution to apply” (Kaplan, 2008, 737), my study suggests a much less definitive and linear path to determining appropriate action on grand challenges (Reinecke and Ansari, 2016). For instance, although the signifying agents in my study may have started out with the intention of resourcing their issue diagnosis and the disruption of current framings by soliciting inputs from external actors (much like a company might do with consultants) they quickly find the scope of their efforts changing. This is the case because the task before them is “not simply assessing the importance and urgency of an issue, but rather constructing the issue itself” (Litrico and David, 2017, p. 989). Hence when the current frame has been disrupted and firm has been readied for re-framing, agents need a different kind of help, one that involves collective meaning-making and problem solving. In this way, my study explains how grand challenge issue framing can become a collective effort, set in motion by the interest and influence of signifying agents, but not singularly conceptualised by them.

Hence, when viewed thorough a relational lens, my research highlights a further implication of social interaction – that the co-construction of grand challenge issues and the definition of appropriate action can also serve as a mechanism for the reinterpretation of conventional boundaries of organizing. More specifically, I argue that by bringing together different knowledge types, experiences and interpretive frameworks to the process of issue advancement, the collective “capacity to imagine alternatives” and availability of reconfigured opportunity sets is advanced (Emirbayer and Mische, 1998, p. 963). My study therefore offers support for the assertion that, as firm internal “actors invite outsiders to become part of the process” they are “thereby changing the fundamental constitutive dynamics” of the meaning-making process (Garud et al. 2010, p. 766). In particular, I argue that social interaction shifts the structure and definition of what is salient and meaningful for constituent actors, not only to acknowledge actor interdependencies (Fligstein and McAdam , 2011) but to one that calls into question the relationship between the firm and the broader social-ecological system (Pogutz and Winn, 2016). What was once considered ‘exogenous’ or ‘endogenous’ is no longer given, nor are the clear distinctions between agents as drivers of meaning and allies as targets of meaning or diffusion (Zietsma et al., 2017).

In this way, my findings offer an important alternative to the dominant view of change as a battle between powerful insiders and combative outsiders. Put differently, just as social interaction around societal issues “cannot be solely understood through the lens of contestation” (de Bakker et al. 2013, p. 575), “issue adoption [cannot be understood] as something primarily driven by external constituents or a firm’s top managers” (Sonenshein, 2016, p. 350) or necessarily as a linear and directed process of achievement by individual and intentional agents of change (Lawrence et al. 2009). In contrast to studies of this nature, my research adds insight into the notion of “unexpected allies” by examining the mechanisms involved in establishing “productive working relationships” between diverse sets of actors (O’Mahony and Bechky, 2008 p. 455). These relationships don’t only provide the basis for meaning-making, but for the mutuality of experience between actors to be better understood.

In this way, the diversity of perspectives and positioning of actors from different organizations and institutional contexts in my case proves an asset to meaning-making and problem-solving, particularly as collaborators draw on their collective contextual knowledge for continued forward movement and over time, scaling of local efforts (Reay et al. 2006, p. 994; Ferraro et al. 2015). In addition, this interaction serves to “build agreement around the interconnectedness of actor fates” around grand challenges, as well as a “shared understanding of how to jointly address the problem” (Ansari et al., 2014, p. 1035). I thus argue that rather than emphasizing contestation and conflict or the signification work involved in villainizing firms or mobilising victims, my study highlights the transformative potential of social interaction, where constructive and deliberative dialogue can create the conditions for consensus and collective action on ambiguous and emerging issues.

#### *2.4 CONTEXTUAL OPPORTUNITIES AND THE ROLE OF SIGNIFYING AGENTS*

My final contribution details underexplored aspects of theory on issue fields and frame development at the level of interpretive context, or “the mechanisms linking structures and configurations to agency and action” (Kriesi, 2006). Extant research tends

to present frames as something akin to menus of meaning, wherein the role of the signifying agent is to select and diffuse particular aspects of an extensively programmed, static and pre-existing institutional system of order for onward transmission (Schneiberg and Lounsbury, 2017; Werner and Cornelissen, 2014). As a result, this literature offers little insight into the situated processes involved in actors' efforts to renegotiate their context and how this in turn, shapes interpretation and reality construction (Powell and Rerup, 2016; Zilber, 2002), especially in emergent contexts (Lawrence et al. 2011). Although some research acknowledges that corporate actions on issues like climate change may stem in part from the context in which they operate, extant scholarship mostly treats firms as being divorced from their broader social, political, and as indicated above, physical context (Wittneben et al., 2012). Further, it has been argued that such influences have often been depicted by scholars as "circulating at the societal level away from actors' reach" (Litrico and David, 2017, p. 989). Disputing these approaches, an increasing number of scholars have been emphasizing that these "contexts are not simply back-drops for organizational activity" (Howard-Grenville, 2007, p. 560) or a vacuum in which interpretation and action occurs (Taylor and Van Every 2000). Instead it is asserted that these contexts "constitute the very meaning actors' draw upon as they act" (Howard-Grenville 2007, p. 560; see also van Taylor and Every, 2000).

