

# A SENSE-MAKING FRAMEWORK TO IMPROVE STAKEHOLDER ENGAGEMENT IN THE CONTEXT OF WICKED PROBLEMS

**Janet Ann du Preez**

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# **A SENSE-MAKING FRAMEWORK TO IMPROVE STAKEHOLDER ENGAGEMENT IN THE CONTEXT OF WICKED PROBLEMS**

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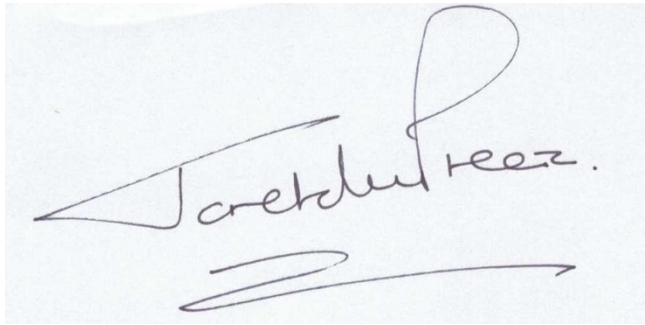
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**2022**



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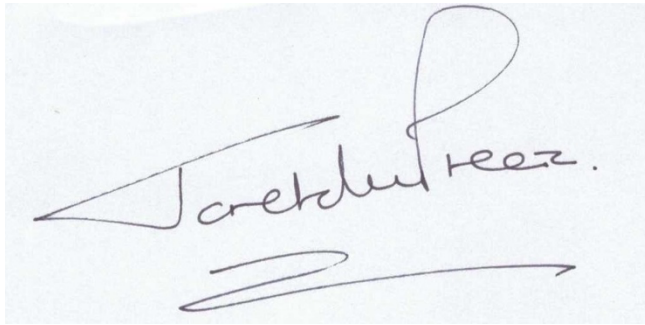
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## Abstract

An increasing body of academic research indicates the importance of collaborative stakeholder engagement in addressing wicked problems such as climate change, global health crises, poverty, and gender-based violence. However, it is also evident that such collaborations are not always successful. While authoritative academics' conceptual framing of wicked problems prescribes that these challenges are not solvable, their massive negative impact prescribes that they cannot be ignored. Responding to these boundary-spanning issues inevitably requires the engagement of multiple stakeholders, often with disparate interests, needs, values and perspectives. The dynamic complexity of the systems in which these issues occur further exacerbates the challenges of effectively engaging stakeholders to promote more positive outcomes.

This qualitative exploratory study aimed to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems. An extensive literature review related to stakeholders, stakeholder engagement and wicked problems preceded semi-structured participant and focus group interviews. The research highlighted the need to distinguish alternative interpretations of the word 'engagement'. Change, complexity, and conflict were identified as qualities of both wicked problems and stakeholder scenarios. The evidence suggested the potential value of engagement processes which cycle through iterative phases of connection, intention, and action. In this process, stakeholders continuously learn as the system evolves, and they invest their individual or collective Social, Physical, Intellectual, Spiritual and Emotional (SPISE) resources. The articulation of these principles offers practitioners a framework for making sense of stakeholder engagement in the context of wicked problems. This framework could enable them to facilitate improved engagement processes with the potential to support more effective responses to potentially catastrophic complex challenges.

**Key Words:** Wicked problems, Stakeholder engagement, Stakeholders, Complexity, Change, Conflict.

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## List of Acronyms

CAQDAS	Computer Aided Qualitative Data Analysis Software
CEO	Chief Executive Officer
SDG	Sustainable Development Goal
SPISE	Social, Physical (or Practical), Intellectual, Spiritual, Emotional

## Definition of Terms

Ecology	An interconnected series of parts in which the order is unfixed and reworked in accordance with freedom of choice exercised by its actants (Griffiths, 2020).
Hermeneutics	The branch of knowledge that deals with interpretation (Oxford Dictionaries, 2017).
Key concepts	The study explores three concepts in depth: wicked problems, stakeholders and stakeholder engagement. They are frequently referred to as the key concepts.
Lacuna	A gap or unfilled space (Oxford Dictionaries, 2017).
Panarchical	“Pertaining to a universal realm” (Oxford Dictionaries, 2017).
Problem ecology	The complex system from, or within which, a wicked problem emerges (Fenn & Hobbs, 2015; Irwin, Tonkinwise & Kossoff, 2015).
Problematicity	Severity of a problem (Turnbull & Hoppe, 2019).
Socio-ecological systems	Systems that combine social and ecological systems (Craig, 2020)
Socio-material	An assemblage of tempero-spatial concepts, things, social constructs, human and natural systems, and the interconnections which enable and constrain conditions for action and interaction (Clarke & Ashhurst, 2018: 153; Fenn & Hobbs, 2015).
Valence	The intrinsic attractiveness (positive) or averseness (negative) of a stimulus (Tye, 2018).
Wicked problems	Ill-defined, complex systemic problems that emerge from multiple root causes and become interconnected and interdependent over time (Irwin <i>et al.</i> , 2015: 2).

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# 1 CONTEXT OF THE STUDY

## 1.1 Introduction

Many of the prevalent and pervasive problems in the 21<sup>st</sup> Century, often called wicked problems, will increasingly require the collaborative engagement of multiple stakeholders if they are to be addressed effectively (Asoka, 2016; Dembczyk & Zaoral, 2014). Wicked problems are ill-defined, complex systemic problems that emerge from multiple root causes and become interconnected and interdependent over time (Irwin *et al.*, 2015: 2). A significant challenge for various parties working together to tackle these challenges is the initiating of collaborative involvement and sustaining this over time (Hilbolling, Deken, Berends & Tuertscher, 2022).

In order to, at least partially, address this situation, the primary focus of this study was to articulate a sense-making framework to improve stakeholder engagement in the context of wicked problems. It sought to foster a deeper analysis of stakeholder engagement (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016) and how it can be improved in the context of wicked problems through an exploration of wicked problems (Rittel & Webber, 1973), stakeholders (Dembczyk & Zaoral, 2014; Heikkurinen & Mäkinen, 2018: 3) and stakeholder engagement (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016). The concepts of wicked problems, stakeholders and stakeholder engagement will be explored in depth in the literature review laid out in Chapter 2.

In this chapter, the researcher will clarify the research problem, distinguish the context of the study (Gear, Eppel & Koziol-McClain, 2018) and present her personal ontological perspective, the epistemological framing of the research and the potential impact of these on the study (Saunders, Lewis & Thornhill, 2011: 110, 112). The problem statement will be clarified, and the title, aim, objectives and research question (Saunders *et al.*, 2011: 42-43) will be elucidated before the researcher explains the theory and choices underpinning the research design and methodology.

## 1.2 Research Problem

In this section, the researcher will outline the context of and state the research problem that she seeks to address through the study and explain why this is a problem worth exploring (Gear *et al.*, 2018).

“Wicked problems can be understood as ill-defined, complex systemic problems that emerge from multiple root causes and become interconnected and interdependent over time” (Irwin *et al.*, 2015: 2). Examples of wicked problems include corruption, food insecurity (Messerli, Murniningtyas, Eloundou-Enyegue, Foli, Furman, Glassman, Hernández Licona, Kim, Lutz, Moatti & Richardson, 2019), climate change (Bannink & Trommel, 2019), poverty, crime (Burge & McCall, 2015), terrorism (McMillan & Overall, 2016), and health inequalities (Pretorius, 2017). The United Nations’ Sustainable Development Goals (SDGs) are directed

toward addressing many of these issues, which represent priorities for transformation (Messerli *et al.*, 2019).

The intractability of wicked problems is reinforced by the involvement of numerous, diverse stakeholders and stakeholder groups (Bitsch, 2016). The response to wicked problems must therefore involve organising and merging the efforts of people (Kroeger, Siebold, Günzel-Jen, Saade & Heikkilä, 2022). The effective involvement or engagement of stakeholders has been proposed and practised as an important approach to addressing wicked problems, ameliorating their negative effects, and collaboratively co-developing innovative responses (Asoka, 2016; de Moor, 2015).

Examples of failed collaborative stakeholder efforts can be linked to many of the world's most pressing challenges, including water management (Porter & Birdi, 2018), health services (Asoka, 2016), infrastructure development (Gil, 2015), and crime (Clancey, 2015). The Life Esidimeni tragedy (Janse van Rensburg, Petersen, Wouters, Engelbrecht, Kigozi, Fourie, van Rensburg & Bracke, 2018) and Hurricane Katrina disaster (Moynihan, 2015) both serve as examples of stakeholder collaborations that went wrong with terrible consequences.

In the South African context, the Life Esidimeni tragedy took place in the mental health care system, which faces numerous wicked problems (Samuriwo & Hannigan, 2020). This system is characterised by inadequate contact, weak integration of less formal service providers, absence of service agreements, inequities, lack of trust, lack of supervision, fragmentation, and silos. The tragedy was founded on collaboration failure, conflict, dysfunctional systems, lack of care and lack of funding (Janse van Rensburg *et al.*, 2018).

Head and Alford (2015) considered Hurricane Katrina to be a wicked problem. Moynihan (2015) asserts that the response to this event was a stakeholder collaboration failure typified by factors such as inertia, failure to follow protocols in some instances with too strict adherence to policies in other instances, lack of leadership clarity, arrogance, suspicion, lack of training, mixed messages and myriad resource issues caused by the hurricane.

In a South African study, Tootla (2021) cited poor stakeholder engagement as a factor in the failure to satisfactorily address the needs of vulnerable children, which she considered to be a wicked problem. A second South African example attributed the failure to resolve healthcare inequities to a number of factors, including inadequate stakeholder engagement (Herselman & Botha, 2016).

Stakeholder engagement issues have thus been found to be one of the greatest barriers to collaborative adaptive management efforts in the context of wicked problems in natural resource management. At the same time, stakeholder engagement was considered vital to the success of these efforts (Beratan, 2014).

The problem which the researcher will explore in this research is the apparent failure of stakeholder engagement to respond effectively to wicked problems (Asoka, 2016; Janse van

Rensburg *et al.*, 2018; Moynihan, 2015). To narrow the scope, the study will focus on exploring how stakeholder engagement could be improved in the context of wicked problems (Garard, 2019).

As explained in this section, responses to wicked problems tend to involve the engagement of multiple stakeholders (Asoka, 2016; de Moor, 2015) and, as illustrated, their collaborative efforts sometimes fail with serious consequences (Asoka, 2016; Janse van Rensburg *et al.*, 2018; Moynihan, 2015). The literature review in Chapter 2 will explore these perspectives in more detail. The researcher has indicated her intention to explore how stakeholder engagement could be improved in the context of wicked problems (Garard, 2019) and, in the next section, will discuss the context of the research problem in more depth.

### **1.3 Background and Context**

This section provides introductory background insights to frame the study. The researcher will introduce wicked problems (Rittel & Webber, 1973), noting the global complexity in which they occur (Johnston & Taylor, 2018b: 175; McMillan & Overall, 2015) before focusing on the social nature of wicked problems (Du & Kadyova, 2016; Heikkurinen & Mäkinen, 2018: 9; Kennedy, Kapitan, Bajaj, Bakonyi & Sands, 2017; Moynihan, 2015). The concepts introduced in this section will be explored in more depth in the literature review in Chapter 2.

#### **1.3.1 Wicked Problems**

The primary context of this research is wicked problems (Rittel & Webber, 1973). By their very nature, wicked problems transcend national, organisational, sectoral and disciplinary boundaries (Haas & Western, 2021; van Heerwaarden, 2017). This study is concerned with the concept of wicked problems as a context for stakeholder engagement. It is not located in any geographical or industrial context.

As globalisation fuels complexity, forces such as technology, politics, economics, and society are increasingly intertwined, resulting in wicked problems which transcend national boundaries and overwhelm societal responses (Haas & Western, 2021). These complex problems evolve rapidly (Braithwaite, Churruca, Long, Ellis & Herkes, 2018; Burge & McCall, 2015; Keenan, 2020; Peters, 2017; Snowden & Boone, 2007; Snowden, Goh, Borchardt, Greenberg, Bertsch & Blignaut, 2020: 96), and often involve multiple stakeholders, who have agency and can choose from many alternative responses, creating increasing unpredictability (Bannink & Trommel, 2019; McMillan & Overall, 2015; Tourish, 2014).

The most intractable of these problems were first termed “wicked problems” by Churchman in 1967 (McMillan & Overall, 2015). A seminal article on the subject was written by Rittel and Webber (1973), who explained a class of problems which did not respond well to conventional, scientific methods of resolution (Newman & Head, 2017). The original framing of wicked problems by Rittel and Webber (1973) included ten criteria listed in **Table 1**.



**Table 1 Qualities of Wicked Problems According to Rittel and Webber (1973)**

The problem cannot be precisely formulated.
There is no definitive solution or endpoint.
Solutions are either better or worse, not right or wrong.
No solution can be tested immediately or ultimately.
All interventions are one-off irreversible experiments.
Solution alternatives cannot be accurately quantified, and a finite list of rules cannot be defined.
The problem is unique.
The problem is symptomatic of another problem.
Any number of plausible reasons may be postulated for the existence of the problem.
Being wrong may have serious repercussions.

Wicked problems will be debated in more depth in the literature review in Chapter 2.

**1.3.2 Wicked Problems and Stakeholders**

Wicked problems are fuelled by the diverse interests and actions of multiple individual role players and/ or stakeholder groups (Carcasson, 2016; Danken, Dribbisch & Lange, 2016; Dentoni, Bitzer & Schouten, 2018; McMillan & Overall, 2015), and are often typified by politics and power dynamics (Dentoni *et al.*, 2018), conflicting priorities (Danken *et al.*, 2016; McMillan & Overall, 2015), different perspectives (Danken *et al.*, 2016; McMillan & Overall, 2015), and lack of informational clarity (Dentoni *et al.*, 2018; McMillan & Overall, 2015). Disagreement may reside in the understanding of what global good means and the nature of the information needed to solve the problem (Dentoni *et al.*, 2018; Irwin *et al.*, 2015).

The term ‘stakeholder engagement’ has emerged to frame the involvement of all those who are in interdependent relationships with organisations or issues (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016). Although definitional clarity remains elusive (Dembczyk & Zaoral, 2014), this newer, more egalitarian descriptor is gradually being adopted to replace ‘stakeholder management’, which implies a primarily unilateral form of relational control, motivated principally by company interests (Du & Kadyova, 2016). Jordan, Chrislip and Workman (2016: 2) proposed that ‘stakeholder engagement’ was a more useful term emphasising “full engagement that fosters stronger support and stakeholder buy-in, greater success throughout implementation and a shared responsibility over results”.

This section has described the context of the study and concluded with arguments for some of the social challenges presented by wicked problems (Newman & Head, 2017). The researcher will continue to explain her personal research perspective, beginning by framing her ontology.

## **1.4 Ontology**

The description of the researcher's ontological perspectives in this section will outline her personal orientation to the study, some of her key perspectives on reality and her relationship to the study. The researcher's ontology will explain the personal and professional experience which inherently shapes her debate and assessment of the research problem.

### **1.4.1 Relativism**

In this sub-section, the researcher elucidates her relativist ontology, briefly explaining this philosophical perspective and the practical implications of this ontology for the study. She illustrates the individual perspective that relativism promotes and the implications for respect and theoretical usefulness. She expands on this introduction by distinguishing a few mental models which are particularly entrenched in her personal perspectives.

The researcher will approach the study from a relativist ontological perspective (Ribiero, 2020). This perspective can be traced back to the ancient Greek philosophers, including Protagoras and Herodotus (Shah, 2017). It rejects the idea of an absolute or single truth but recognises truth for, and relative to, a particular person, situation or group. In other words, the conceptualisation of a truth cannot be divorced from its context (Baghramian & Carter, 2021: 4, 5, 8).

The relativist philosophy legitimises the right of the researcher to hold a construction of reality and to believe that her ontology and epistemology will influence how she has effected this construction (Ribiero, 2020). However, she cannot just randomly assign meaning at will but must provide a context for her argument (Baghramian & Carter, 2021: 1). She must also, by implication, be respectful of the views of other researchers and seek to understand perspectives which differ from her own (Baghramian & Carter, 2021: 8).

Relativists believe that the experience of reality is perceived through the senses and constructed personally (Walliman, 2011: 21-22). They emphasise the usefulness of theoretical constructs rather than their truth (Boateng & Boateng, 2014). Congruent with this perspective, no model can completely describe a phenomenon, although it may partly describe reality and thus still have validity in providing insight. Only the phenomenon itself is an accurate model of reality (Capra & Luisi, 2014: 5; Mateus, 2017).

The researcher's selection of a relativist ontology is aligned with her belief in the uniqueness of each individual's experience, personal context and perspective. This ontology cannot be divorced from who the researcher is, from her personal sense of being (Saunders *et al.*, 2011: 145), which influences her mental models and the personal and perceptual realities through which she selects, views, evaluates and argues her subject (Saunders *et al.*, 2011: 110). In the sub-sections which follow, the researcher will highlight key personal mental models which have bearing on this study.

#### 1.4.1.1 *Choice*

In a journey strongly influenced by participation in co-operative research with Cloete (2017) for his PhD, originally framed as 'Spirituality in the Workplace', and her own spiritual path, the researcher has come to believe that the spiritual aspect of personhood is at the heart of who people are, that choice is the essence of this spirituality and that human behaviour is a result of choice.

As existentialist philosopher Sartre asserts, mankind is condemned to choose, and out of these choices, our lives emerge (Vedaparayana, 2018). We cannot not choose. It is our power to choose that makes human systems complex and makes people both challenging and fascinating to understand (Klingler & Gray, 2015).

#### 1.4.1.2 *Learning*

The researcher is fascinated by learning and holds numerous personal beliefs about learning and knowledge development. However, of relevance in this study, the researcher has come to believe that insight and truth often lie at the intersection of seemingly irreconcilable paradoxes (Chen & Hitt, 2019). Just because no way may have yet been found to reconcile two concepts does not mean that they are thus irreconcilable. As Kolb (1984) implies, it is in these exact conflicts that learning occurs.

Learning can be enhanced when multiple lenses are applied to a subject, even when these lenses are imperfect. The most innovative and progressive insights are sometimes gained when considering something through an unusual lens (Chen & Hitt, 2019). This belief is evident in this study. New insights into stakeholders will be shown to emerge when a whole person wellness framework (Beauchemin, Gabana, Ketelsen & McGrath, 2019) is applied to understanding stakeholders and how they engage and experience interactions.

#### 1.4.1.3 *Academic Foundations*

Many of the researcher's views, choices and ideas have been formed through three streams of academic study – health science, and psychology, introduced in this sub-section and business in the following sub-section.

The researcher completed a BSc Nursing Degree in 1987, during the age of the medical model (Southall, 2014) Traditional Systems and Newtonian Thinking (Sanchez-Segura, Hadzikadik, Medina-Dominguez & Dugarte-Peña, 2018). Despite this, her most valuable learning was how to understand and manage complex, dynamic systems. This insight has matured with the advent of modern abstract conceptualisations of complexity (Holman, 2015: 124; Snowden & Boone, 2007; Snowden *et al.*, 2020: 39).

In the late 1980s, the researcher first encountered whole person theory in the 'Nursing for the Whole Person Theoretical Framework' (Anna Vaughn School of Nursing, 1990). More recently, the researcher has preferred the five-dimensional frame proffered by wellness theorists

Beauchemin *et al.* (2019), who describe people as spiritual, physical, intellectual, social and emotional (SPISE) beings. This systems framework will be referenced throughout the research, especially with regard to understanding stakeholders. Whilst it is helpful to use these five separate lenses to seek to understand people more comprehensively (Beauchemin *et al.*, 2019), it must be pointed out that the boundaries and distinctions between these systemic aspects of personhood are very blurred, indistinct and somewhat theoretical. As one example, Pert's pioneering work on the 'Molecules of Emotion' (Mahawithanage, 2020: 20; Pert, 1997) clearly demonstrates the physical nature of emotion.

#### 1.4.1.4 Business Context and Interests

After leaving nursing, the researcher moved into executive leadership in the business environment. Topics such as complexity (Snowden *et al.*, 2020: 39), wicked problems (Rittel & Webber, 1973), emergence, the digital economy, the 4<sup>th</sup> Industrial Revolution (Simbanegavi, Patel, Senbet, Ayed Mouelhi, Gatune, Amaoko, Mutanga, Altenburg, Coulibaly & Prakash, 2018), collaboration (Asoka, 2016) and engagement (Kahn, 1990) have become part of the researcher's day to day learning and rhetoric. She has become increasingly interested in exploring how theories of leadership, individual and collective stakeholder, and organisational effectiveness can be applied to dealing with complex challenges and unleashing economic opportunity, especially in Africa.

This social context provides the researcher's primary personal motivation for completing the study. She hopes to add credibility to the models and practices which she develops and promotes and anticipates that she will broaden her understanding of her clients' context, the challenges which she is paid to address and the value that she is able to deliver to her clients. She also hopes to be better equipped to positively impact the wicked problems which most hamper development and prosperity in Africa.

The ontology section of this chapter has highlighted some of the most critical perspectives which the researcher brings to this study. She has acknowledged her relativist biases as well as some of her opinions about people and the business context in which she has worked. In certain instances, she has been able to cite references to substantiate her position, but in others, she has acknowledged that these were her own interpretivist conclusions from her life experiences. Some of the practical implications of the researcher's relativist ontology and their impact on the research design and methodology will be presented in Chapter 4.

## 1.5 Epistemology

This section continues to outline the orientation of the study focused on the selected approach to knowledge generation (Dudovskiy, 2016; Kivunja & Kuyini, 2017). Seising (2014: 557) states that epistemology is "the branch of philosophy concerned with knowledge". It focuses primarily on how knowledge is defined, where it comes from, how it is shaped and where its boundaries lie, as well as its acceptability (Saunders *et al.*, 2011: 112). The design

and findings of this study are shaped by the researcher's relativist ontology, and knowledge will be managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115), introduced in the next sub-section.

### **1.5.1 Subjectivism**

As presented in the previous sub-section, the researcher's relativist ontology holds that truth is context-specific and personal (Baghrarian & Carter, 2021: 4, 5, 8). The subjectivist epistemology which underpins this study aligns with that ontology and contends that social phenomena and the meanings attributed to them exist because of the perceptions of social actors and the actions which they take (Saunders *et al.*, 2011: 110).

In contrast with objectivists, who believe that phenomena exist separately from people, subjectivists believe that reality is a projection of human nature and that the social world is a set of meanings and relationships developed through the process of human action and interaction (Ritchie & Lewis, 2003: xiv; Saunders *et al.*, 2011: 111). According to subjectivists, people construct organisations (Bryman & Bell, 2015: 32-33). As individuals work together and share a common reality, that reality is a subjective construction, sustained by people and constantly in revision (Saunders *et al.*, 2011: 111).

Adherence to the subjectivist epistemology also implies that the formulation of concepts is constantly evolving as society collectively co-constructs them (Janzwood, 2021; Ritchie & Lewis, 2003: 13; Saunders *et al.*, 2011: 601). Thus, the researcher cannot be fully correct about the nature and mechanisms of wicked problems or of stakeholder engagement. She can, at best, provide a more useful and applicable construction of the concepts (Janzwood, 2021; Ritchie & Lewis, 2003: 45; Saunders *et al.*, 2011: 176). This epistemology is evidenced in the selection of the social-constructivist/ interpretivist paradigm discussed in sub-section 1.5.2.

Another practical implication of this epistemology is the researcher's awareness of the unique individual and contextual perspectives regarding the concepts being researched. Common threads will be sought in the sources of knowledge to be investigated, and co-created language will be used to design a sense-making framework which has relevant applicability (Saunders *et al.*, 2011: 6, 111).

Part of the value of research lies in the fresh perspectives which a new researcher can bring to the advancement of communal emergent scientific goals (Berland, Schwarz, Krist, Kenyon, Lo & Reiser, 2016; Ritchie & Lewis, 2003: 282). The researcher is involved in the rich development, evaluation, and enhancement of knowledge to enable such advancement (Berland *et al.*, 2016) but is cognisant that scientific argument has no value if it is constructed simply for academic purposes (Gibbons, Limoges, Nowotny, Schwartzmann, Scott & Trow, 1994).

The social constructivist/ interpretivist research paradigm, which supports the subjectivist epistemology, is introduced in the following sub-section.

### **1.5.2 Research Paradigm – Social Constructivism/ Interpretivism**

As presented in the previous sub-section, subjectivism contends that social phenomena and the meanings attributed to them exist because of the perceptions of social actors and the actions which they take (Saunders *et al.*, 2011: 110). Cresswell (2007: 20) establishes social constructivism and interpretivism as mutually-supportive, subjective research paradigms or philosophies. This study is informed by social constructivist and interpretivist perspectives.

The schools of cognitive constructivism and social constructivism both agree that knowledge is constantly being actively built and sense being made through challenging, and replacing, old paradigms and cognitive constructions, but social constructivism contends that this process is not individual but always social in nature (Amineh & Asl, 2015; Kara, 2019).

Social Constructivism holds that people co-construct shared meaning and interpretations of reality through interactions. Concepts are thus not static but constantly evolve and may be contested (Lombardo & Kantola, 2021: 125-126). This recognition of the on-going evolutionary nature of knowledge is of great relevance in inter-disciplinary environments and argues that all knowledge is communally generated (Amineh & Asl, 2015; Kara, 2019).

Interpretivism may be contrasted with positivism, which assumes that knowledge is observable and verifiable (Salazar, Crosby & DiClemente, 2015: 210) rather than rich and complex (Saunders *et al.*, 2011: 116). Interpretivism allows for multiple realities and personal perspectives (Saunders *et al.*, 2011: 116). It prescribes an empathic understanding of other people's perspectives and points of view related to particular circumstances and interactions (Saunders *et al.*, 2011: 116).

The interpretivist research paradigm focuses on complex and collaborative social meaning-making (Salazar *et al.*, 2015: 211), contending that meaning is constructed through thought and individual interpretation of experience (Ritchie & Lewis, 2003: 6, 7). Interpretation is assumed to be individualised based on social roles, personal meanings (Saunders *et al.*, 2011: 116) and what is sensed and perceived of experiences (Ritchie & Lewis, 2003: 6, 7).

In this social constructivist/ interpretivist study, knowledge will be built from social constructs through imperfect and emerging language and shared meaning (Ritchie & Lewis, 2003: 21; Salazar *et al.*, 2015: 211).

#### **1.5.2.1 Interpretive Lens – Systems Thinking**

An interpretivist considers knowledge through personal lenses (Ritchie & Lewis, 2003: 6, 7) and an important interpretive lens for this researcher is that of systems thinking, an approach which emerged in the mid-20th Century, significantly influenced by the field of biology. Contrasted with reductionist thinking, which seeks to simplify understanding of concepts through the consideration of isolated parts, systems thinking approaches research and learning holistically (Orgill, York & MacKellar, 2019).

Systems thinking will be reflected throughout this study. By implication, this means that the researcher views the concepts which she studies as systems. In the context of this study, wicked problems, stakeholders and stakeholder communities will each be viewed as systems in their own right and as interconnected variables within a larger system.

Rather than reducing systems to their parts and considering these parts in isolation, systems thinking proposes that whilst systems can be examined at different levels, or research might focus on part of the system, that part of the system must be considered within the broader context within which it is connected (Orgill *et al.*, 2019). One systems thinking lens considers the micro, meso, exo and macro levels of systems, which essentially define the size of the frame in consideration (Brennan, Previte & Fry, 2016; Johnston & Taylor, 2018a: 1; Orgill *et al.*, 2019).

Fisher and Coleman (2019) assert that different levels of systems tend to exhibit similar fractal patterns. In a pure sense, this means that similar characteristics are observed in parts of the system as well as in the whole. At increasing resolution, fractal elements reveal finer detail and increased nuance (Fisher & Coleman, 2019: 341).

The elements of a system are interconnected and interdependent, so the system inevitably changes over time as these elements change or re-organise, connecting and reconnecting in emergent patterns which create new realities. A system exists in a specific form, at a place and point in time (Orgill *et al.*, 2019). Time and space are thus vital considerations in systems thinking, often termed temporal, spatial, or temporo-spatial factors (Betley, Sterling & Porzecanski, 2021; Clarke & Ashhurst, 2018: 153; Fenn & Hobbs, 2015).

Linear thinking, which is characteristic of reductionist thinking, focuses on cause and effect relationships between variables. Whilst systems thinking recognises the impact of elements of the system on each other, the non-linear thinking that it embraces contends that effects ripple throughout the system and causes may be remote from where effects are observed. These non-linear patterns of effect may branch, combine and loop, making them difficult to fully map or trace. The looping effect provides feedback, allowing the system to respond to these changes (Betley *et al.*, 2021).

Insight into complexity, and non-linear dynamics, have profoundly shifted social and scientific systems thinking paradigms. These shifts have encouraged a networked and ecologically systemic view of phenomena, which recognises the interaction, interdependence and interconnectedness of elements of the world (Capra & Luisi, 2014: 16), with complexity as a factor of these interactions (Cloete, 2017).

The term 'socio-material', which has been referenced by the researcher later in this study, describes an assemblage of temporo-spatial concepts, things, social constructs, human and natural systems, and the interconnections which enable and constrain conditions for action and interaction (Clarke & Ashhurst, 2018: 153; Fenn & Hobbs, 2015).

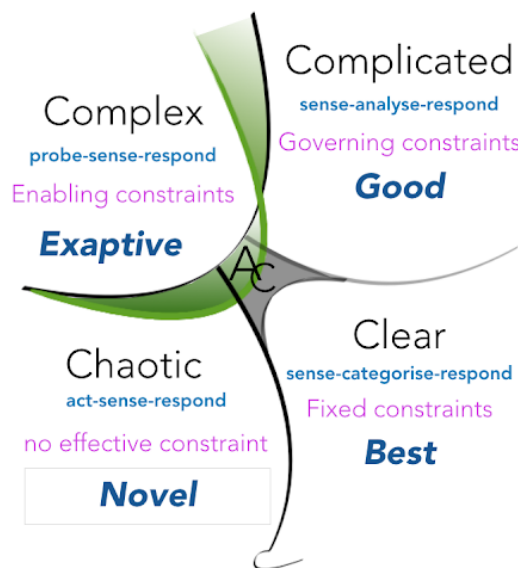
The word ecology is used frequently throughout the study, and definitional clarity would be helpful. Whilst ecology is the study of how organisms relate to their environments (Sagoff, 2017), an ecology is described by Griffiths (2020) as an “interconnected series of parts in which the order is unfixed and reworked in accordance with freedom of choice exercised by its actants”.

Living systems are animate, autopoietic, and dynamic. Four principles are evident in living systems. They are self-organising and use information to respond to stimuli. Their elements are connected, and there is an inherent coherence (Mills, 2021). Organisms and living systems are integrated whole patterns, ecosystems or gestalts. Their “essential properties cannot be reduced to those” of their parts (Capra & Luisi, 2014: 14), or be fully understood, even though those parts may be deeply understood.

There are numerous schools of systems thinking (Jones, 2021). This study particularly references the Cynefin Framework (Snowden & Boone, 2007; Snowden *et al.*, 2020: 2) and Complex Adaptive Systems (Braithwaite *et al.*, 2018; Eoyang & Mennin, 2019; Nair & Reed-Tsochas, 2019; Waddell, 2016), which emphasise the complex nature of systems or complexity thinking. Complexity theory and non-linear dynamics will also be mentioned. These were terms which emerged in the 1970s as part of the evolution of systems thinking and complexity (Capra & Luisi, 2014).

The analysis and evaluation of complexity in the context of this study are strongly informed by the Cynefin Framework, first described by Kurtz and Snowden (2003). Snowden continued to develop this framework, and the version illustrated in **Figure 1 The Cynefin Framework**

is the most recently published (Snowden *et al.*, 2020). The researcher will highlight some of the key concepts included in the framework which have relevance to the study.



**Figure 1 The Cynefin Framework**  
(Snowden *et al.*, 2020: 58)



According to Snowden *et al.* (2020: 59), systems may be Ordered, Complex or Chaotic. The Ordered domain is divided into the Clear and Complicated domains, distinguished by the requirement for expert analysis in the latter to explain or understand the linear, causal links. The AC Zone in **Figure 1 The Cynefin Framework**

is the recently renamed zone of Confusion, a state in which the system is in transition or the applicable domain is not known (Snowden *et al.*, 2020: 60).

In **Figure 1 The Cynefin Framework**

the dark green Liminal line creates four specific border zones. The Liminal zone in Complexity denotes systems which are transitioning to Complicated but are still uncertain. The Liminal zone between Complexity and Chaos allows for the intentional reduction of constraints to enable decision-support or to promote innovation. The Aporia zone (labelled A) is a state of authentic and aware confusion. It is possible to descend into unaware confusion or Catastrophe (labelled C) from the Clear domain through being unaware of the limited applicability of rigid constraints (Snowden *et al.*, 2020: 53, 59-61).

The Complex domain and Liminal zones bounding it are of most interest in this study. Within the Complex domain, constraints are enabling and come from the system itself and the agents within it. Practice in complex systems should be exaptive, meaning that existing capabilities or resources are repurposed to deal with these complex challenges. In attempts to bring greater order to the system, in the Liminal area between Complicated and Complex, existing approaches are tried and iteratively improved (Snowden *et al.*, 2020: 59-61).

Paradoxes and puzzles can be deliberately presented in the Aporetic zone to foster changed thinking and more exaptive practices, especially when Complicated thinking is limiting the ability to exapt to more Complex challenges. This same zone is a desirable initial destination for Complex systems which unwittingly or unintentionally stray into Chaos. In this case, radical design and innovation may enable a transition from Chaos to more Complicated outcomes (Snowden *et al.*, 2020: 60).

In the remainder of this chapter, the researcher will state the title, aim and objectives of the study. She will identify the research question (Ritchie & Lewis, 2003: 2,3,5; Saunders *et al.*, 2011: 21) and the limitations of the study before concluding this introductory framing of the study by introducing the research design and methodology.

## **1.6 Aim and Objectives of the Study**

As indicated in section 1.2, the research will be conducted in response to the challenges of stakeholder engagement in the context of wicked problems. This section defines the aim and objectives to be achieved through exploring this problem. The aim and objectives of the research provide purpose and direction for the project. They explain why the research is being conducted and what the researcher plans to achieve as a result of conducting the research (Saunders *et al.*, 2011: 34).

This subjectivist study focuses on evolving the concept of stakeholder engagement in the context of wicked problems (Janzwood, 2021; Ritchie & Lewis, 2003: 13; Saunders *et al.*, 2011: 601). The researcher is particularly curious about what theoretical framing of stakeholder engagement might be useful and applicable for practitioners who seek to engage stakeholders effectively in the context of wicked problems.

The aim of this research, therefore, is to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems by meeting the following objectives:

1. RO1 - Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement;
2. RO2 - Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems;
3. RO3 - Review the proposed sense-making framework for coherence and application to improving stakeholder engagement.

Having clarified the aim and objectives of the research study in this section, the researcher will identify the research questions that will shape the design and methodology of the research applied in Chapter 4 (Ritchie & Lewis, 2003: 2,3 5; Saunders *et al.*, 2011: 21).

## **1.7 Research Question**

Saunders *et al.* (2011: 32-33) stressed the importance of effectively defining the research questions since, to a great extent, they prescribe the scope of the study and the conclusions drawn from the research. The challenge for the researcher is to generate questions which provide clear boundaries for the study, limit its scope and yet generate new and useful insights.

In order to achieve the aim of the research, as explained in section 1.6, the researcher will consider the following primary research question (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21):

‘How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?’

The secondary research questions were:

1. SRQ1 - What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?
2. SRQ2 - How could wicked problems, stakeholders, and stakeholder engagement be alternatively framed?

3. SRQ3 - How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?
4. SRQ4 - How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?

The secondary research questions are of relevance to the whole study and underpin the uniqueness of this research. They inform the interview questions and the development of the sense-making framework (Prinsloo, 2021; Saunders *et al.*, 2011: 366). Answering the first two secondary research questions will assist the researcher in meeting the first objective of the study. The third of the secondary research questions will assist the researcher in meeting the second objective of the study. The fourth secondary research question will assist her in meeting the third objective of the study.

## **1.8 Research Design and Methodology**

The design and findings of this study will be shaped by the researcher's relativist ontology. Knowledge will be managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115) and applied through a social constructivist/ interpretivist research paradigm. The research design and methodology theory, briefly described below, include an overview of exploratory design, the selected approach to theory building and the chosen qualitative methods of sampling and data management.