In offering some details as to how context is involved in framing, scholars have suggested that agents can work to navigate different 'worlds of meaning' (Boxenbaum, 2011; Lawrence et al. 2011) and "select elements of [the] contexts in which they operate" (Gond and Boxenbaum, 2013, p.3) so as to "convert [their] situated circumstances into action" (Powell and Rerup, 2014, p.15). My analysis of the literature suggests that research which examines context therefore needs to attend to the situated influences, experiences and dynamic relationships within which signification work occurs (Lawrence et al. 2011; Schneiberg and Lounsbury). However, because of the apparent "neglect or at least lack [of] an explicit account of the embeddedness [of meaning-making] in space and time" (Weber and Glynn, 2006, p. 1639), many questions remain. Particularly relevant questions for my research therefore relate to precisely how this navigation of multiple meanings occurs, and what contextual 'resources' and process mechanisms are involved in the

mutual constitution of reality (Powell and Rerup, 2017) and shift in actors' frames (Ansari et al. 2014; Castro and Ansari, 2017).

On the question of contextual influences, I draw on the concept of 'opportunities' in my dissertation to explain how the conditions of the environment in which actors are operating can influence the resonance of different framings and perceived options for further advancement (Kriesi, 2006; Campbell, 2005). Although "contexts create both opportunities and constraints... management scholars have thus far focused on the latter" (Reay et al. 2006b, p. 978, see also Werner and Cornelissen, 2014). While not denying the existence of such constraints, my research offers an underrepresented and alternative perspective – one that highlights how contextual conditions can serve as resources to enhance agents' efforts, creativity and choices in issue advancement.

For instance, my research shows how broader structural opportunities such as the discourse around the global financial crisis can help employees to usher in new ideas, such as those relating to climate change, by emphasising shared risk. In my study, this is a particularly prominent aspect of the first stage of issue advancement – Introduction and Disruption - during which interested agents *leverage* objective opportunity structures to direct organizational members' attention to a particular issue. At its outset, this process appears similar to that described by Kingdon (2011):

As I see it, people who are trying to advocate change are like surfers waiting for the big wave. You get out there, you have to be ready to go, you have to be ready to paddle. If you're not ready to paddle, when the big wave comes along, you're not going to ride it in... (p. 165)

Using this analogy, the interested agents' in my study are like surfers, waiting for their opportunity to hop-on their surfboards when the time is right. The waves are the opportunity structures, or the objective structural features of the environment that 'trigger' (Maitlis and Christianson, 2014) or enable change – hence the term "opportunity structure" (McAdam, 2013, p. 2). However, my analysis also suggests that readiness to ride, or shift to the next stage of issue advancement, is a much more contingent and conjunctural process than described in the literature.

In my study, I show how multiple mechanisms become implicated as the issue advancement process progresses beyond the intention and interest of a particular agent (surfer) and an objective opportunity (wave). In particular, I have highlighted the social mechanisms of a collective of interacting actors and the material ecological elements influencing the meaning-making process, especially in the second stage of advancement. Thus, in my theoretical analysis (as above), the wave also has agency – both in providing the physical force of the wave and by shaping the surfer’s understanding of the opportunity to ride. The opportunity to ride may also be influenced by the surfer’s interaction with others, who may have better local knowledge, or be positioned earlier in the line-up. Together, these forces, combined with the surfer’s own skills, experiences and interests - for instance, around a particular type of wave, style or specific surf-spot - are essential, not only to being ready to paddle, but essentially in ‘creating’ the opportunity to ride itself. Seen in this way, the wave only exists when identified by the surfer or surfers, and a readiness to paddle, as well as a successful ride only occurs when the physical conditions and knowledge of such conditions are in place.