### **1.8.1 Research Design – Exploratory**

In this sub-section the researcher explains the principles of exploratory research design and why this design was deemed appropriate for the study. The application of these theoretical principles to the study will be explained in Chapter 4.

In the research design, the researcher turns the “research question into a research project” (Saunders *et al.*, 2011: 136), describes the evidence to be collected, where it will be collected and how it will be collected. The design also explains how the evidence will be analysed and interpreted to answer the primary research question (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21). The research design needs to be practical for the researcher, and realistic within her constraints (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21).

The research design should align with the aim and objectives of the research to enable the researcher to answer the research questions (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21). This study will explore the concepts of stakeholders, stakeholder engagement and wicked problems to create a sense-making framework to improve stakeholder engagement in the context of wicked problems. The exploration will facilitate the social construction of new frames for these concepts through engagement with existing literature and knowledgeable participants.

The researcher will employ an exploratory design because she intends to deepen understanding of her topic and the primary purpose of exploratory research is to better understand a problem or situation (Dudovskiy, 2016; Saunders *et al.*, 2011: 139). Exploratory investigation is often used for early or preliminary studies, where little is known about a subject. Kowalczyk (2013) identifies two forms of exploratory research – the investigation of new subjects and the investigation of an existing topic from a new perspective. This research will explore the existing topics of wicked problems, stakeholders and stakeholder engagement from new perspectives.

Exploratory studies are flexible and amenable to change as insights emerge and meaning is co-constructed (Lombardo & Kantola, 2021: 125-126; Saunders *et al.*, 2011: 140). As such, they are generally fairly loosely defined (Salazar *et al.*, 2015: 82). The researcher is central to this process, taking on the role of ‘researcher as explorer’ (Power, Velez, Qadafi & Tennant, 2018), malleable and conscious of context. Whilst the research journey is planned, the exploratory researcher may digress from the plan in order to deepen the exploration (Saunders *et al.*, 2011: 140).

The principal value of an exploratory study lies in the opportunity to clarify concepts, in this case, with a view to identifying opportunities for improving stakeholder engagement practice (Saunders *et al.*, 2011: 139). As such exploratory studies generally employ qualitative methods and ask exploratory questions (Salazar *et al.*, 2015: 84). The inductive generation of theory will be introduced in the next sub-section. The application of these exploratory enquiry principles will be explained in Chapter 4.

#### *1.8.1.1 Approach to Theory Building - Inductive*

As a qualitative study, the type of enquiry for this research will be inductive. Inductive reasoning involves the generation of theory from data. It contrasts with deductive reasoning, which uses evidence to support or refute a theory (Saunders *et al.*, 2011: 61). A primary benefit of inductive reasoning is the opportunity it presents for the researcher to derive meaning, concepts and explanations from expert participants who have insight into the construct under review (Saunders *et al.*, 2011: 490).

In this study the inductive approach is selected because it enables a deeper understanding of the dynamics of social constructs, the meanings which people attribute to them and their context-specificity. It is particularly useful when there is a minimal theoretical basis for the creation of confident, deductive hypotheses and allows for the inclusion of qualitative data. The approach is also more emergent and legitimises the subjective involvement of the researcher (Saunders *et al.*, 2011: 126, 127).

Inductive studies are a process of discovery with unknown outcomes (Konttinen & Sjunnesson, 2020). The sense-making theory which will emerge from this research will be built using an inductive approach. This mode of enquiry works from evidence to a conclusion, in contrast to

deductive studies, which test pre-defined theoretical positions using evidence. Thus, no hypotheses will be formulated or tested, and the output of the study will be a sense-making framework (Ritchie & Lewis, 2003: 14; Saunders *et al.*, 2011: 61), which cannot be defined before the study is concluded (Konttinen & Sjunnesson, 2020). Sense-making theory will be introduced in the next sub-section.

#### 1.8.1.1.1 Sense-making Frameworks

Odden and Russ (2018: 192) propose that sense-making is the process through which people “figure something out” by connecting ideas and checking for coherence with a combination of common and theoretical knowledge.

A sense-making framework is a schema which assists people in making sense of a situation, to clarify something that is not understood. It helps to build an explanation or a bridge between what is known and what is observed. It draws on known concepts to help to explain something which may be unfamiliar or not fully understood or explained. A sense-making framework can assist in uncovering the mechanisms underlying a phenomenon by providing potentially explanatory ideas (Odden & Russ, 2018). A useful sense-making framework will help to build coherent explanations for what things are, how they work or why they work as they do (Attfield, Fields & Baber, 2018; Odden & Russ, 2018) and provides a tool for a thinking process (Odden & Russ, 2018). As Attfield *et al.* (2018) assert, people make sense when they compare their experiences with a frame of reference.

In this study, the researcher intends to develop a sense-making framework to help people make sense of stakeholders and of how stakeholders can effectively engage in the context of wicked problems. She will first develop a conceptual framework after conducting the initial literature review and before commencing with data collection. The sense-making framework that will be developed through this study should help to explain the data, recognising that future data may also challenge the frame. Since multiple frames may be of value, this sense-making framework will not have to be comprehensively accurate or complete, but to be of value, it must be useful (Attfield *et al.*, 2018).

The design and findings of this study will be shaped by the researcher’s relativist ontology. Knowledge will be managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115) and applied through a social constructivist/ interpretivist research paradigm. That paradigm will support an exploratory design and inductive generation of theory from qualitative data, which will be introduced in the next sub-section.

### **1.8.2 Research Methodology - Qualitative**

In this sub-section the researcher explains the principles of qualitative research methodology and why this methodology was deemed appropriate for the study. The application of these theoretical principles to the study will be explained in Chapter 4.

The research methodology employed in this study is qualitative and involves the use of qualitative methods to yield qualitative findings. The use of the word 'qualitative' in research has become ubiquitous, referring to an overall distinction from quantitative research methodology and being applied to methods, data forms and approaches (Ritchie & Lewis, 2003: 2; Saunders *et al.*, 2011: xviii). In this sub-section, the researcher will focus on the qualitative methodological approach to the study and present the qualitative data collection and analysis methods which support this methodology.

A qualitative research methodology yields qualitative data. While quantitative data is based on numbers, is analysed statistically and is often presented diagrammatically, qualitative data is focused on meaning, generally represented by words and analysed conceptually (Saunders *et al.*, 2011: 482). The generation of qualitative data depends on the use of qualitative data collection methods (Saunders *et al.*, 2011: 138).

Gaudet and Robert (2018: 9, 10) advise that social subjects are better studied using qualitative methods, which allow for complexity and interpretation. The explosion of qualitative research since the mid-1970s has allowed for social research to become more participative, emancipative, situational, reflexive, narrative, biographical and personalised (Ritchie & Lewis, 2003: 6-11). A qualitative methodology will allow the researcher to access the experiences and opinions of subjects expected to be able to render informed opinions to assist the understanding of the social constructs of wicked problems, stakeholders and stakeholder engagement (Ritchie & Lewis, 2003: xiv, 3, 7, 8, 172).

Accessing the knowledge and experience of participants through qualitative methods such as individual and focus group interviews will facilitate the collection of thick data (Fiaidhi & Mohammed, 2019; Ritchie & Lewis, 2003: 5, 21), which may be contrasted with big data. Where big data is usually quantitative, generally collected electronically in high volumes, and analysed algorithmically, thick data is qualitative, complex, non-standardised and more personalised. Involvement of the researcher in the collection of thick data will enable a level of immediate analysis and interpretation during the interview and allow for emergent insights to be probed and explored (Fiaidhi & Mohammed, 2019).

The collection of high-quality qualitative data through interview processes, introduced in section 1.8.2.2, requires the development of a research instrument or what Ritchie and Lewis (2003: 115) call a topic guide, and Saunders *et al.* (2011: 329) call an interview guide. The researcher will formulate the interview questions to explore and gain an increased understanding of wicked problems, stakeholders and stakeholder engagement. The questions in the guide will be developed for potential use in both the individual interviews and the focus group (Ritchie & Lewis, 2003: 20; Saunders *et al.*, 2011: 337). The quest for descriptive answers in this qualitative exploratory study mean that the researcher must develop non-leading, open-ended questions (Ritchie & Lewis, 2003: 20; Saunders *et al.*, 2011: 337), using strong question words such as who, what, where, when and how (Cresswell, 2007: 107; Salazar *et al.*, 2015: 84).

The collection of qualitative data from participants is subject to ethical and confidentiality considerations, and the researcher must ensure compliance of the research with the ethical standards and policies of the Da Vinci Institute for Technology Management (Pty) Ltd. All participants will be required to sign consent to participate (Saunders *et al.*, 2011: 184, 188). Committed to critical interaction, curiosity, the plurality of ideas and ethical excellence, the researcher aims to submit personal work which will stand up to scrutiny (Da Vinci Institute, 2010). Ensuring that the work is original requires proper referencing and the framing of ideas in the researcher's own words (Saunders *et al.*, 2011: 63, 546).

Qualitative data will be collected using qualitative methods from a small sample group of participants. Sampling, data collection and data analysis methods will be introduced in the next three sub-sections.

#### 1.8.2.1 Sampling Strategy – Non-probability

Qualitative, exploratory, inductive studies usually involve data collection through individual interviews and focus groups rather than surveys or other volume-based quantitative methods (Saunders *et al.*, 2011: 140). These more detailed methods of data collection necessitate small sample groups, which are likely to be purposive, selected to suit the requirements of the exploration (Saunders *et al.*, 2011: 212, 213).

It will clearly be impractical, prohibitively expensive and too time-consuming (Saunders *et al.*, 2011: 212) to gain insight from the entire population of participants who could contribute valuable data relevant to the construction of the stakeholder engagement framework (Asoka, 2016; Janse van Rensburg *et al.*, 2018). Sampling is therefore imperative (Saunders *et al.*, 2011: 212). Sampling involves deciding the number of participants that will be involved in the study and deciding who will be selected (Salazar *et al.*, 2015: 147).

Saunders *et al.* (2011: 233) asserts that there are no rules for determining the appropriate number of people to include for a non-probability sample, but they are typically low in qualitative studies where resources are limited (Ritchie & Lewis, 2003: 83, 85). Braun and Clarke (2021) provide guidance regarding the appropriate sample size for this type of study. These principles will be applied in the researcher's sampling strategy. Qualitative data has traditionally been collected until saturation or information redundancy is reached, a practice which has emerged from grounded theory and which implied that no new properties were emerging from additional interviews (Braun & Clarke, 2021).

However, saturation, defined as 'no new information', is illogical, according to Braun and Clarke (2021). They contend that new theoretical insights are always possible if new data is collected and analysed. They further suggest that data saturation is not a useful concept in all studies and propose that it may reflect neo-positivist tendencies – an attempt to simulate the reliability and objectivity of quantitative research, to appease gatekeepers.

Braun and Clarke (2021) proffer some alternative approaches to data saturation as a way to determine sample size. Firstly they suggest that sampling may be deemed adequate or acceptable when there is sufficient understanding to build a theory. This might be termed theoretical sufficiency, conceptual density or conceptual depth. These concepts focus more on the quality, depth and diversity of the data than on the quantity of data. Secondly, they argue that sampling is almost always governed by pragmatism, shaped by time and resource availability. Thirdly, these authors propose that researchers should aim to increase the diversity, depth and quality of responses relative to the study. With these principles in mind, researchers should then estimate how many participants to include and then make an *in situ* and subjective decision to terminate data collection when sufficient (Braun & Clarke, 2021). These guidelines will be applied in this study.

Deciding how participants will be selected firstly involves creating a sampling frame which defines the qualities of potential participants and a sense of the whole population who could contribute (Salazar *et al.*, 2015: 149). Secondly, a selection process will be defined (Salazar *et al.*, 2015: 152). The definition of a sampling frame is related to the research question and comprises the population of those who are most likely to be able to provide information which could be useful in answering the question (Salazar *et al.*, 2015: 152; Saunders *et al.*, 2011: 233). Defining a sampling frame is difficult for two reasons. It may be difficult to identify who can give useful information, and then it may be difficult or even impossible to identify where those people might be located (Salazar *et al.*, 2015: 150).

The process of selecting the sampling technique depends on the research philosophy and design. Non-representative, non-probability sampling is deemed appropriate in the context of this qualitative social science study (Ritchie & Lewis, 2003: 78; Saunders *et al.*, 2011: 233, 239, 344). Representative or probability samples mirror the qualities of the whole population or sampling frame (Salazar *et al.*, 2015: 152). Non-representative, non-probability samples make no such claim. Participants will not be selected statistically but will be chosen on the basis of the researcher's subjective judgement (Saunders *et al.*, 2011: 233) and the characteristics of the population frame (Ritchie & Lewis, 2003: 78).

Whilst the usefulness of a study is a function of its generalisability (Salazar *et al.*, 2015: 147), exploratory qualitative studies tend not to be highly generalisable because of small sample sizes (Salazar *et al.*, 2015: 84). The implication of this statement is that the findings of the study will be relevant for this sample group, but may not be universally relevant, an outcome which is consistent with a relativist ontology (Baghramian & Carter, 2021: 4, 5, 8).

Non-probability sampling options include quota, purposive, snowball, self-selection and convenience selection (Saunders *et al.*, 2011: 236). This research will use purposive and snowball sampling methods to assemble a group of participants aligned with the study aim (Ritchie & Lewis, 2003: 78; Saunders *et al.*, 2011: 213, 237, 241).



Purposive sampling is useful for very small samples, for in-depth studies focused on unusual themes (Saunders *et al.*, 2011: 236). The researcher will use her judgement to select participants, based on specific selection criteria, whom she considers to be likely to be able to answer the research question and to enable her to meet the objectives of the study (Saunders *et al.*, 2011: 237). Purposive sampling is of great value for information-rich studies, such as this research (Saunders *et al.*, 2011: 239).

Snowball sampling is useful when it is difficult to identify potential participants (Saunders *et al.*, 2011: 236). In this case, the researcher will identify a small sample of participants and ask these individuals to identify additional potential contributors, who could again be asked to recommend other participants (Saunders *et al.*, 2011: 240). Bias is a potential risk of snowball sampling (Saunders *et al.*, 2011: 240).

The application of these sampling methods in this study will be explained in Chapter 4. The methods used to collect qualitative data from participants for this study will be introduced in the next sub-section.

#### *1.8.2.2 Data Collection – Literature Review, Individual Interviews, Focus Groups*

Data is collected to enable the researcher to answer the research question and to ensure that the aim and objectives of the study are achieved. Collection methods should thus be congruent both with the aim and objectives of the study and with all the chosen research concepts (Saunders *et al.*, 2011: 318). The researcher's goal in this process was to minimise bias (Ritchie & Lewis, 2003: 20).

The collection of qualitative data allows exploration to answer the research questions (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21, 322) and triangulation with theoretical perspectives to increase the credibility of the study (Saunders *et al.*, 2011: 146). Triangulation refers to the use of two or more data collection methods to verify consistency (Saunders *et al.*, 2011: 602). Data collection methods for exploratory research most commonly include a literature review, individual interviews and/ or focus group interviews (Ritchie & Lewis, 2003: 56; Saunders *et al.*, 2011: 140). All three methods will be employed by the researcher to obtain the views of participants and inductively develop the particular ideas they present to create generalised abstractions in the sense-making framework (Cresswell, 2007: 248). The theoretical foundations for the literature review will be introduced in Chapter 2.

Individual and focus group interviews are examples of close contact data collection approaches that require the researcher to personally interact with the participants (Ritchie & Lewis, 2003: 5, 21). These interviews allow for the collection of thick qualitative data, as explained in sub-section 1.8.2 (Fiaidhi & Mohammed, 2019; Ritchie & Lewis, 2003: 5, 21).

The choice to conduct individual interviews or focus groups is based on the type of data required, the subject under consideration and the nature of the research population (Ritchie & Lewis, 2003: 57). In this study, individual interviews will be conducted to elicit data from

people with relevant knowledge to build the sense-making framework. A focus group will be conducted to critique the sense-making framework and explore its application.

As introduced in section 1.8.2, an interview guide will be developed for use in these interviews. The semi-structured nature of the interviews will give the researcher freedom to select from these questions, vary the order of questions or add extra questions during the process (Saunders *et al.*, 2011: 320). As Ritchie and Lewis (2003: 49) affirm, qualitative design is emergent and must be flexible and responsive to the research context. It will be up to the researcher to draw out meaning and make it explicit (Ritchie & Lewis, 2003: 57).

In the in-depth individual interviews and, to a lesser extent, in the focus group interview, the researcher will be able to iteratively probe the responses to these questions further with unprepared content mining questions (Ritchie & Lewis, 2003: 150-151) appropriate to the context. The interview guide will provide some sample questions, but since the interview will be semi-structured, the researcher will also be at liberty to ask other questions prompted by the responses of the interviewees (Saunders *et al.*, 2011: 337).

As indicated in section 1.2, wicked problems are complex issues, and individual interviews are especially suited to exploring very complex systems, processes or experiences in detail. These interviews will be interpretive and allow participants to think out loud and explain or build their meaning (Saunders *et al.*, 2011: 323). The researcher will have the opportunity to clarify the emergent data (Ritchie & Lewis, 2003: 58) and the freedom to ask additional questions and probe responses (Saunders *et al.*, 2011; 324).

Individual interviews may be structured, semi-structured or unstructured. The most appropriate interview format for this study will be a semi-structured interview (Saunders *et al.*, 2011: 320, 323), which will allow the researcher to tailor her exploration to deeply understand the research problem (Cresswell, 2007: 19).

Focus groups are particularly suited to the conceptual considerations which the researcher expects to emerge in this study and to the generation of new ideas (Ritchie & Lewis, 2003: 58). Whilst individual interviews will be conducted between the researcher and each participant, the focus group will involve a smaller group of participants. This form of group process and interaction can enhance the value of the data collected, especially when context affects insight (Ritchie & Lewis, 2003: 58) but interaction must be both invited and managed (Saunders *et al.*, 2011: 345).

Focus groups are not considered appropriate if interpersonal influence may negatively impact the credibility of the results in a study. In this context, the researcher considers interpersonal influence to be advantageous to diminish the impact of the researcher and amplify the perspectives of the participants, reduce researcher bias and elicit deeper insights from research subjects (Ritchie & Lewis, 2003: 171; Saunders *et al.*, 2011: 326).

The data to be collected in the focus group is expected to be less detailed, but of higher quality due to the interaction between participants (Ritchie & Lewis, 2003: 58). Participants will be able to consider their responses and refine them based on what they hear from others. They will also be able to respond to and build on other participants' comments (Ritchie & Lewis, 2003: 58), which aligns with the social constructivist/ interpretivist research paradigm (Cresswell, 2007: 20; Lombardo & Kantola, 2021: 125-126). The researcher will need to ensure egalitarian participation (Saunders *et al.*, 2011: 345) and that the dynamics of the focus group do not intimidate participants (Saunders *et al.*, 2011: 344).

Ritchie and Lewis (2003: 142) present the notion of 'researcher as instrument', which is applicable throughout the study but especially in the context of interviews and focus groups. The implication of this is that the quality of these interactions depends on the personal and professional qualities and skills of the researcher. The credibility of the interview and focus group processes will depend on the bearing and skills of the researcher, the demeanour of participants and practical considerations such as location and recording arrangements (Saunders *et al.*, 2011: 328-334).

The methods to be used for analysis of the qualitative data to be collected from participants in this study will be introduced in the next sub-section.

### 1.8.2.3 Data Analysis

Qualitative data analysis provides for theory to be developed from raw participant data (Saunders *et al.*, 2011: 480). Raw data is unprocessed data, just as it is generated in the field. It is usually messy and bulky, and analysing orders this messy data into a coherent structure (Ritchie and Lewis, 2003: 213). In this study, the outcome of this process will be a sense-making framework to improve stakeholder engagement in the context of wicked problems.

The thick data (Fiaidhi & Mohammed, 2019; Ritchie & Lewis, 2003: 5, 21) to be produced in the interviews will require in-depth, emergent qualitative analysis (Ritchie & Lewis, 2003: 5, 21) to produce a sense-making framework representative of the knowledge and experience of participants (Ritchie & Lewis, 2003: 5, 21), built on the foundation of existing theory (Saunders *et al.*, 2011: 59). Data will be analysed using ATLAS.ti, a CAQDAS solution. This platform is a tool which allows for the coding of data fragments and clustering of these codes into themes, but it does not replace the imperative for the researcher to analyse the data (Saunders *et al.*, 2011: 493).

Some level of informal analysis of the data is expected to occur during the data collection phase, as the researcher explores certain topics with participants, tests emerging patterns and probes for depth of meaning (Saunders *et al.*, 2011: 338, 488). In response to the researcher's interpretations of participant responses during the interviews and focus group, the semi-structured interview format will allow the researcher to immediately probe these responses

for deeper meaning, explore alternative concepts with participants or test her own interpretations (Saunders *et al.*, 2011: 320).

The purpose of coding is to convert data into a usable format by identifying connected ideas, concepts and themes (Castleberry & Nolen, 2018) and the formal analysis of thick data is focused on depth of meaning and insight (Fiaidhi & Mohammed, 2019; Saunders *et al.*, 2011: 482). Inductive reasoning is pattern-based, and the analysis of the data will be directed to identifying patterns to create the sense-making framework (Cresswell, 2007, 51). Through several iterative rounds of coding, the researcher will develop a deeper understanding, integrate different data sources, and categorise the data to identify concepts from which theory can be built (Cresswell, 2007: 43; Saunders *et al.*, 2011: 482, 490). This progression is reflected in **Table 2** below.

Inductive research develops theory out of the rich soil of research data (Saunders *et al.*, 2011: 489). A classical inductive approach to coding involves coding raw data and then theming or categorising the codes. In practice, the social constructivist research paradigm means that the coding process will be informed by the conceptual framework. As Saunders *et al.* (2011: 490) asserted, even in an inductive study, commencing from theory links the study to existing knowledge and provides an initial framework.

Castleberry and Nolen (2018) advise that coding is not an exact science, and the coding process is unlikely to be as clearly structured as the theory suggests. There are several possible coding schemes which researchers can apply and which may be used in combination, especially as the coding commences (Castleberry & Nolen, 2018; Saldaña, 2013: 59-60). Coding schemes which are relevant to this study are outlined in **Table 2** below. They are roughly listed in the order in which they might be applied, and an indication has been provided of when they might be applied in this study. Saldaña (2013: 51) distinguishes two coding cycles.

**Table 2 Qualitative Coding Types**

(Saldaña, 2013: 261-268).

Coding Type	Explanation						Cycles	
		Application unlikely		Application possible		Application probable	1 <sup>st</sup>	2 <sup>nd</sup>
Eclectic coding	Purposeful combination of multiple coding techniques.							
Initial coding	Unstructured coding of fragments.							
Simultaneous coding	Multiple codes are assigned to data fragments.							
In vivo coding	Codes are named with the same words used by participants.							
Descriptive coding	Short phrases or other words are used to code.							
Emotional coding	Codes are identified which relate to emotional experiences.							
Focused coding	Coding to identify dominant themes							

Provisional coding	Coding which begins with a start list		
Pattern coding	Coding which uses a label or meta-code to theme codes		
Evaluation coding	Codes which distinguish constructs from their antitheses.		
Axial coding	Describes category properties and explores relationships		

First cycle coding will usually involve initial coding techniques, as demonstrated in **Table 2** above. Second cycle coding includes focused coding and axial coding. These techniques have emerged from grounded theory but are applicable in qualitative studies (Saldaña, 2013: 51).

Initial coding represents the initial analysis of the data. It is highly detailed and relatively unstructured. Coding methods which are most likely to be applied in initial coding in this study included simultaneous, *in vivo*, descriptive and emotional coding (Saldaña, 2013: 51, 261-268).

Themes begin to emerge during focused coding, which is most likely to occur in the second and third iterations but may already commence in the first cycle. Provisional coding identifies themes based on a start list, such as the themes from the conceptual framework. Pattern coding identifies additional themes which begin to emerge which are not on the start list. Evaluation coding might be used to distinguish antitheses such as ‘stakeholder engagement’ and ‘not stakeholder engagement’ (Saldaña, 2013: 51, 261-268).

Axial coding begins to describe categories, define themes and explore relationships between themes (Saldaña, 2013: 52).

In practice, data analysis is likely to be highly emergent, and whilst the theory provides an outline, as new insights are gained, gaps spotted and connections seen, codes, patterns and themes are likely to be continuously and simultaneously generated (Saunders *et al.*, 2011: 490).

The social constructivist/ interpretivist research paradigm justifies categorisation of data according to the researcher’s understanding and interpretation of the meaning of the data (Saunders *et al.*, 2011: 493). The comprehensiveness and validity of this analysis will, however, be a measure of the quality of the research (Saunders *et al.*, 2011: 484). The measures implemented to support the credibility of the study will be presented in section 4.5.

Once coding is completed, the researcher will structure the data into a refined narrative framework – the sense-making framework for stakeholder engagement (Saunders *et al.*, 2011: 490), to be introduced in section 5.5. Data analysis will lead to the narrative description of the findings, conclusions, and discoveries from the research data. It will involve sequencing ideas and demonstrating the logical flow of thought to create a coherent, meaningful picture to accurately represent the evidence and meet the research objectives (Ritchie & Lewis, 2003: 287–288; Saunders *et al.*, 2011: 497). The writing-up of the sense-making framework will present the last opportunity for the researcher to re-analyse her data and clarify her thoughts (Ritchie & Lewis, 2003: 287).

Converting the complex, non-linear, qualitative data gleaned from participants into a representative, coherent, linear, academic document can be particularly challenging. It will be essential for the researcher to be vigilant in managing the data with integrity and reporting on diverse perspectives, opinions, and views sometimes inconsistent with her prior perceptions or with the dominant flow of data (Ritchie & Lewis: 2003: 287, 289). Data displays will be created to supplement the narrative, aid analysis and interpretation and make the findings more readable (Saunders *et al.*, 2011: 505).

Sampling, data collection and data analysis methods have been introduced in this sub-section. The researcher will present the application of these principles in this study in Chapter 4. Having articulated the research concepts which will frame this study, the researcher will conclude this chapter by circumscribing the limits of the research, justifying its importance and defining the structure of the dissertation.

### **1.8.3 Delimitations and Scope**

It is important to define the limits of the study and its boundaries. These boundaries will suggest possibilities for future studies based on the findings of this research (Ritchie & Lewis, 2003: 159; Saunders *et al.*, 2011: 63). The current study focuses on exploring and reframing the concepts of stakeholder and stakeholder engagement in the context of wicked problems. The aim is to propose a sense-making framework (Odden & Russ, 2018) to improve stakeholder engagement in the context of wicked problems. Such a framework could inform further exploration of this construct (Ritchie & Lewis, 2003: 296; Saunders *et al.*, 2011: 62).

The most critical limitation of the study concerns wicked problems. The study is not focused on the resolution of wicked problems. No attempt will be made to explore or propose solutions for any specific wicked problem. This research will also not attempt to provide a comprehensive approach to mitigating or solving wicked problems. The aim of the study is to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems, and the exploration will be targeted to meet this aim.

Whilst stakeholders may be human or non-human, as discussed in section 2.3, the study focuses on human stakeholders since all stakeholders tend to be represented by people.

This research project will stop short of testing the use of the framework in practice. There is no intention to develop, derive or test interventions based on the stakeholder engagement framework. Future studies may explore the application of the framework to assessment and intervention. The study presupposes that there is no one right framing of the concept of stakeholder engagement and that the best that can be achieved through this research is the origination of a sense-making framework which will be more useful than those which exist and which might be improved upon in future (Boateng & Boateng, 2014; Sturmberg, 2018).

Having delineated the scope and limitations of the research, the researcher will proceed to justify the study.

#### **1.8.4 Justification for the Study**

Wicked problems can be extremely impactful (Dembczyk & Zaoral, 2014), and there is evidence to suggest that stakeholder engagement in this context is inadequate or ineffective (Moynihan, 2015; Tootla, 2021).

Research which might contribute to improved praxis in the context of wicked problems (Ison, Collins, & Wallis, 2015) is justified by the potentially catastrophic implications of wicked problems such as climate change, food security and energy (Bannink & Trommel, 2019; Watson, 2015), and the growing expectation that leaders and organisations should take some responsibility to engage with them (Reinecke & Ansari, 2016). The researcher believes that this research will add to the growing body of knowledge focused on this important subject.

This study is undertaken in the context of a postgraduate programme in managerial leadership. The research aim and question do not address leadership. However, the potential value of this research to managerial leaders is evident in studies which suggest that leaders have responsibilities to address wicked problems. Bazely (2019) proposes, for example, that leaders have a role to play in addressing wicked problems that affect financial sustainability in higher education. Leaders should also be mandated and held accountable for working together in the context of wicked problems (Danken *et al.*, 2016). Kroeger *et al.* (2022) indicate that leaders can work with values to bring stakeholders together to address wicked problems and grand challenges.

The context itself poses numerous challenges, and getting stakeholders to work effectively together for positive outcomes seems to be difficult. Through fostering greater insight into the wicked problem context, into the people connected with it and into the ways in which they do or could interact, the researcher intends to provide a framework which will be useful for identifying opportunities to improve stakeholder engagement. If the engagement can be improved then outcomes can potentially be improved with respect to the wicked problems, though this would require further investigation, as it is beyond the scope of this study.

This research intends to contribute insights which potentially enable practitioners and stakeholders to consider stakeholder engagement from a systemic perspective and the application of systemic responses to the issues which arise. In an environment where the focus may tend to be directed most frequently to the wicked problem itself, this research intends to direct attention equally to framing wicked problems, stakeholders and how they engage.

#### **1.9 Structure of the Dissertation**

The design and findings of this study are shaped by the researcher's relativist ontology. Knowledge is managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115) and applied through a social constructivist/ interpretivist research paradigm. That paradigm supports an exploratory design and inductive generation of theory

from qualitative data. A small group of participants will be selected using qualitative sampling methods, and qualitative data will be collected and analysed qualitatively to generate the sense-making framework.

**Table 3** summarises the research project. It illustrates which research activities primarily contribute to answering each of the research questions and which research questions primarily contribute to accomplishing each of the research objectives.

**Table 3 Summary of Research Project**

<b>Research Problem</b>		
Apparent failure of stakeholder engagement to respond effectively to wicked problems.		
<b>Aim and Objectives</b>	<b>Research Questions</b>	<b>Research Concepts and Activities</b>
<p><b>Aim</b></p> <p>Propose a sense-making framework for improving stakeholder engagement in the context of wicked problems</p>	<p><b>Primary Research Question</b></p> <p>How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?</p>	<p><b>Ontology</b> - Relativism  <b>Epistemology</b> - Subjectivist  <b>Paradigm</b> - Social Constructivist / Interpretivist  <b>Design</b> - Exploratory  <b>Type</b> - Inductive  <b>Method</b> - Qualitative</p>
<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>	<p><b>SRQ1</b></p> <p>What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</p>	Literature review.
	<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>	Conceptual framework. Individual interviews.
<p><b>RO2</b></p> <p>Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.</p>	<p><b>SRQ3</b></p> <p>How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>	Individual interviews analysis. Sense-making framework.



<p><b>RO3</b></p> <p>Review the proposed sense-making framework for coherence and application to improving stakeholder engagement</p>	<p><b>SRQ4</b></p> <p>How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>	<p>Focus group interviews</p> <p>Focus group analysis.</p> <p>Recommendations.</p>
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The dissertation is written up in six chapters as follows:

In Chapter 1, the researcher introduces the study, presents the research problem, provides background and context, and explains her ontology and epistemology. The structural framework for the study is articulated, including the aim, objectives, research questions, and an introduction to the research design and methodology.

In Chapter 2, the researcher documents the literature review, which includes a brief review of engagement as a universal construct, stakeholders, stakeholder engagement and wicked problems.

In Chapter 3, the researcher provides a conceptual framework induced from the literature review. It frames wicked problems, stakeholders and stakeholder engagement.

In Chapter 4, the researcher outlines the design of the research and the methods used to collect and analyse the data to be collected in the semi-structured participant interviews.

In Chapter 5, the researcher presents the findings of the fieldwork, as analysed by the researcher. The findings will be compared with the conceptual framework presented in Chapter 3 and with relevant theory from the literature review, and a revised sense-making framework will be included.

In Chapter 6, the researcher concludes the research report. This chapter reviews the previous chapters and the research process, presenting a summative argument. Potential applications for the current research will be highlighted, and recommendations made for future studies.

### **1.10 Conclusion**

This chapter has served to introduce the research and the ontological and epistemological frames of reference. It has highlighted the research problem and explained the context of the study, the assumptions made and the limitations of scope. The study has been titled, and the aim, objectives and research questions were clearly delineated.

The researcher has framed this study in the context of wicked problems, such as climate change, corruption, poverty and health inequities. She has explained their intractability and the seeming inadequacy of stakeholder responses to these issues. The potential involvement in these problems of large groups of stakeholders was highlighted, and the researcher focused attention on the propensity for stakeholder engagement efforts to fail in relation to these issues.

In response to this research problem, the researcher framed the following research question:

‘How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?’

In the rest of this chapter, she has introduced the research design and methodology and will now proceed to a literature review which will explore existing theory related to engagement, stakeholder engagement and wicked problems. Current literature will be examined, and integrating relationships sought between concepts.

## **2 LITERATURE REVIEW**

### **2.1 Introduction**

Chapter 1 introduced the research problem, aims and objectives for the study. The research concepts were outlined, the scope and limitations defined, and the value of the research justified.

The design and findings of this study are shaped by the researcher's relativist ontology. Knowledge is managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115) and applied through a social constructivist/ interpretivist research paradigm. That paradigm supports an exploratory design and inductive generation of theory from qualitative data. This literature review is part of the exploratory journey and represents a dialogue between the researcher and other theorists, past and present. It lays a foundation on which the sense-making framework can be constructed.

This chapter commences with an introduction to the theory, which informs the literature review, and an explanation of how these principles were applied in this study. The researcher then proceeds to consider relevant data from the literature. This has been explained in more detail in the next sub-section.

#### **2.1.1 Purpose and Approach to the Literature Review**

Data collection for exploratory research generally commences with a literature review (Ritchie & Lewis, 2003: 56; Saunders *et al.*, 2011; 140). The purpose of this literature review is to place the study in the context of other research relevant to the topic and to demonstrate how the study complements existing current theory (Saunders *et al.*, 2011: 537). It allows the researcher to show awareness of current knowledge in her field, demonstrate some of the limitations or gaps in existing knowledge (Saunders *et al.*, 2011: 59-65) and identify how the current research project fits into the wider theoretical and social constructivist context (Amineh & Asl, 2015; Kara, 2019).

The review also assists with the refinement of the research process and tools, especially the framing of the research questionnaires for the participant interviews (Ritchie & Lewis, 2003: 49, 116; Saunders *et al.*, 2011: 305), which will be discussed in sub-section 4.4.1. The review followed an iterative process of asking research questions, defining parameters for qualifying literature, sourcing literature, evaluating it and recording the key concepts. As far as possible, the literature consulted was not older than ten years. On the advice of academic support staff, initial searches focused on material that was five or fewer years old. The long duration of this study meant that most literature was thus still within the ten year target period.

A few key references are older than ten years. Foundational articles on engagement (Kahn, 1990) and wicked problems (Rittel & Webber, 1973) are consulted extensively. Research methodology texts from Saunders *et al.* (2011) and Ritchie and Lewis (2003) are found to be

especially clear and comprehensive texts, with good descriptions of foundational research concepts. Some other older references are included when an insight is especially relevant and a more current expression cannot be found.

A critical literature review critiques rhetoric, tradition, authority and objectivity (Saunders *et al.*, 2011: 64-65). To critique the rhetoric means evaluating the use of language and the effectiveness of the argument. For example, it was evident early in the literature review that different writers use different linguistic forms of the term engagement without distinguishing the different underlying meanings of these alternative forms. This insight sparked the discussion in section 2.2.

Critiquing tradition and authority means evaluating conventional wisdom and dominant views (Saunders *et al.*, 2011: 64-65). Sub-section 2.5.2 focuses specifically on critiquing the wicked problem concept. Whilst authors still refer to the original framing of wicked problems by Rittel and Webber (1973), there are numerous researchers who offer alternative perspectives, and these views are highlighted.

To critique objectivity is to be conscious of bias (Saunders *et al.*, 2011: 64-65). One of the ways in which the researcher sought to minimise bias was to initially review a number of articles about the wicked problems, stakeholders and stakeholder engagement concepts to clarify foundational perspectives. It was only later in the review process that she searched specifically for more information about specific phrases and ideas which emerged from these initial readings or to fill gaps which had obviously not been covered.