In my study, I understand these dynamics to be occurring within an issue field mutually constituted by actors interested in grand challenges and the material elements of the issues themselves. Meaning-making involves a recursive process of pulling down and translating meaning from the broader environment, while at the same time, building up meanings through social interaction and material affordances. The job of signifying agents is to mediate and feed unfolding perceptions, achievements and setbacks back into the framing process. Agents act as conductors orchestrating a set of contingencies “within the bounds that they create” (Hoffman, 2001, p. 30). Doing so, in turn helps them to overcome their own individual or organizational limitations, gradually modify the status quo over time (Reay et al. 2006) and orient interaction towards achievement in the context of different opportunities (Suh, 2001). Hence, the “fragile achievement” (Schneiberg and Lounsbury, 2017, p. 283) of issue advancement identified in my study appears to rest on the combination of a multiplicity of individual and collective efforts towards reflexiveness (Zilber, 2002), ecological sense-making (Whiteman and Cooper, 2000), creativity (Westley et al. 2013), sociability (Gray et al. 2015) and, shared problem-solving (Ferraro et al. 2015).

Indeed, while my study offers a more situated and distributed view of agency than is otherwise offered in the literature, it also points to factors that may help to moderate the success of efforts to advance grand challenge issues within the firm. Using my earlier example, what may initially appear to be waves beyond the capacity of an individual surfer to successfully negotiate, this may change with successful experimentation and learning. Similarly, any number of factors within my study are beyond the control of individual actors, however as different contingent parts become part of the process and agents and allies are able to negotiate these effectively, their 'readiness' for further advancement is improved. Agents and allies don't only draw on 'objective opportunity structures' but also create more subjectively informed opportunities of their own. In particular, my research suggests in particular that by cultivating greater attention to external influences, and interacting with external actors, the success of this orchestration is advanced. Even if they become pro surfers, their expertise won't guarantee that they will ride the wave properly if they don't understand local conditions to understand how the wave breaks.

### 3.0 STUDY LIMITATIONS

My experience of this study was one that required constant navigation of the dilemma facing researchers seeking to work within existing theory and while also stretching the boundaries of this theory in order to better capture the complex character of the phenomena of interest (Jennings and Hoffman, 2015). As a result, I often found myself in relatively uncharted terrain in management theory and having to draw creatively from various corners of the literature to find support for my findings (Shrivastava and Kenelly, 2015). This often involved an emphasis on developing foundations for further work over strict adherence to existing models, creating fewer opportunities for definitive and generalizable conclusions. My study therefore offers what could be described as "useful, if imperfect insights" into the areas of the literature I have applied and extended here (Hallett and Ventresca, 2006, p. 228).

In modelling complex systems and focusing on key relationships and influences, a notable challenge lies in incorporating sufficient details to make an informed explanation of that

model, while also simplifying it to the extent that the most important variables are being reflected. I also relied on the self-reporting of informants in this study, understanding them to be “knowledgeable agents” (Gioia et al., 2013) about the choices they made and influences behind these. However, some of these influences may have been less evident to interviewees or have had a differential impact among different participants of the issue advancement process. While I took steps to address this possibility through the addition of participant observation (e.g. in field trips) and external interviewees in my data gathering and triangulation in my methods, it remains possible that not all the factors influencing the interpretations and actions of actors involved in this study or even the most important ones have been captured. From an analytical perspective, my approach to addressing this possibility was also to focus on the mechanisms involved at different stages within the overarching process of issue advancement, highlighting their combined effect rather than attributing a change in state to any single factor (Langley, 2009).

Also, while my primary data collection for this study spanned three years and included secondary data from additional years, multiple perspectives and elements of ethnographic research, my study may have benefitted from a longer period of observation, a higher number of ethnographic observations and external actor interviews. While additional data may have offered greater richness and evidence of dynamism these still would have been subject to the availability of such dynamics to instantaneous observation (Powell and Rerup, 2016). Further, even further data would still be subjected to the emergent process of the methods of grounded theory applied here in which ideas “do not simply reside in the content of the data” (Charmaz, 2008, p. 135).