Critiques are justified with a clear academic argument and accurate referencing to acknowledge experts within the fields under review. These critiques focus on research which supports or refutes the researcher's initial ideas, distinguishes between facts and opinions, and above all, seeks to ensure extensive background knowledge (Saunders *et al.*, 2011: 64-65). The primary focus of the literature review is on the first secondary research question. However, search, and exploration of existing literature continue throughout the study (Saunders *et al.*, 2011: 60) and have some bearing on answering all the research questions.

In section 1.9, **Table 3** summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of the literature review to achieving the aim of the research.

**Extract from Table 3 Summary of Research Project (Duplicated)**

Aim and Objectives	Research Questions	Research Concepts and Activities
<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>	<p><b>SRQ1</b></p> <p>What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</p>	<p>Literature review.</p>

To explore and begin to reframe the concepts of wicked problems, stakeholders and stakeholder engagement, the researcher has to explore the current theoretical perspectives which frame those three key concepts. The first secondary research question is aligned with the three concepts as indicated in **Table 4**.

An additional question in the table relates to the concept of engagement. In addition to answering the questions specifically linked to meeting the first research objective, the researcher considers it important to explore theory related to the universal concept of engagement (Bonometti, Ringer, Ruiz, Wade & Drachen, 2020). The reasons for this decision were explained in the introduction to section 2.2. The question which frames this exploration is included in **Table 4**.

**Table 4 Framing the Literature Review**

<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>		
<p><b>SRQ1</b></p> <p>What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</p>		
<p><b>Literature Review Tertiary Question 1 (LRTQ1)</b></p> <p>What current theoretical perspectives frame wicked problems?</p>	<p><b>Literature Review Tertiary Question 2 (LRTQ2)</b></p> <p>What current theoretical perspectives frame stakeholders</p>	<p><b>Literature Review Tertiary Question 3 (LRTQ3)</b></p> <p>What current theoretical perspectives frame stakeholder engagement?</p>
<p><b>Literature Review Additional Question (LRAQ)</b></p> <p>What current theoretical perspectives frame engagement?</p>		

The initial search focused on literature concerned with wicked problems, stakeholders and stakeholder engagement. Evaluation of this material was done manually using an Excel spreadsheet. In retrospect, using the CAQDAS programme (Saunders *et al.*, 2011: 480),

Atlas.ti, might have been more effective. As concepts and new ideas emerged, the exploration diverged extensively, and content was evaluated and integrated more immediately. This pattern continued as the study progressed and the dissertation gained structure.

New, more detailed questions emerged for the researcher as the review continued (Saunders *et al.*, 2011: 61). Examples of these questions included 1) How does the linguistic use of the word engagement differ between authors? 2) What major themes emerge from this article? 3) Is this theme evident in other articles? 4) What are the key qualities of a problem ecology? 5) What do complexity, change, and conflict look like intra-personally? 6) What existing processes are there for navigating stakeholder engagement? These reflective questions were not documented or articulated but influenced the researcher's exploratory journey (Nylblom & Hookway, 2016).

The researcher introduced perspectives from multiple disciplines (Saunders *et al.*, 2011: 61), including psychology (Klingler & Gray, 2015) and neuroscience (Mahawithanage, 2020), education (Trowler, 2016), ICT (Shalbfafan & Ballestrin, 2019), game design (Salen & Zimmerman, 2004: 5), sales and marketing (Vivek, Beatty & Morgan, 2012), health sciences and wellness (Babatunde, 2013), and organisational development and leadership (Juhro & Aulia, 2018).

In the next section, the researcher will present existing theory on the subject of engagement, highlighting alternative theoretical perspectives (Ritchie & Lewis, 2003: 38) and providing contrasting concepts (Saunders *et al.*, 2011: 63) to further clarify the construct (Rivard, 2020). She begins by explaining the challenges of defining engagement (Bonometti *et al.*, 2020), introducing some of the linguistic perspectives (González-Expósito, 2017) and explaining five distinct interpretations of the word.

## **2.2 Engagement**

The term stakeholder engagement, used extensively throughout this study and particularly in the title, aim, objectives and research questions, is a compound term. This means that it consists of two full-valued words where, generally, the second word is considered to have greater importance (Zikrullaeva & Omonov, 2019). Before proceeding to explore the literature in respect of the compound term (Zikrullaeva & Omonov, 2019), 'stakeholder engagement', in this section, the researcher clarifies alternative interpretations of the term engagement (Hammersley, 2015; Sandmann, Furco & Adams, 2016: 2) to support the exploration of stakeholder engagement.

The additional question (LRAQ) explored in this section is:

What current theoretical perspectives frame engagement?

### **2.2.1 The Challenge of Defining Engagement**

The researcher begins by explaining the origins and fuzziness of the engagement construct (Bonometti *et al.*, 2020; Ziegler, Kemper & Lenzner, 2015). A fuzzy concept is one which is too complex or imprecise to define exactly (Ziegler *et al.*, 2015).

Engagement is a fuzzy concept (Bonometti *et al.*, 2020; Ziegler *et al.*, 2015), an unobservable construct, an idea living in the minds of theorists who are dependent on mental models to describe something that has been experienced in the real world (Kolb, 1984; Odden & Russ, 2018; Scott, 2011). Nonetheless, it is a ubiquitous term used to describe interactions and communication in multiple disciplinary environments and interpreted through different cultural lenses. It is critical to the development of social capital and the resolution of real-world problems and may have both positive and negative consequences (Johnston & Taylor, 2018a: 3).

The first theoretical framing of engagement is elucidated in a seminal grounded theory work by Kahn (1990), titled 'Psychological Conditions of Personal Engagement and Disengagement at Work', which is strongly informed by his psychological ontology (Shuck, Osam, Zigarmi & Nimon, 2017). Historically, engagement has been described as a process, a state of being, a personal orientation and a strategic approach. It is both experience, which lives in the mind, and behaviour manifest in action (Johnston & Taylor, 2018a: 5). Communications theory has persuasively argued for a dialogic formulation of engagement, emphasising that it is both a process and an outcome of interactions (Johnston & Taylor, 2018a: 11).

The word 'engagement' is generally used in the literature without discriminating between its different linguistic applications (González-Expósito, 2017). As Bhalla and Sharma (2017) and Raajpoot and Ghilni-Wage (2019) point out, the word is ambiguous. Perhaps the lack of recognition of this linguistic challenge (González-Expósito, 2017) may be one of the reasons why researchers have found it so difficult to effectively conceptualise engagement (Sandmann *et al.*, 2016: 6).

To support understanding of the terms engagement and stakeholder engagement, to answer the first secondary research question, the researcher has distinguished five dominant uses of the word engagement as evidenced in the literature consulted: engagement as interaction between stakeholders, engagement as personal investment, engagement as behaviour intended to lead or involve others, engagement as a process and engagement as experience. In the next five sub-sections, the researcher will present current research related to these five uses of the word.

### **2.2.2 Engagement as Interaction**

The first use of the word refers to "an engagement" (Marcano, 2015: 9; Talley, Schneider & Lindquist, 2016: 4) or "engagement with" (Harmeling, Moffett, Arnold & Carlson, 2017: 328; Henderson, Selwyn, Finger & Aston, 2015: 308; Zemler, 2016: 8).

Johnston and Taylor (2018a: 4) propose that engagement is ultimately about the outcomes of people acting and deciding with others. A definition provided by Yousuf (2018: 261) reflects the idea of engagement as interaction:

“Engagement is a balanced act of purposeful interaction among two or more participants who are willing to exchange resources in return for own benefits. This definition may apply to engagement at macro, meso and micro levels, in which participants may vary from individuals to social institutions who engage with one another on territorial or virtual space for mutual benefits”.

Engagements can further be described as interactions with temporal and evolutionary properties, meaning that they are time-bound and change over time (Hanif & Khan, 2016; Kahn, 1990; Lehtinen, Aaltonen & Rajala, 2019).

Slack, Corlett and Morris (2015) support a contractual view of engagement, demonstrating that engagements are governed and held together by explicit or implicit agreements or rules of reciprocal and responsive exchange. These agreements define the roles, costs, and benefits of the interaction. The benefits of the engagement are usually linked to needs, values and goals, and contribution is recognised as voluntary (Green, Finkel, Fitzsimons & Gino, 2017; Hanif & Khan, 2016; Slack *et al.*, 2015).

The researcher has presented an argument for an interpretation of ‘engagement’ as bilateral interaction between stakeholders (Slack *et al.*, 2015) in this sub-section and explained some of the properties of these interactions. She will proceed to consider ‘engagement’ as personal investment (Kahn, 1990).

### **2.2.3 Engagement as Investment**

Theorists refer, secondly, to “engagement in” activities, i.e. the engagement behaviour which people exhibit or what they do because they are in a state of engaging: their investment of themselves (Burch, Heller, Burch, Freed & Steed, 2015: 224; Lehtinen & Aaltonen, 2020: 95; Talley *et al.*, 2016: 1).

This use of ‘engagement’ is best reflected in a definition provided by Kahn (1990: 694): “The behaviours by which people bring in their personal selves during work role performance”. Several words and phrases are used interchangeably by Kahn (1990) to describe engagement behaviour. They are all synonymous with the phrases “investment of self” (Kahn, 1990: 719) or “personal investment” (van Ittersum, 2015: 6).

Kahn (1990) is clear that individuals can be expected to vary the levels of resources which they invest in engagements. He speaks of the daily ebbs and flows, bringing in and leaving out, discreet moments, self-adjustment, alternating expression and defence, involvement and alienation, commitment, and self-estrangement.



Kumar, de Bruyn and Bushney (2020) link wellness dimensions with engagement, showing a positive correlation between the availability of personal resources and employee investment. Chipchase, Davidson, Blackstock, Bye, Clothier, Klupp, Nickson, Turner and Williams (2017) offer a five-fold framing of engagement as behavioural, social, emotional, intellectual, and spiritual. These various aspects of self which people invest are echoed in well-being literature, where Beauchemin *et al.* (2019) refer to physical, social, emotional, intellectual, and spiritual aspects of wellness.

Internal and external resources increase the availability of energy available for investment. Thus, the higher the ratio of resources to the demands presented to the individual, the greater the likelihood that they will engage or invest personally (Bhalla & Sharma, 2017; Digwamaje, 2015; Fletcher, Bailey & Gilman, 2018; Hanif & Khan, 2016; Kahn, 1990). In contrast, when resources become depleted, their availability for investment diminishes, and while short-term adaptations may help individuals to manage the demand, unsustainable stress can lead to breakdown (Durand-Bush, McNeill, Harding & Dobransky, 2015; Redmond, 2017).

Choice Theory develops the idea that life consists of behaviour chosen to meet basic human needs (Klingler & Gray, 2015). Engagement role players are autonomous agents with choice who decide to create relational connections and to interact (Attfield, Kazai, Lalmas & Pinaworski, 2011; Johnston & Taylor, 2018b: 175; Short, Rebar, Plotnikoff & Vandelanotte, 2015). Assuming that they have the resources to invest, people's actions and choices depend on how they perceive that the rewards or threats in interactions will stack up against their individual needs for belonging, power, freedom, fun and survival, compared to the quality or ideal world which they have personally chosen (Klingler & Gray, 2015; Turkdogan, 2017: 7-11). Maslow (1987), cited in Turkdogan (2017: 6), identifies five different primary needs from those identified by Glasser (1999) cited in Klingler and Gray (2015); physiological, safety and security, love and belonging, self-esteem and self-actualisation and Rock (1987), cited in Sullivan (2018) identifies yet another five needs; status, certainty, autonomy, relatedness, and fairness.

This second form of engagement is thus a voluntary investment of available personal resources in a focal agent interaction (Brodie, Hollebeek, Jurić & Ilić, 2011; Vivek *et al.*, 2012) within a system (Blignaut & Aronson, 2020) chosen to attain rewards or avoid threats related to personal needs and goals (Hollebeek, Srivastava & Chen, 2016b; Juhro & Aulia, 2018; Sullivan, 2018).

The researcher has explained engagement as personal investment (Kahn, 1990) in this subsection. She has linked engagement as personal investment to theories of well-being, choice, need and motivation (Klingler & Gray, 2015; Turkdogan, 2017: 3, 6).

#### **2.2.4 Engagement as Leadership**

The research also focuses on the "engagement of" people, the intentional efforts to influence the engagement of others (Eikelboom, 2016; Harmeling *et al.*, 2017; Lehtinen & Aaltonen,

2020; Luoma-aho, 2015). This use of 'engagement' is reflected in the definition by Johnston, Ryan and Taylor (2019: 37) "The pattern of activities implemented by agencies with the aim to collaborate with and through community members to address, respond or mitigate issues that affect the health, well-being or social status of the community".

People have an ever-increasing range of choices regarding their investment of time (Skøien, 2018). This requires leaders to apply themselves with great intentionality to creating quality experiences, products or situations in which individuals choose to invest time, attention and emotion (Grobler, 2017; Raflesia, Surendro, Passarella, 2017; Short *et al.*, 2015; Skøien, 2018; Tziner, Shkoler & Bat Zur, 2019). Understanding why people choose to engage is critical to leaders who seek to create a coherent and integrated system of policies, practices, and procedures to engage others (Albrecht, Bakker, Gruman, Macey & Saks, 2015).

The Social Exchange Theory of engagement suggests that organisations should provide employees with a positive return on investment (Akingbola & van den Berg, 2019). Green *et al.* (2017) supported the idea that employers should foster need-fulfilling experiences, especially those which allow for self-expression. Deskins (2017) complements this approach, suggesting that these practices should be emotional, cognitive, and behavioural, although she did not elucidate clearly what this means.

McManus and Mosca (2015) highlight the importance of trust, fairness, rewards, and attainable goals as foundations for engaging others. Neuroscientist Rock (1987), cited in Sullivan (2018) urges managers to reduce threats to manageable levels and increase safety (Kahn, 1990), and reward through influencing the extent to which others experience greater status, rewarding levels of certainty and autonomy and desirable experiences of relatedness and fairness (Sullivan, 2018).

As van den Wijngaard (2019) and Farrell (2019) discuss, individuals and organisations can moderate the demands and resources which influence engagement to increase the likelihood of equity between these two forces. The JD-R Model calls on leaders to manage demands and to provide resources to support success (Albrecht *et al.*, 2015; Bakker, 2015; Bakker & Demerouti, 2016).

Leaders must invest effort to engage people (Gandolfi & Stone, 2016; Zakaria, Idris & Ismail, 2017). Managing demands requires leaders to ensure that the physical or psychological investments which people must exert to meet expectations are realistic. These efforts should be supported by the provision of physical, social, or organisational resources which make tasks more achievable or which increase employee competence (Bakker & Demerouti, 2016; Garza, 2019).

The individual nature of the psychological contract which underpins engagement (Hanif & Khan, 2016; Kahn, 1990) presents a strong argument for considering the personalisation of engagement efforts aligned with the individualism of the human journey (Williams-Munger,

2018). Thus, leaders should consider the individual nature of needs (McManus & Mosca, 2015), personal perceptions of meaningfulness and how individuals experience reward and choice (van Ittersum, 2015).

This sub-section has focused on 'engagement' as a leadership or influencing practice, the efforts individuals make to promote investment by others within interactions. Evidence has been presented to demonstrate the conditions which individuals can intentionally create in an attempt to elicit engagement from others.

### **2.2.5 Engagement as Process**

In this sub-section, the researcher presents research focused on the "engagement process" (Bonometti *et al.*, 2020; Jordan *et al.*, 2016; Shuck *et al.*, 2017; Skøien, 2018). This use of 'engagement' is reflected in the definition provided by Johnston and Taylor (2018a: 3) "An iterative, dynamic process, where participation, experience, and shared action emerge as central components".

Engagement as a process focuses on the temporal nature of engagement, its evolution over time and progression into a longer-term, sustained, albeit dynamic, interface between people (Harmeling *et al.*, 2017; Houghton & Stewart, 2017; Johnston & Taylor, 2018a: 3; Mayer, 2016). This perspective enables an understanding of the progressive development of interactions related to experience and context (Bonometti *et al.*, 2020). It illustrates how people are drawn into deeper, more trusting connections and increased activity (Bright, Kayes, Worrall & McPherson, 2015) through communication and listening, feedback, the addressing of needs, appreciation for strengths and competence (Kahn, 1990; Skøien, 2018).

Engagement processes might proceed in sequence from an initial interaction to sustained connection, temporary disengagements, re-engagements, and eventual extinction, as observed in software users (Bonometti *et al.*, 2020). In contrast, customer engagement processes may not follow a defined path but are rather a series of aggregated states varying in intensity, driven primarily by involvement, interaction, and experience (Carvalho & Fernandes, 2018; Lourenço, 2016). Shuck *et al.* (2017) consider the process occurring within people as they engage, proposing that engagement progresses from cognition, through emotion and into behaviour. Feedback and experience then foster new cognitive engagements and so on.

The researcher has referenced perspectives related to the process of engagement in this sub-section, highlighting its temporal and evolutionary nature. In the next sub-section, she will present current research relating to the fifth use of the word 'engagement'.

### **2.2.6 Engagement as Experience**

Engagement may finally be the "experience of engagement", the subjective sense of being engaged (Deskins, 2017: 23, 101; Naumann, Bowden & Gabbott, 2017: 172; Osborne &

Hammoud, 2017: 53; Pradhan & Panda, 2018: 166). This use of 'engagement' is reflected in the definition of Johnston *et al.* (2019: 37) "The emotional dimension of response such as enjoyment, belonging, or repulsion".

Like any other experience (O'Connor & Crowley-Henry, 2017; Tomkins, 2017: 2), engagement experiences are deeply personal (van Ittersum, 2015; Ward, 2018), differing from one individual to another based on a perception of value (Farrier-Williams, 2019). We cannot get into the minds of people to identify or extract what they are experiencing from the realms of their thought and must rely on imagination and intuition to help us to gain insight (Tomkins & Eatough, 2013).

In this form, engagement is fundamentally the experience of energy which arises within individuals and motivates behaviour in response to concrete lived experiences (Bakker & Demerouti, 2016; Digwamaje, 2015; Green *et al.*, 2017). Energy elicited in interactions (Bakker & Demerouti, 2016; Deskins, 2017; Digwamaje, 2015; Green *et al.*, 2017) has the potential to enhance innate personal energy (Bhalla & Sharma, 2017), and as discussed in sub-section 2.2.3, the availability of personal resources makes investment possible (Bhalla & Sharma, 2017; Digwamaje, 2015; Fletcher *et al.*, 2018; Hanif & Khan, 2016; Kahn, 1990).

Experiences are personally evaluated in relation to expectations and needs (Green *et al.*, 2017; Turkdogan, 2017: 7-11). When expectations or needs are met, the resultant positive effect energises people, increasing their capital or resources and fostering engagement and further interaction (Bonometti *et al.*, 2020; Deskins, 2017; Green *et al.*, 2017). Put another way, people will be engaged when their efforts generate progress towards a meaningful goal, motivating them to engage further (Amabile, 2019; Amabile & Pratt, 2016; Sheldon, Prentice, Halusic & Schüler, 2015). In contrast, engagement was found to be less likely when customers experienced a lack of power or control over outcomes (Carvalho & Fernandes, 2018; Morrongiello, N'Goala & Kreziak, 2017).

When people lack the resources to meet a demand (Bakker, 2015; Bakker & Demerouti, 2016) or do not perceive a worthwhile return on the investment required (Akingbola & van den Berg, 2019), the absence of anticipated reward (Juhro & Aulia, 2018; Sullivan, 2018), positive affective shift (Bailey, Madden, Alfes & Fletcher, 2018; Schaufeli, 2013), or need satisfaction makes engagement unlikely (Bakker & Demerouti, 2016; Green *et al.*, 2017; Kahn, 1990; Turkdogan, 2017: 3).

Csikszentmihalyi (1990: 227) described a specific framing of optimal work experience, which he termed "flow". He asserts that the best experiences are not passive and relaxing, but are associated with feeling positive, consciously in control, challenged, energised, and engrossed. The sense of accomplishment and reward from achieving challenging tasks is likely to foster further engagement (Bakker & Demerouti, 2016; van Ittersum, 2015). There may be a difference between flow (Csikszentmihalyi, 1990: 227) and engagement (Kahn, 1990). Sartono

and Ardhani (2016) argue that flow is a more complex construct and that engagement is more intransigent.

In outlining the engagement experience in this sub-section, the researcher has illustrated the challenges inherent in understanding the subjective and personal reality of engagement (van Ittersum, 2015; Ward, 2018). For completion, the researcher briefly considers alternatives to engagement and negatively-valenced engagement in the next two sub-sections.

### **2.2.7 Non-engagement and Negatively-valenced Engagement**

Although the scope of this study excludes consideration of non-engagement, for the sake of completion, in this section, the researcher briefly mentions various forms of non-engagement.

One of the distinctive characteristics of engagement is how it fluctuates in relation to the context (Bakker, 2015; Bakker & Demerouti, 2016; Bledow, Schmitt, Frese & Kühnel, 2011; Hollebeek, Conduit & Brodie, 2016a; Hollebeek *et al.*, 2016b; Hurd, 2014; Ilies, Aw & Pluut, 2015; Kahn, 1990; Vivek *et al.*, 2012), which may interfere with or support the process of engagement (Bonometti *et al.*, 2020). Full engagement is not the only possible outcome of interactions (Fletcher *et al.*, 2018; Halverson, 2016; Skøien, 2018).

Chipchase *et al.* (2017), Johnston *et al.* (2019), Osei-Kojo and Andrews (2016), Varenova (2017) and Willis (2015), writing about engagement in different fields, reference a generic non-engagement or absence of engagement to describe people who are not fully engaged. Disengagement was introduced by Kahn (1990) at the other end of a dynamic continuum. However, he did not explore concepts such as boredom (Elpidorou, 2018), burnout (Maslach & Leiter, 2016) or workaholism, considered by later authors to be related to both engagement and disengagement (Atroszko & Griffiths, 2017; Bakker & Demerouti, 2016; Sulea, van Beek, Sarbescu, Virga & Schaufeli, 2015).

It seems important to differentiate between various states of whole or partial non-engagement (Chipchase *et al.*, 2017; Johnston *et al.*, 2019; Osei-Kojo & Andrews, 2016; Varenova, 2017; Willis, 2015) between the complete absence of investment and not being fully engaged. However, that discussion is outside the scope of this study.

Engagement is generally considered to be a positive quality (Di Stefano & Gaudiino, 2019; Mazzetti, Schaufeli & Guglielmi, 2018; Tóth-Király, Morin & Salmela-Aro, 2020), but engagement may also be negatively-valenced, as proposed by Trowler (2016). Engagement may have a dark side. An individual can be engaged emotionally, cognitively, or behaviourally in a way which may seem negative, such as passionately fighting for a cause (Trowler, 2016). Such negative engagement is usually targeted and may be intentionally destructive (Lievonon, Luoma-aho, and Bowden in Johnston & Taylor, 2018a: 533). Chipchase *et al.* (2017) affirm the notion of negative engagement, such as disruptive behaviour or an inner affective conflict in an uncomfortable environment and Lacmanović (2017) suggests that negative emotions can be key to focusing engagement on problems.

Section 2.2 has explored engagement and provided a selection of definitions and theoretical perspectives. Five alternative uses of the word engagement were identified, which suggest that over time (Hanif & Khan, 2016; Kahn, 1990; Lehtinen *et al.*, 2019), people choose (Klingler & Gray, 2015) to engage their personal resources (Kahn, 1990) in interactions (Yousuf, 2018) which provide them with a positive experience or return on their investment (Akingbola & van den Berg, 2019; Johnston *et al.*, 2019).

The theoretical insights in section 2.2 will inform the understanding of stakeholder engagement presented in the conceptual framework in Chapter 3 and contribute to answering the first secondary research question. The five linguistic perspectives focus attention on different aspects of stakeholder engagement which can potentially be improved to answer the fourth secondary research question. They further clarify the specific dynamics which are being considered when evaluating stakeholder engagement. In section 2.4, the researcher will use this general engagement framework to consider literature in respect of stakeholder engagement.

### **2.3 Stakeholders**

In this section, the researcher introduces insights from the literature regarding stakeholders. She explains their role and identity and some of the dynamics which influence their perspectives and behaviours.

The tertiary literature question (LRTQ2) explored in this section is:

What current theoretical perspectives frame stakeholders?

Answering this question contributes to answering the first secondary research question.

Organisations operate in the context of broader systems and need to constantly adjust to dynamics beyond their boundaries (Bazely, 2019). Within these systems, stakeholders may include business owners and shareholders, employees and customers, suppliers, associated communities, politicians and activists, agents of government (Dembczyk & Zaoral, 2014; Heikkurinen & Mäkinen, 2018: 3) and even non-human stakeholders such as natural systems (Baeder, 2018; Heikkurinen & Mäkinen, 2018: 5; Pierroux, 2018: 132). Each of these may be actively or passively involved in concerns of mutual interest (Dembczyk & Zaoral, 2014; Keenan, 2020).

Stakeholders are self-organising agents, influenced by the system and with systemic influence through their interactions and feedback (Burman, Alphane & Mollel, 2017). They differ in many ways, including their power, interests (Du & Kadyova, 2016; Heikkurinen & Mäkinen, 2018: 5; Kennedy *et al.*, 2017; Watson, 2015), values (Kennedy *et al.*, 2017; Watson, 2015), mandates (Moynihan, 2015), strategic decision-making processes (Du & Kadyova, 2016; Heikkurinen & Mäkinen, 2018: 5; Moynihan, 2015; Watson, 2015), cultural norms (Heikkurinen & Mäkinen, 2018; Moynihan, 2015: 14), rights (Heikkurinen & Mäkinen, 2018: 5)

and expertise (Du & Kadyova, 2016; Heikkurinen & Mäkinen, 2018: 14). These differences sometimes result in conflictual interactions. Lack of trust, polarised perspectives and cynicism make it difficult for stakeholders to engage productively with each other and with issues (Carcasson & Sprain, 2016; Kpamma, Adjei-Kumi, Ayarkwa & Adinyira, 2017).

Whilst motivations (Desai, 2018) and stakes within the system differ, stakeholders are broadly united in their quest for value (Dembczyk & Zaoral, 2014). They are of interest because of their interdependence (Du & Kadyova, 2016). Their collective identity and character reflect all the individuals included in the community (Heikkurinen & Mäkinen, 2018: 4). Within a system of stakeholders, identities and levels of cohesion impact the different rights and claims of role players. Stakeholders may be classified and privileged according to the power they possess within the system and according to the legitimacy and urgency of their claims (Du & Kadyova, 2016).

Traditional stakeholder classification systems tend to be binary in nature. For example, internal or external; primary or secondary. However, in practice, stakeholders tend to be classified according to their base motivations and philosophical perspectives, such as political or economic interests (Heikkurinen & Mäkinen, 2018: 4,9). Stakeholders may thus gain prominence according to their significance. When they are central to survival, and when interdependence is high, they may be deemed to be primary stakeholders. The impacts on and by secondary stakeholders are usually indirect and may thus be neglected (Du & Kadyova, 2016; Goodman, Korsunova & Halme, 2017).

The scale and scope of stakeholder engagements may vary in formality (Desai, 2018), temporally, geographically, politically, and culturally (Kpamma *et al.*, 2017). The development of a stakeholder system may be planned and structured. In this case, roles will be clearly defined, and stakeholders may be appropriately engaged at different stages of the developmental process. However, these systems may also evolve organically as the need to involve other individuals or organisations emerges (Watson, 2015).

Stakeholder knowledge, perspectives, views, and preferences constantly change (Watson, 2015), and stakeholder systems are impacted by the introduction of new role players or technologies (Jonas, Boha, Sörhammar & Moeslein, 2018). For example, with economic interests becoming increasingly globalised and traditional governance systems increasingly ineffectual, large multinational corporations are gaining power as their influence spreads across international boundaries. This makes self-regulation and integrity increasingly necessary (Heikkurinen & Mäkinen, 2018: 8).

With the modernisation of models of creation and consumption, stakeholders are more integral to, not separate from, a complex network of shifting individual and organisational parts and both visible and less obvious interactions (Gregory, Atkins, Midgley & Hodgson, 2020; Heikkurinen & Mäkinen, 2018: 3). The literature reveals an emphasis on stakeholder identity, roles and power dynamics (Du & Kadyova, 2016). Scant attention seems to have been

paid to understanding stakeholders as people, representing either their own interests or the interests of a group, organisation or inanimate entity (Baeder, 2018; Heikkurinen & Mäkinen, 2018: 5; Pierroux, 2018: 132).

In the conceptual framework in Chapter 3, the researcher will integrate the perspectives presented in this section with a deeper understanding of stakeholders as individuals, informed by the whole person theories typified by Beauchemin *et al.* (2019). In so doing, she will explore the implications of stakeholder personhood based on why and how they invest personally in interactions and stakeholder engagement processes. The emphasis will be on stakeholders as individual people, bearing in mind that they may represent a collective or other entity.

In this sub-section, the researcher has introduced stakeholders as individuals or collectives and explained some of the ways in which they are connected and relate to one another systemically (Gregory *et al.*, 2020; Heikkurinen & Mäkinen, 2018: 3,5; Watson, 2015). In the next section, she will focus on engagement between, by, and of stakeholders, articulating key dynamics of these phenomena.

## **2.4 Stakeholder Engagement**

In this section, the researcher introduced insights from the literature regarding stakeholder engagement.

The tertiary literature question (LRTQ3) explored in this section is:

What current theoretical perspectives frame stakeholder engagement?

Answering this question contributes to answering the first secondary research question.

Stakeholder engagement may be conceived differently depending on the perspective from which it is viewed, making it difficult to identify key concepts and develop practice standards (Du & Kadyova, 2016; Talley *et al.*, 2016). Poor definitions and descriptions of stakeholder engagement can lead to inaccurate conceptualisations and unreliable data. In the context of wicked problems, these inadequacies may ultimately diminish the effectiveness of interventions intended to address these highly impactful issues (Dembczyk & Zaoral, 2014). Whilst definitions vary according to context and are contested, acceptance of the concept of stakeholder engagement has been validated and entrenched by institutional adoption and inculcation into policy. Thus, generalisations are possible (Talley *et al.*, 2016).

According to Jonas *et al.* (2018), the study of stakeholder engagement has historically assumed the existence of a central stakeholder linking others. This perspective is reflected in definitions such as those provided by Goodman *et al.* (2017: 3): “The interaction with, and/or involvement of, stakeholders in a positive way in the activities of an organisation” and Lehtinen and Aaltonen (2020: 86) “The means, including organisational activities and arrangements, used to involve external stakeholders in the project's operations or decision-making”.



The engagement of stakeholders by organisations is often driven by a competitive motive which prioritises the strategic needs and objectives of the organisation. Such a stakeholder system is designed to capture value for the central organisation. When the motive for stakeholder engagement is to manage organisational risk, their potential positive systemic impact is constrained (Du & Kadyova, 2016). In contrast, an integrated value-creating system can produce distributed benefits, and studies indicate that the trust, innovation and reputational benefits which can be derived from more egalitarian engagement could generate greater competitive advantage (Du & Kadyova, 2016).

Du and Kadyova (2016) and Dembczyk and Zaoral (2014) distinguish between controlled stakeholder management, driven by and focused on the interests of the organisation, as described above, and collaborative stakeholder engagement, which tends to be more egalitarian and ethical (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016; Hanafiah & Widjaja, 2017). Du and Kadyova (2016) propose that a proactive spirit of co-operation should underpin stakeholder engagement.

Fernando, Burden, Ferguson, O'Brien, Judge and Kashima (2018) suggest that models of stakeholder engagement might be enhanced by understanding communities in which people choose to live together in bounded systems, such as communes, to achieve a vision or live according to shared values. Jonas *et al.* (2018) contend for the possibility of a self-regulating stakeholder system which coheres around goal achievement and the viability of the system. Such a system probably includes more than one central role player depending on stakeholder contribution and power dynamics.

This perspective is supported by Hamby, Pierce and Brinberg (2017), who emphasise stakeholder buy-in and commitment to common goals, as well as Bowen, Hyams, Goodman, West, Harris-Wai and Yu (2017), who focus on stakeholder engagement as a process of mutual decision-making. The more collaborative approach encouraged by Hamby *et al.* (2017), Talley *et al.* (2016) and Watson (2015) increases the likelihood of full stakeholder engagement, support, commitment, successful implementation, and shared responsibility (Karim & Udin, 2015; Watson, 2015). Jordan *et al.* (2016) propose that a diverse group of the right people, constructively and collaboratively convened and informed, can foster joint envisioning and strategising, transformation, innovation, and better long-term outcomes.

Optimal stakeholder engagement in social projects is also supported by high levels of commitment, mapping of responsibilities and mechanisms to ensure that loops are closed (Johnston & Taylor, 2018a: 9). Stakeholder group engagement is more dialogical and behavioural than individual engagement, influenced by relationships with the system. However, emotional and cognitive aspects of personal engagement are as relevant in the stakeholder context as they are in the workplace or other engagement contexts (Jonas *et al.*, 2018).

The engagement of stakeholders is characteristically viewed in relation to goal-directed activity within an interactive system. However, the innovative contribution of stakeholders is influenced by unique relational patterns and interactions between them, their experiences, and by psychological factors and their respective access to resources (Jonas *et al.*, 2018).

In the conceptual framework in Chapter 3, the researcher will propose an approach to stakeholder engagement which reflects the more egalitarian and power-distributed opinions of Du and Kadyova (2016) and Dembczyk and Zaoral (2014). Wicked problems, explained in section 2.5, tend not to be owned by one single stakeholder, which challenges centralised control. They generally also require the involvement of many groups and organisations, which must somehow be knit together to achieve impact (de Moor, 2015).

The researcher has introduced stakeholder engagement in this sub-section, highlighting its communal and systemic nature (Johnston & Taylor, 2018a: 9). She has demonstrated that engagements can be centred around one stakeholder or can be based on more egalitarian and mutually value-creating principles (Dembczyk & Zaoral, 2014). In the sub-sections which follow, the researcher will use the linguistic framework identified in sub-section 2.2.1 to frame further theoretical insights into stakeholder engagement.

#### **2.4.1 Stakeholder Engagement as Interaction**

Stakeholder engagements (Rühli, Sachs, Schmitt & Schneider, 2017; Talley *et al.*, 2016; Varenova, 2017) are firstly interactions in which stakeholders participate. This use of 'stakeholder engagement' is best reflected in a definition provided by Goodman *et al.* (2017: 3) "The interaction with, and/or involvement of stakeholders in a positive way in the activities of an organisation".

As de Moor (2015) attests, myriad interconnected communities create society. Social interactions allow stakeholders to contribute resources and abilities and to develop innovative solutions (Rühli *et al.*, 2017). Knowledge, resources, and problem-solving competencies are some of the community commons which create context and flow across boundaries through interactions between stakeholders (de Moor, 2015). In a wicked problem context, successful interactions depend on the ability to understand others, negotiate and communicate. Stakeholder partnerships are impacted by how interactions are framed and how differing perspectives are appreciated (Dentoni, Blitzer & Pascucci, 2016).

When stakeholders enter interactions, they bring expectations with regard to both the process and the outcomes (Rühli *et al.*, 2017). Differences between stakeholders, such as culture, values and goals, tend to make their engagements more challenging (Dentoni *et al.*, 2016). However, trust, friendship and emotional attachment improve coordination and reduce misinterpretations (Jonas *et al.*, 2018). Du and Kadyova (2016) further this argument by defending the value of trust, dialogue and interaction in stakeholder engagement.

Stakeholders are changed through their interactions based on their experiences and competence (Dentoni *et al.*, 2016). Gregory *et al.* (2020) explain that inductive development of stakeholder identity occurs through regular interactions, which facilitate learning, co-development of knowledge, mutual goals, beliefs, values and normative behaviours (Dentoni *et al.*, 2016; Jonas *et al.*, 2018).

There are multiple potential interactions between stakeholders engaged in multi-stakeholder contexts (Gregory *et al.*, 2020), and relationships are developed through networked interactions rather than formal structures. These interactions can foster innovation (Lehtinen & Aaltonen, 2020). However, if role-players withhold information from interactions, then important partners may be excluded from activities in which they could have contributed value. There is thus value in the on-going monitoring of all interactions throughout a project (Lehtinen & Aaltonen, 2020).