#### 4.0 SUGGESTED AVENUES FOR RESEARCH

While my approach to this study involved the theoretical sampling best suited to “fresh conceptual analysis and gathering data that can illuminate it” (Charmaz and Belgrave, 2018) it also brought into focus additional questions that would benefit from further research. For instance, despite calls for research approaches that account for the geophysical reality of the phenomena being studied (Hoffman and Jennings, 2015) this remains an area of significant untapped potential in the management field. Prior scholarship has already highlighted the existence of activities among some businesses

which, if examined in detail, could help to unpack the relationship between business processes and global ecological dynamics (Whiteman et al., 2013). One very clear example of this is in the recent move to identify measures of planetary boundaries for the application of businesses with global supply chains (Clift et al., 2017) and the opportunity for management scholars to contribute to this conversation. In addition, my research highlights how attention to context and the concept of ecological materiality (Whiteman and Cooper, 2011) could be more usefully applied in research exploring questions around coupled human and natural systems – both in the form of cues from the physical environment as well as through ecological knowledge and ecological knowledge holders (Pogutz and Winn, 2016). Another key avenue for such approaches lies in the growing interest in place-based scholarship. Here the application of the physical world as a source of meaning and potential influence in actor choices – for instance in corporate or community strategizing (Gasbarro and Pinkse, 2016; Shrivastava and Kennelly, 2013).

Second, my research raises questions regarding the relationships between individual actors and groups beyond organizations or institutionalised systems of meaning and structure, including in emerging issue fields (Zietsma et al., 2017). In particular, my study points out that, we still have a long way to go in terms of understanding action and indeed meaningful cooperation in and outside of organizations in the areas and at the scales demanded of grand challenge issues (Cooperrider and Dutton, 1999; Westley et al., 2013; Westley and Vredenburg, 1997). Applying this perspective, or the related theoretical concept of strategic action fields (Fligstein and McAdam, 2011) may prove fruitful in conveying the influence of multiple actors on change through an emphasis on interaction and shared purpose. Despite the promise of these two notions however, my study suggests that much more could be done by scholars interested in cross-organizational and field interactions by looking beyond the typical actor categories and position (e.g. of incumbent or challenger) that continues to limit the potential of research in this area. One example of recent work that begins to address these limitations is Besharov and Smith (2014)'s examination of how multiply embedded actors are able to transpose and translate multiple contexts into realities that work for the organization and field.

The notion of multiply-embedded actors may have also been a factor in my research. In my study, a number of the signifying agents involved in advancing grand challenges were

in roles that provided higher degrees of latitude in influence and choice than their peers. One question I was not able to address in my study is whether or not these senior managers of sustainability or strategy may have had greater “awareness of discourses in adjacent fields within society” (Werner and Cornelissen, 2014, p. 1465) and hence potential to spot or contribute to emerging contextual opportunities. In this sense, my research raises the question not only of the interests that may be motivating agents’ change efforts, but also a greater potential ability to defy embedded agency as well as leverage meaning and sources of influence beyond the firm (Fligstein and McAdam, 2011, Delbridge and Edwards, 2013). To what extent then, could social interaction and attention to context be part and parcel of the repertoire of tools available to actors of limited formal power in responding to grand challenges (Marti and Mair, 2009)?

Finally, my research points to the centrality of purpose in mobilizing for a better understanding of and change in response to grand challenges, including among researchers. My study reinforces other calls for management scholars and researchers to overcome the sense of conflict they have around the aim to engage in solving global problems, but also their sense that these contexts and questions are inaccessible to them (George et al. 2016). Indeed my study suggests that research that draws on unconventional perspectives and enables broad and significant research questions connected to the ‘real world’ can not only facilitate novel ideas and key processes to addressing these (Eisenhardt et al. 2016) but potential insights and engagement with these ideas beyond only the scholarly community. In particular and as an experienced practitioner who has turned to scholarship to answer such big questions, the notion of engaged scholarship (Van de Ven, 2007) offers one promising avenue to research and impact on grand challenges. Hence a key question for further exploration is: how can engaged research help to unpack these grand challenges in ways that benefit practitioners, while also helping to usher in “new ways of seeing” in management and organizational studies (Bansal et al. 2018)?

## CHAPTER 6: CONCLUSION

Despite widespread and increasing calls for attention to grand challenges by researchers and practitioners alike, our understanding of organizational responses to intractable social issues remains limited, particularly when it comes to businesses and the individual actors within them (Sonenshein, 2016). Drawing on the interactional framing tradition, my work illustrates the relational, constructive and contextual aspects of meaning-work – a perspective which is both underexplored in the literature and especially pertinent to social-ecological grand challenges.

In this dissertation, I aimed to shed light on the ways in which middle managers work to reconfigure corporate meaning systems to include grand challenges as relevant to and, requiring action by businesses (Haack, Schoeneborn and Wickert 2012; Reinecke and Ansari, 2016). In order to address this aim, I adopted an emergent and inductive research strategy to examining the efforts of firm-internal signifying agents at three case study firms.