Interactions between stakeholders are impacted by factors such as the selection, identity and power differentials within stakeholder groups, levels of initiative and activity, and how all parties are treated (Dembczyk & Zaoral, 2014). Ensuring the interests of parties through appropriate contracting, external support, and compliance monitoring aids effective stakeholder engagement (Asoka, 2016). Democratic principles theoretically ensure that stakeholder power is equalised and that their motives for involvement are overt. However, systems inevitably tend to be biased in favour of an elite, and the logic of engagement processes is likely to be strongly driven by philosophical and motivational factors (Heikkurinen & Mäkinen, 2018: 8-10).

Gregory *et al.* (2020) argue that effective stakeholder engagement involves paying attention to power dynamics and identities and how these impact stakeholder interactions since the relative powers of the role-players have an impact on the nature of interactions. But, when interactions are fair, and stakeholders have equal voices, trust is built, and innovation is fuelled (Rühli *et al.*, 2017).

In contrast with authors like Hanafiah and Widiaia (2017), Dembczyk and Zaoral (2014), and Du and Kadyova (2016), who advocate for egalitarian engagement, Moynihan (2015) argues that centralised authority can drive a common vocabulary, consistent management, and effective communication. Ishio, Gaspar and Lins (2018) add that hierarchical power can support new ways of being through policies and increase decision-making efficiency during social design processes.

In the 21st Century, interactions are commonly mediated through computers. Many organisations are interacting with their stakeholders through machines, sometimes remotely and asynchronously (Hearn, Wilson-Barnao & Collie, 2018: 517). The effectiveness of these engagements depends on content, design and human capacity (Johnston & Taylor, 2018a: 8). The internet and a host of digital platforms are fostering engagement between individuals,

public groups and organisations, with opinion leaders and interpersonal communication playing critical roles (Johnston & Taylor, 2018a: 13).

In this sub-section, the researcher has discussed stakeholder engagement as a system of interaction, focusing on some of the forces which bind and divide stakeholders in their interdependence. The next sub-section focuses on the contributions which stakeholders can make through their investment.

#### **2.4.2 Stakeholder Engagement as Investment**

Stakeholder engagement is, on a secondary level, their investment of resources in their interactions or processes (Dembczyk & Zaoral, 2014; Jonas *et al.*, 2018). This use of 'stakeholder engagement' is best reflected in a definition provided by Hamby *et al.* (2017: 370) "Commitment of interested parties (stakeholders) to a shared, desired outcome, often by their involvement in its formulation".

Du and Kadyova (2016) point out that different stakeholders control critical components of solutions. Collectively they contribute resources, competencies and value to ecosystemic innovation through engagement (Jonas *et al.*, 2018). This also involves financial and time investments and the relinquishing of some controls (Du & Kadyova, 2016). Thus, a breakdown in the stakeholder system can threaten the sustainable generation of social solutions (Du & Kadyova, 2016).

Individual, organisational and inter-organisational engagement of stakeholders differ according to Jonas *et al.* (2018), who argue for the importance of the stakeholder engagement context but do not elaborate on this, except to tentatively suggest that it is possible that behavioural engagement may be more important at the inter-organisational level, and cognitive and emotional engagement more significant at individual and organisational levels.

Whilst they make these invaluable contributions which potentially increase the sustainable health of the system, stakeholders simultaneously represent and motivate for their own interests. Depending on the power which they hold, they may also manipulate the system for their own interests, influencing the availability of, access to, and flow of resources (Jonas *et al.*, 2018). Thus the value and ethics of shareholder activist investment to influence behaviour can be debated (Johnston & Taylor, 2018a: 9).

For a stakeholder system to deliver on its objectives, it must endure, sometimes for many years. Levels of participation and engagement tend to wane over time. Jonas *et al.* (2018) do not provide definitive solutions to this challenge but suggest that system life-cycles would be worth researching further. They tentatively propose that fostering friendships, intentional maintenance mechanisms and tracking of engagement metrics may contribute to system longevity.

The flow of knowledge is a key component of good stakeholder systems, according to Du and Kadyova (2016), who emphasise the importance of insights contributed by beneficiaries and customers. These systems provide access to key information and increase transparency and legitimacy (Desai, 2018; Hamby *et al.*, 2017). Mechanisms which might be employed to support this flow of knowledge include web-based informational repositories of documents or recordings, stakeholder participation in governmental advisory bodies, information dissemination through media, digital surveys, forums and focus groups, webinars or live presentations, listening tours, diverse working groups and blogs (Jordan *et al.*, 2016).

This sub-section has emphasised stakeholder engagement as investment. Literature consulted seemed to place considerably more emphasis on the contribution of stakeholders to problems (Bannink & Trommel, 2019) and the challenges of enabling coherence (Carcasson, 2016; Dentoni *et al.*, 2018; Newman & Head, 2017), discussed in other sections than it did on their contributions of resources to solutions (Jonas *et al.*, 2018). However, the value of shared information was emphasised, and researchers pointed out that the ability to invest meaningfully is generally related to resources and power.

### **2.4.3 Stakeholder Engagement as Leadership**

The engagement of stakeholders by leaders or central stakeholders is the focus of this sub-section (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016; Lehtinen & Aaltonen, 2020). It highlights the intentionality which is required to effectively engage individuals and groups comprising very different stakeholders, perspectives and needs. It also introduces the role that facilitators can play in enabling effective interaction and co-operation with and between stakeholders. This use of 'stakeholder engagement' is reflected in a definition provided by Lehtinen and Aaltonen (2020: 85) "The means, including organisational activities and arrangements, used to involve external stakeholders in the project's operations or decision-making".

Whilst egalitarian processes and shared leadership are an ideal for stakeholder communities (Danken *et al.*, 2016; Gold, Muthuri & Reiner, 2018; Hamby *et al.*, 2017), in practice, individuals and organisations take on leadership and facilitative roles to deliberately engage stakeholders, and there is still adherence to the notion of strong leadership (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016; Shabangu, 2017).

Engaging diverse groups of people is difficult (Jordan *et al.*, 2016). Engagement strategies provide guidelines to enable leaders and organisations to deal with the different power, interests, values, expertise, ideas and issues of stakeholders (Heikkurinen & Mäkinen, 2018: 5; Johnston & Taylor, 2018a: 2; Watson, 2015). Some stakeholder systems are so massive that it is impossible for everyone's interests to be heard or considered. Exclusion is inevitable, and choices must be made on some basis (Heikkurinen & Mäkinen, 2018: 5). De Moor (2015) states that many stakeholder groups have fuzzy boundaries, making the identification of relevant stakeholders and the purpose and process of involving them difficult to clarify.

Waddell (2016) argues that stakeholders may engage with each other authoritatively, competitively, or collaboratively. These different approaches may be reflected in the organisational structures and practices which emerge, depending on project foci and beliefs about shared power, responsibility, and decision-making (Du & Kadyova, 2016; Watson, 2015).

Leaders ought to make intentional decisions about how they plan to do business and proactively engage with stakeholders, striving ideally to develop inspiring communities that deliver value and uphold promises (Du & Kadyova, 2016). Facilitation of collaboration and stakeholder engagement by external practitioners is usually recommended (Watson, 2015), and the variety of people who take on this role means that their perspectives and approaches may yield widely differing outcomes (Talley *et al.*, 2016). Their role may include process design, facilitation of interactions which allow all voices to be heard, assistance with contracting, documentation of plans and the provision of independent and alternative perspectives (Watson, 2015).

Credibility and process leadership are particularly critical ingredients for successful collaborative stakeholder engagement, and facilitators need to clarify and design around the reasons for collaboration, who should be involved, who holds relevant knowledge, whose credibility is most likely to promote cohesion, how collaborative processes will work and how they will be energised and sustained (Jordan *et al.*, 2016).

This form of boundary-spanning leadership is focused on strategic responsiveness and enables awareness of dynamics within both the internal and external systems. Effective boundary spanners recognise external opportunities and threats and see boundaries as places of greatest diversity and essential frontiers for innovative breakthroughs. They are masterful relators, able to create strategic connections, enable flow and facilitate interactions. They transmit influence and represent the perspectives of others (Bazely, 2019).

The degree of strategic selection involved in stakeholder engagement varies, with some leaders choosing to involve participants based on the likelihood of their contribution to achieving specific outcomes. At times stakeholder networks become entrenched and impervious through habit or design (Watson, 2015).

From a theoretical perspective, Du and Kadyova (2016) point out that there is little literature focused on the cost of engaging stakeholders, but that benefits are well established. They emphasise that stakeholder engagement involves financial and time investments and the relinquishing of some controls. Some stakeholders also increase cost and risk and create the potential for reputational damage and other unintended negative consequences. In light of these challenges, Du and Kadyova (2016) proffer the opinion that stakeholder theory should be enhanced with more tangible answers to the problems which emerge in stakeholder systems.

Bowen *et al.* (2017) provide supportive evidence, concluding that both the measurement and evaluation of stakeholder engagement are inconsistent and lack theoretical underpinning and psychometric data. They also defend a suggestion that qualitative and mixed methods assessment might prove most useful and highlight the importance of evaluating openness, trust and ownership based on stakeholder expectations.

This sub-section has explained theoretical perspectives related to the engagement of stakeholders by leaders and facilitators (Watson, 2015). It has highlighted some of the challenges which make this difficult in practice and pointed out some of the ideals which should be achieved by these leaders (Heikkurinen & Mäkinen, 2018: 7; Johnston & Taylor, 2018a: 14; Jordan *et al.*, 2016; Watson, 2015). The sub-section concluded by referencing some of the research gaps which exist regarding the management and monitoring of stakeholder engagement (Bowen *et al.*, 2017).

#### **2.4.4 Stakeholder Engagement as Process**

The fourth framing of stakeholder engagement is the stakeholder engagement process (Azlan, Waris & Tamyez, 2020; Barley-Greenfield, 2017; Shabangu, 2017). This use of 'stakeholder engagement' is best reflected in definitions provided by Bowen *et al.* (2016: 314) "The process of meaningful involvement of those who are engaged in making decisions about programs", and by Viglia, Pera and Bigné (2018: 1) "An interactive experiential process based on actors' engagement with a focal organisation, but more intensively with other stakeholder community members".

Whilst sources such as Bitsch (2016), Dembczyk and Zaoral (2014), and Du and Kadyova (2016) assume the process nature of engagement, none of these authors clearly define a process for stakeholder engagement. Perhaps this is because it is a subject on which stakeholders tend to disagree (Bitsch, 2016), or it may be because stakeholder engagement involves multiple context-specific processes which actually need to be identified and integrated (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016).

Although stakeholders are ideally engaged to create positive value (Du & Kadyova, 2016), Dembczyk and Zaoral (2014) comment that it is unclear what this means in practice. Du and Kadyova (2016) concur, contending that literature fails to provide practical guidelines around who should be engaged and how which leads to a wide variety of practices.

The governance of stakeholder engagement requires structural processes for enabling and fostering deliberation, making decisions and for enforcing agreements. Fundamental rules and procedures can support the stability of the system and limit the impact of stakeholders who seek to manipulate decisions, processes, and outcomes through their strategic participation or withdrawal (Bitsch, 2016; Dembczyk & Zaoral, 2014). Power may well be vested in a host or hosting group who may influence decision-making through their control of participation and process. Whilst the use of external facilitators may mitigate this imbalance, these role-

players are likely to be engaged and mandated by the host (Dembczyk & Zaoral, 2014; Watson, 2015).

Collaborative stakeholder engagement is underpinned by inclusion, accessibility, sustainability and a results focus (Jordan *et al.*, 2016), and Du and Kadyova (2016) promote the creation of platforms for transparent, egalitarian dialogue and exchange. Stakeholders are ideally involved early in a process so that their values and relevant knowledge are effectively and purposively integrated (Talley *et al.*, 2016).

The development of trust is enhanced through process-driven dialogue and interaction, which effectively involves people and makes their needs and wants overt (Bitsch, 2016; Du & Kadyova, 2016). Deliberately crafted action and interaction can develop cohesive relationships and generate meaning (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016), whilst clear roadmaps can also signal to stakeholders when their engagement is most appropriate and allow them to participate selectively (Dembczyk & Zaoral, 2014).

The right series of interactions, appropriately applied in the right context, can enable stakeholders to share, generate and apply knowledge, foster learning, develop ideas and co-innovate (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016). Continued structured interaction can then enable them to integrate ideas and converge to co-construct common realities, purposes, and future visions for value creation (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016).

However, organising and involving multiple diverse people whose participation varies over time (Bitsch, 2016; Dembczyk & Zaoral, 2014) requires mechanisms which help them to find alignment on principles, standards and decision-making criteria and to reach agreement on plans for implementation, adoption and diffusion of solutions (Bitsch, 2016; Du & Kadyova, 2016). The more challenging the problem, the more likely it is that stakeholders need to learn to interact together (Dentoni *et al.*, 2016). They have to somehow integrate their individual perceptions into a shared approach to foster mutual value creation (Rühli *et al.*, 2017).

Fragmentary forces such as complexity, diversity and wickedness almost inevitably disrupt collaborative efforts. Counteractive processes are, therefore, essential to reward involvement through the promotion of inclusion and trust (Kpamma *et al.*, 2017). Du and Kadyova (2016) recommend negotiation and adherence to good faith principles asserting that under these conditions, stakeholder engagements provide learning opportunities, generate innovations, and promote organisational transformation. Stakeholder engagement processes should be subject to continuous improvement and innovation (Bitsch, 2016; Dembczyk & Zaoral, 2014).

In this sub-section, the researcher has sought to distinguish relevant process elements for stakeholder engagement (Bitsch, 2016; Dembczyk & Zaoral, 2014). The value of governance, relational, thinking and organising processes has been stated, and insight has emerged



regarding the need for multiple processes to be integrated to enable effective stakeholder engagement over the long-term (Dembczyk & Zaoral, 2014).

#### **2.4.5 Stakeholder Engagement as Experience**

This use of 'stakeholder engagement' is best reflected in a definition provided by Jonas *et al.* (2018: 402) "Psychological state that occurs by virtue of stakeholder experiences throughout an interactive process within a specific service ecosystem". To mirror section 2.2.6, the researcher would have liked to present research in this section relating to the experience of stakeholder engagement. However, she found a dearth of references to this subject.

A few references mention 'stakeholder experience' in the context of the values, life experience and knowledge that stakeholders bring to interactions (Archana, Karmacharya, Rashmi, Abhinav, Meghnath, Natalia, Rajeev, Prajjwal, Annette, David & Swornim, 2019; Pandi-Perumal, Akhter, Zizi, Jean-Louis, Ramasubramanian, Edward Freeman & Narasimhan, 2015), rather than their subjective perception of the phenomenon of engagement (Digwamaje, 2015; Williams, 2016).

Williams (2016) demonstrates that stakeholders do not always experience equality, inclusion, a sense of being valued and the freedom to articulate their perspectives. He also alludes to the experience of conflict and that a collective group experience may shape culture. Participants report a varying sense of their needs and desires being recognised, of their own influence and of personal alignment with strategy. Stakeholders also describe experiencing social barriers to involvement and a perception that treatment, value, and trust differ in different interactions (Williams, 2016).

This sub-section provided limited insight into existing research regarding stakeholder engagement as an experience, which may impact the effectiveness of outcomes (section 2.4.5). The lack of academic material focused on this subject may demonstrate a gap in current theory. In section 2.4 the researcher focused the literature review on research relating to stakeholder engagement, highlighting the distinct phenomena of stakeholder engagement as interaction (section 2.4.1), investment (section 2.4.2), leadership (section 2.4.3) and process (section 2.4.4). The limited existing research into stakeholder engagement as experience has been highlighted (section 2.4.5).

The theoretical insights in this section will inform the understanding of stakeholder engagement to be presented in the conceptual framework in Chapter 3. Two particular gaps were evident in this section. Whilst researchers specifically discussed and highlighted the importance of the stakeholder engagement process; there was an absence of clarity regarding potential processes or facilitation procedures. The researcher also found it difficult to find literature pertaining to the engagement experience of stakeholders. She has explored these and other topics in greater depth in the conceptual framework in Chapter 3 and in the fieldwork.

## 2.5 Wicked Problems

This section directs attention to insights from the literature regarding wicked problems. After introducing the origins of exploration into wicked problems (Rittel & Webber, 1973) and placing them in a broader systemic context (Irwin *et al.*, 2015), critiques from literature are highlighted and their systemic context addressed.

The tertiary literature question (LRTQ1) explored in this section is:

What current theoretical perspectives frame wicked problems?

Answering this question contributes to answering the first secondary research question.

### 2.5.1 Explaining Wicked Problems

This sub-section will explain the origins of the term 'wicked problems' and distinguish this from 'tame problems' (Daviter, 2017). Emphasis is placed on their significance, lack of linear formulation (Peters, 2017) and the fact that they may be accompanied by ethical dilemmas (Head & Xiang, 2016).

The study of wicked problems originated in the 1960s, in the planning environment (Termeer, Dewulf & Biesbroek, 2019), as a critical response to rational, technical problem-solving approaches (Danken *et al.*, 2016). They have since been explored in numerous other fields of research, with a current revival of academic interest and exploration (Termeer *et al.*, 2019).

In sub-section 1.3.1, the researcher introduced and illustrated the ten characteristics of wicked problems as originally described by Rittel and Webber (1973). For convenience, **Table 1** is duplicated here:

**Table 1 Qualities of Wicked Problems According to Rittel and Webber (1973) (Duplicated)**

The problem cannot be precisely formulated.
There is no definitive solution or endpoint.
Solutions are either better or worse, not right or wrong.
No solution can be tested immediately or ultimately.
All interventions are one-off irreversible experiments.
Solution alternatives cannot be accurately quantified, and a finite list of rules cannot be defined.
The problem is unique.
The problem is symptomatic of another problem.
Any number of plausible reasons may be postulated for the existence of the problem.
Being wrong may have serious repercussions.

Burge and McCall (2015) subsequently suggest that problems are constituted of different elements on continua between tameness and wickedness, and their wickedness can be assessed along seven continua; financial, temporal, scalability, environmental impact, technological, safety-critical, physical and knowledge (Burge & McCall, 2015). Yearworth

(2016) explains that four additional criteria create super-wicked problems – 1) urgency, 2) lack of clear authority, 3) human causation and 4) ignoring the future.

Dentoni *et al.* (2018) defend value conflicts between stakeholders as one of three primary characteristics of wicked problems, and Newman and Head (2017) conclude that the social complexity of these issues is more likely to be problematic than their technical complexity. Bannink and Trommel (2019) consider these issues to be increasingly important in a late modern context when normative perspectives have become more individualised and institutional power is diminishing.