Based on my data analysis, I developed a theoretical model of “interactional framing for grand challenge issue advancement” which that shows how the signification work of firm-internal agents progresses to expand the primary organizational frame over time. This work is carried out over three main stages: Introduction and Disruption; Experimentation, and; Enactment. In the first stage, agents find creative ways of introducing the grand challenge issue and demonstrating both its relevance to the firm and ill-fit with current approaches. In the second stage, agents work with internal and especially external allies to develop and test a new understanding of the issue relative to the firm and issue field context, including through attention to the material nature of the issue. In the third stage, this new understanding is effectively integrated into the meaning systems within the firm and is shared with others in the issue field. My findings also illustrate how the shared efforts of agents and allies is key to creating progressive readiness and opportunities for further issue advancement throughout the broader process of interactional framing.

My research contributes to the management literature by highlighting the contingencies involved in grand challenge issue framing and the role of signifying agents as mediators of multiple meaning-making influences. First, it demonstrates how the emergent and distinct character of grand challenge issues demands greater problem-solving by actors than is typically portrayed in the literature, including through attention to ecological materiality. Second, instead of focusing on conflict between actors occupying opposing positions relative to well-established institutions, it underlines how actors with shared interests can work together to construct new meanings and opportunities for these meanings to take hold in firm and field. Third, my dissertation paints a picture of agents as conductors, orchestrating a process of issue advancement based both on opportunities afforded by the broader environment, as well as those they and their allies have created.

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## APPENDIX A

<b>Interview No.</b>	<b>Date</b>	<b>Code</b>	<b>Position</b>	<b>Role</b>	<b>Case</b>
1	03/17/14	WS 1.1	Snr Manager, Food	Signifying Agent	Woodstones
2	03/19/14	WS 1.2	Snr Manager, Food	Signifying Agent	Woodstones
3	03/19/15	WS 1.3	Snr Manager, Food	Signifying Agent	Woodstones
4	03/25/14	WS 1.4	Snr Manager, Food	Signifying Agent	Woodstones
5	03/17/14	WS 1.5	Dept. Head, ERM	Internal Ally	Woodstones
6	03/25/14	EX 1.3	External Expert	External Ally	Woodstones
7	03/25/14	WS 1.7	Dept. Head, CSR	Signifying Agent	Woodstones
8	10/21/13	WS 1.8	Dept. Head, CSR	Signifying Agent	Woodstones
9	03/24/14	WS 1.9	Dept. Head, CSR	Signifying Agent	Woodstones
10	03/27/14	SS 1.5	Dept. Head, Stakeholders	Signifying Agent	SunSure
11	04/23/14	SS 1.4	Dept. Head, Partnerships	Firm Employee	SunSure
12	03/31/14	SS 1.6	Dept. Head, CSR	Signifying Agent	SunSure
13	04/16/15	SS 1.7	Dept. Head, CSR	Signifying Agent	SunSure
14	03/31/14	SS 1.1	Dept. Head, Strategy	Signifying Agent	SunSure
15	11/20/13	SS.1.2	Dept. Head, Strategy	Signifying Agent	SunSure
16	03/20/14	SS.1.3	Group of Signifying Agents (3)	Group	SunSure
17	04/02/14	SS 2.1	Team Member, Risk Services	Internal Ally	SunSure
18	04/03/14	SS 2.2	Team Member, Strategy	Internal Ally	SunSure
19	03/31/14	SS 2.3	Dept. Head, ERM	Internal Ally	SunSure
20	04/09/14	SS 2.4	Dept. Head, Risk Services	Internal Ally	SunSure
21	04/15/14	EX 1.2	Dept. Head, Food (Retired)	Signifying Agent	Woodstones

22	04/22/1 4	SS 2.6	Dept. Head, Financial Risk	Internal Ally	SunSure
23	04/09/1 4	SS 1.8	Snr Manager, Risk Services	Internal Ally	SunSure
24	04/09/2 1	SS 1.9	Snr Manager, Risk Services	Internal Ally	SunSure
25	11/16/1 3	SS 2.0	Snr Manager, Risk Services	Internal Ally	SunSure
26	04/08/1 4	WS 1.6	Team Member, Food	Firm Employee	Woodstones
27	04/09/1 4	SS 2.5	Team Member, Risk Solutions	Firm Employee	SunSure
28	04/23/1 4	EX 1.3	Program Head, Partner Org	External Ally	Woodstones
29	03/17/1 4	WS 2.3	Program Head, Food	Signifying Agent	Woodstones
30	04/22/1 4	SS 2.7	Snr Manager, Risk Services	Internal Ally	SunSure
31	04/24/1 4	WS 2.0	Team Member, CSR	Internal Ally	Woodstones
32	04/24/1 4	WS 2.4	Team Member, CSR	Internal Ally	Woodstones
33	09/10/1 4	EX 1.5	External Expert, Business	Issue Field Actor	Woodstones
34	08/07/0 9	EX 1.6	External Expert, Business	Issue Field Actor	Max&Co
35	07/09/1 4	EX 1.7	External Expert, Business	Issue Field Actor	Max&Co
36	07/09/1 4	EX 1.8	External Expert, Business	Issue Field Actor	SunSure
37	08/07/1 4	EX 1.9	External Expert, Business	Issue Field Actor	SunSure
38	08/07/1 9	EX 2.0	External Expert, Research	Issue Field Actor	Woodstones
39	10/10/1 4	EX 2.1	Program Head, Partner Org	External Ally	SunSure
40	10/10/1 4	EX 2.2	Team Member, Partner Org	External Ally	SunSure
41	12/04/1 4	EX 2.3	External Expert, Research	Issue Field Actor	Max&Co
42	05/08/1 5	MC 1.1	Director, CSR	Signifying Agent	Max&Co
43	12/05/1 4	MC 1.2	Director, CSR	Signifying Agent	Max&Co
44	12-09/14	EX 2.0	Program Head, Partner Org	External Ally	SunSure
45	12/11/1 4	MC 1.3	Team Member, CSR	Signifying Agent	Max&Co
46	12/12/1 4	MC 1.4	Dept. Head, Sustainable Business	Signifying Agent	Max&Co

47	12/12/1 4	MC 1.5	Director, CSR	Signifying Agent	Max&Co
48	15/12/1 4	EX 2.9	Program Head, Partner Org	External Ally	Max&Co
49	08/06/1 5	EX 2.1	External Expert, Research	External Ally	Max&Co
50	07/27/1 5	EX 2.8	Senior Executive	Senior Executive	Woodstones
51	07/27/1 5	WS 2.1	Senior Executive	Senior Executive	Woodstones
52	03/13/1 4	WS 2.2	Snr Manager, Communications	Organizational Member	Woodstones
53	09/06/1 5	EX 2.6	External Expert, Research	Issue Field Actor	SunSure
54	04/25/1 4	EX 2.4	Director, Partner Org	External Ally	Woodstones
55	04/25/1 4	EX 2.5	Director, Partner Org	External Ally	Woodstones
56	04/27/1 4	SS2.8	Dept. Head, Stakeholders	Signifying Agent	Sunsure
57	03/14/1 4	EX 2.7	Farmer	External Ally	Max&Co
58	03/14/1 4	WS 2.5	Dept. Head, CSR	Signifying Agent	Woodstones
59	03/13/1 4	WS 2.6	Program Head, Partner Org	External Ally	Max&Co
60	02/22/1 5	EX2.8	Farmer	External Ally	Woodstones
61	11/22/1 3	WS2.7	Dept. Head, CSR	Signifying Agent	Woodstones
62	10/20/1 0	SSs 1.0	Municipal Manager	Issue Field Actor	Sunsure
63	10/20/1 0	SSs 1.1	Municipal Manager	Issue Field Actor	Sunsure
64	10/20/1 0	SSs 1.2	Program Head, Local Government	Issue Field Actor	Sunsure
65	10/21/1 0	SSs 1.3	Expert, Research	Issue Field Actor	Sunsure
66	10/21/1 0	SSs 1.4	Councillor, Local Government	Issue Field Actor	Sunsure
67	10/21/1 0	SSs 1.5	Program Head, Local Government	External Ally	Sunsure
68	10/21/1 0	SSs 1.6	Program Team, Local Government	Issue Field Actor	Sunsure
69	10/22/1 0	SSs 1.7	Insurance Broker	Issue Field Actor	Sunsure
70	10/22/1 0	SSs 1.8	Insurance Broker	Issue Field Actor	Sunsure
71	10/23/1 0	SSs 1.8	Insurance Broker	Issue Field Actor	Sunsure

72	10/23/1 0	SSs 1.9	Commercial Insurance Client	Issue Field Actor	Sunsure
73	10/23/1 0	SSs 2.0	Private Insurance Client	Issue Field Actor	Sunsure
74	10/20/1 0	SSs 2.1	Snr. Manger, Risk Services	Internal Ally	Sunsure