Wicked problems are contrasted with tame or conventional problems, which tend to be familiar (McMillan & Overall, 2015; Newman & Head, 2017; Termeer *et al.*, 2019). These linear, well-structured issues have clear solutions because the information is available, and the domain of the problem is contained and known or knowable (Burman *et al.*, 2017; Kurtz & Snowden, 2003). The effect of intervention is visible and alternative solutions may be tested. Responses tend to be habitual and informed by experience, known scientific principles and established practices (McMillan & Overall, 2016).

In contrast, wicked problems morph over time and as solutions are attempted (Bannink & Trommel, 2019; Dentoni *et al.*, 2018). Even understanding the causes is difficult as they are muddled (Burman *et al.*, 2017). They often present stakeholders with known and unknown unknowns - elements of the problem which are not understood or are hidden (Burman *et al.*, 2017). Positivist-orientated responses to wicked problems based on rules, predictability, empiricism, scientific design, rationality, evidence-based design or modelling do not work (Head & Xiang, 2016).

Each wicked problem is unique, and the responses must therefore be too (Dentoni *et al.*, 2018). A distinguishing feature of wicked problems is the inability of stakeholders to even agree on a definition of the problem or a solution (Burman *et al.*, 2017; McMillan & Overall, 2015). Another is that potential solutions cannot be tested and iterated without impacting the system. So, there is no way of knowing with certainty what long-term effects solutions may have, and these issues thus present ethical dilemmas (Burge & McCall, 2015).

Having established the origins of the study of wicked problems (Rittel & Webber, 1973) and identified some of their key features in this sub-section, the researcher will build on this foundation in the next sub-section by exploring subsequent and current thinking about this phenomenon and explaining some of the critiques highlighted by more recent researchers.

### **2.5.2 Critiquing the Wicked Problem Construct**

Current research is more rigorously investigating the usefulness of the concept of wicked problems and the original distinctions between tame and wicked problems. Social scientists are seeking deeper conceptualisation and insights which will be of practical use, especially from the perspectives of people, practices, and policy. One of the considerations being

mooted is a reframing toward wicked situations (Termeer *et al.*, 2019) or problem ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015).

Whilst he argues that the concept is useful, Peters (2017) asserts that the overuse and indiscriminate use of the word wicked are abusive. Bannink and Trommel (2019) agree, suggesting that if all complex problems are classified as wicked, then responses to them will be compromised by a lack of understanding. Turnbull and Hoppe (2019) believe that the use of the word wicked to describe a problem is sometimes political rhetoric designed to justify a lack of progress or to elicit additional resources.

Craig (2020) argues that complex, adaptive socio-ecological systems are normally wicked. He emphasises the instability and social capriciousness of wickedness, the propensity of a system to evolve or to dramatically flip, and the unlikelihood of solutions persisting. Other extreme perspectives suggest that wicked problems should be more finely categorised or that the concept is flawed and should be abandoned in favour of a spectral problem categorisation (Termeer *et al.*, 2019). Turnbull and Hoppe (2019) are of this latter school and propose that problems should be graded based on their problematicity or degree of structure.

Peters (2017) also argues for a more nuanced typology of problems based on the extent and nature of their wickedness. He describes super-wicked problems, which exhibit the characteristics of wickedness posed by Rittel and Webber (1973), but also lack centralised authority and are associated with time pressures. They also tend to be caused by the same people trying to solve them, and current solutions are unsustainable (Peters, 2017).

Turnbull and Hoppe (2019) reject the classification of problems as wicked, contending that the polarisation of wicked (social) and tame (natural) problems is faulty. They argue that natural problems are not as linear as they are purported to be and that to deem all social problems as equally wicked is erroneous.

The binary classification of problems into tame and wicked is also considered simplistic by Newman and Head (2017), who defend their proposal that problems may all have elements of both tameness and wickedness and should be evaluated on a continuum from tame to wicked, depending on the degree of dynamic complexity, knowledge uncertainty and stakeholder divergence.

Peters (2017) reminds scholars that the original framing of wicked problems was rooted in highlighting potential planning design challenges and scepticism regarding the possibility of political solutions. According to Peters (2017), the Rittel and Webber (1973) study should be viewed as an early attempt to alert policy-makers to the probability of increasingly complex future problems. According to Turnbull and Hoppe (2019), Rittel and Webber's (1973) intention was not to empirically classify problems but rather to urge rationalistic researchers to question their paradigms.

Problems are not inherently problematic. They are iteratively conceived as such by observers and role-players based on their interpretation of the gap between what ought to be and what is. Thus, problems cannot be defined without reference to stakeholder relationships, a quality not referenced by Rittel and Webber (1973) in their qualifying criteria (Turnbull & Hoppe, 2019).

Various researchers (Alford & Head, 2017; Bannink & Trommel, 2019; Danken *et al.*, 2016; Dentoni *et al.*, 2018; Head & Xiang, 2016; McMillan & Overall, 2015) proffer alternative characteristics by which to identify wicked problems, compared in **Error! Reference source**

McMillan and Overall (2015)	Head and Xiang (2016)	Danken <i>et al.</i> , (2016)	Dentoni, <i>et al.</i> (2018)	Bannink and Trommel (2019)
<ul style="list-style-type: none"> <li>•Urgent, simultaneous demands</li> <li>•Multiple variables</li> </ul>	<ul style="list-style-type: none"> <li>•Unclear problem</li> <li>•Unclear solution</li> <li>•Insolvability</li> <li>•Irreversible consequences</li> <li>•Uniqueness</li> </ul>	<ul style="list-style-type: none"> <li>•Unclear problem definition</li> <li>•Irresolvability</li> <li>•Multiple role players</li> </ul>	<ul style="list-style-type: none"> <li>•Knowledge uncertainty</li> <li>•Dynamic complexity</li> <li>•Value conflicts</li> </ul>	<ul style="list-style-type: none"> <li>•Conflicting normative judgements</li> <li>•Factual uncertainty</li> </ul>

**not found..**

### Figure 2 Comparison of Wicked Problem Characteristics

(Bannink & Trommel, 2019; Danken *et al.*, 2016; Dentoni *et al.*, 2018; Head & Xiang, 2016; McMillan & Overall, 2015).

Head and Xiang (2016) emphasise five key features of wicked problems: an unclear problem, an unclear solution, insolvability, irreversible consequences, and uniqueness. They emphasise the cognitive and practical challenges posed by these problems.

Dentoni *et al.* (2018) highlight three key qualities of wicked problems. Firstly, knowledge uncertainty results from a lack of linearity. Decisions must be made despite data gaps, lack of theoretical knowledge and constrained cognitive capacities. The second quality, dynamic complexity, is related to the unpredictable evolution of these problems over time, fuelled by complex cognitive interdependencies, and resulting in a lack of problem resolution (Alford & Head, 2017; Dentoni *et al.*, 2018). Finally, value conflicts result from differences between stakeholders, causing clashes and opposition at various levels of the system (Carcasson, 2016; Dentoni *et al.*, 2018; Newman & Head, 2017).

Newman and Head (2017) defend a view that these three characteristics of wicked problems are not absolute and may be observed on sliding scales which impact the degree of wickedness of a problem. Following a review of more than one hundred articles, Danken *et al.* (2016) conclude that the three most commonly described qualities of wicked problems are the lack of clear problem definition, irresolvability, and the involvement of multiple role-players. Reducing the conceptualisation of wickedness to just two variables, Bannink and Trommel (2019) place these problems at the interactive intersection between conflicting normative

judgements and factual uncertainty or complexity. As Peters (2017) states, systemic complexity tends to be both technical and political.

McMillan and Overall (2015) also highlight just two primary but different characteristics of wickedness; urgent, simultaneous demands and multiple social and attitudinal variables.

In summary, scholars emphasise the dynamic intractability of wicked problems (Dentoni *et al.*, 2018), their porous boundaries (de Moor, 2015), their susceptibility to unintended consequences (Du & Kadyova, 2016), the futility of efforts to solve them with linear models (Turnbull & Hoppe, 2019) and the challenge of socially constructing generally accepted definitions and perceptions (Dentoni *et al.*, 2018).

The researcher has elucidated alternative perspectives and critiques relating to wicked problems in this sub-section. She demonstrated that there are several schools of thought around defining criteria and that current authors seem to be attempting to crystallise the challenges as succinctly as possible, identifying fewer key features (Bannink & Trommel, 2019; Danken *et al.*, 2016; Dentoni *et al.*, 2018; Head & Xiang, 2016; McMillan & Overall, 2015). She outlined arguments in favour of focusing on the wickedness of systems instead of problems (Blignaut & Aronson, 2020) and of grading issues according to their problematicity (Turnbull & Hoppe, 2019).

### **2.5.3 The Context of Wicked Problems**

As established in the introduction to systems thinking in Chapter 1, wicked problems cannot be isolated from their broader systemic context. In this sub-section, the researcher will outline the complex systemic context of wicked problems (Irwin *et al.*, 2015).

Wicked problems are "ill-defined complex systemic problems that emerge from multiple root causes and become interconnected and interdependent over time, coming to resemble complex adaptive systems" (Irwin *et al.*, 2015: 2). Wicked problems are hugely detrimental, fostering instability and damaging the perception of the utopian ideal society (Carayannopoulos & McConnell, 2018). These massive social challenges are entangled in webs of interlinking and causal variables, and their boundary-crossing nature complicates both their diagnosis and prognosis (Reinecke & Ansari, 2016).

Systemic factors may cause or exacerbate wicked problems (Burge & McCall, 2015), since they are inseparable from their context (Dentoni *et al.*, 2018) and may be indistinguishable from related problems (Danken *et al.*, 2016). The specific context in which these issues arise distinguishes different forms of wickedness (Burge & McCall, 2015). Political wickedness is driven by polarisation between stakeholders, which may impact different stages of the resolution process. Social wickedness emerges when different communities have conflicting needs, with the result that solving the problem for one community may cause issues for another (Burge & McCall, 2015).

Temporal wickedness increases urgency and is one of the features of super-wicked problems (Dentoni *et al.*, 2018; Peters, 2017), and when financial resources constrain the resolution of a problem, it becomes financially wicked (Burge & McCall, 2015). Large-scale issues may have negative environmental implications, making them environmentally wicked. Technologically wicked problems require technology that is not yet available, and knowledge wickedness refers to problems in which information or expertise is lacking to develop or support an appropriate response (Burge & McCall, 2015).

Finally, physical wickedness and safety-critical wickedness constrain responses through practical limitations and the potential for loss of life, respectively. Each of these factors could be explored as a precursor to defining a problem as wicked. If the constraint in question can be addressed, the problem may prove to be less wicked (Burge & McCall, 2015).

The most wicked problems, social messes, are complex, interrelated systems and problems resistant to understanding and resolution because of extreme social, economic, and political complexity (McMillan & Overall, 2015; Peters, 2017). Therefore, they tend to become chronic, intractable issues with better or worse responses rather than solutions (Danken *et al.*, 2016; Head & Xiang, 2016; Pitsi, Chandrakumara & Wickramasuriva, 2019; Sediri, Trommether, Frascaria-Lacoste & Fernandez-Manjarrés, 2020).

Since wicked problems are situated within complex systems with uncertain and often remote tempo-spatial consequences, it is almost impossible to establish solution deadlines, especially when political forces are at play (Bannink & Trommel, 2019; de Moor, 2015; Irwin *et al.*, 2015; McMillan & Overall, 2015). In addition, because of the complexity of the associated systems, wicked problems cause surprises (Sediri *et al.*, 2020), and the solutions which are implemented may have worse effects than the original problems (Burman *et al.*, 2017; Termeer *et al.*, 2019).

This sub-section has highlighted the interdependencies between wicked problems, some of their causes (Irwin *et al.*, 2015) and effects (Carayannopoulos & McConnell, 2018) and the challenges that these interdependencies pose to encapsulating these issues within clear boundaries (Reinecke & Ansari, 2016). Different forms of wickedness have been distinguished, illustrating the links between the context and categorisation of these issues (Burge & McCall, 2015).

## **2.6 Conclusion**

The literature review sought to consider seminal and current theoretical perspectives relevant to answering the primary research question (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21):

‘What conceptual framing of stakeholder engagement could improve stakeholder engagement in the context of wicked problems?’

The literature review presented in this chapter answered the first of the secondary research questions (SRQ1).

What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?

In response to this question, the review commenced with a consideration of the framing of engagement to support the exploration of the compound term stakeholder engagement. The researcher defended five framings of the universal engagement construct based on interdisciplinary perspectives: engagement as interaction (Johnston & Taylor, 2018a: 1), as investment (Kahn, 1990), as leadership (Eikelboom, 2016; Harmeling *et al.*, 2017; Lehtinen & Aaltonen, 2020; Luomo-aho, 2015), as process (Bonometti *et al.*, 2020; Jordan *et al.*, 2016; Shuck *et al.*, 2017; Skøien, 2018), and as experience (Deskins, 2017; Naumann *et al.*, 2017; Osborne & Hammoud, 2017; Pradhan & Panda, 2018).

The review targeted stakeholder engagement specifically, explaining the stakeholder construct (Heikkurinen & Mäkinen, 2018: 3) and the stakeholder system (Du & Kadyova, 2016). The researcher introduced stakeholder engagement (Dembczyk & Zaoral, 2014) theoretically and focused on the interaction (de Moor, 2015), investment (Du & Kadyova, 2016), leadership (Dembczyk & Zaoral, 2014), process (Dembczyk & Zaoral, 2014) and experience (Digwamaje, 2015) perspectives of this phenomenon.

In the final section of the review, the researcher turned her attention to the research context of wicked problems, explaining historical (Rittel & Webber, 1973) and current perspectives (Head & Alford, 2015; Head & Xiang, 2016) and highlighting critiques of the concept (Irwin *et al.*, 2015; Termeer *et al.*, 2019).

In the next chapter, the researcher will propose an initial conceptual framework for stakeholder engagement in the context of wicked problems. The framework will root the research perspectives on wicked problems, stakeholders and stakeholder engagement in literature. It will form a foundation on which data collection and data analysis can be conducted, as explained in Chapter 4.



### 3 CONCEPTUAL FRAMEWORK

#### 3.1 Introduction

Chapter 2 answered the first secondary research question. An interpretation was presented of data collected and reviewed from the literature. The review focused on the three key concepts of wicked problems, stakeholders and stakeholder engagement. That presentation was prefaced by a background summary of engagement, which informed the appraisal of stakeholder engagement later in the review. The literature review answered the first secondary research question to partly achieve the first research objective.

The aim of this study is to develop a sense-making framework to improve stakeholder engagement in the context of wicked problems, and a narrative overview of the frame of reference for this study was included in section 1.9. This chapter builds on the literature review and proposes a conceptual framework to achieve the first objective of the study. This inductive exercise is part of the social construction of the research project.

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of the conceptual framework to achieving the aim of the research.

#### Extract from Table 3 Summary of Research Project (Duplicated)

Aim and Objectives	Research Questions	Research Concepts and Activities
<b>RO1</b> Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.	<b>SRQ2</b> How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?	Conceptual framework. Individual interviews.

This chapter focuses on the alternative framing of wicked problems, stakeholders and stakeholder engagement. It has begun to answer the second secondary research question, which can be broken down as indicated in

**Table 5.** The question will be further explored in the individual interviews.

**Table 5 Framing the Conceptual Framework**

<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>		
<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>		
<p><b>Conceptual Framework Tertiary Question 1 (CFTQ1)</b></p> <p>How could wicked problems be alternatively framed?</p>	<p><b>Conceptual Framework Tertiary Question 2 (CFTQ2)</b></p> <p>How could stakeholders be alternatively framed?</p>	<p><b>Conceptual Framework Tertiary Question 3 (CFTQ3)</b></p> <p>How could stakeholder engagement be alternatively framed?</p>

**3.2 An Alternative Frame**

Given the aim of this study, an alternative framing of wicked problems, stakeholders and stakeholder engagement should create the potential for improved stakeholder engagement. The conceptual framework which provides an initial answer to these questions is delineated in the remaining sections of this chapter. The narrative argument is accompanied by a tabular summary, constructed systematically, including the propositions as they are presented.

**3.3 Alternative Framing for Wicked Problems**

The tertiary literature question (CFTQ1) explored in this section is:

How could wicked problems be alternatively framed?

Answering this question contributes to answering the second secondary research question.

The researcher proposes that an alternative framing of wicked problems to enable improved stakeholder engagement should address the systemic context in which wicked problems are created and sustained, and the demands that wicked problems place on stakeholders.

**3.3.1 Wicked Problems in Problem Ecologies**

The conceptual framework proposes that wicked problems are contained in problem ecologies. They are systemically connected to the problem ecologies in which they arise and are characterised by complexity, change and conflict, which foster the development and maintenance of wicked problems. Stakeholders engage with wicked problems and the systems in which they exist. This proposition is supported by perspectives from the literature.

The term ‘problem ecology’ extends the boundaries of a wicked problem to include its broader systemic context (Fenn & Hobbs, 2015; Irwin *et al.*, 2015). The problem ecology is a living system and, by implication, is animate, autopoietic and dynamic (Mills, 2021; Orgill *et al.*,

2019). Within the macro system are multiple levels of system, and each level reflects fractal characteristics (Fisher & Coleman, 2019: 341).

Wicked problems occur in the complex context of entangled socio-material, as explained in sub-section 1.5.2.1 (Clarke & Ashhurst, 2018: 153; Fenn & Hobbs, 2015). These problem ecologies include people and non-human stakeholders (Baeder, 2018; Heikkurinen & Mäkinen, 2018: 5; Pierroux, 2018: 132), such as nature and technology, actively or passively connected and involved in the evolution of the systems in which they are entangled, and the intractable problems which emerge within and among them (Dembczyk & Zaoral, 2014; Keenan, 2020; Heikkurinen & Mäkinen, 2018: 5).

Complexity (Alford & Head, 2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), change (Blignaut & Aronson, 2020; McMillan & Overall, 2015) and conflict (Bannink & Trommel, 2019; Carcasson & Sprain, 2016) can be related to the observable qualities of wicked problems identified by various authors. **Table 34 to Table 36** in Appendix 8.2 illustrates these relationships and has been included for interest.

### *3.3.1.1 Problem Ecologies are Complex*

The conceptual framework proposes that problem ecologies are systemically complex. They are huge living systems of interdependent entities, each impacting on and impacted by the entities to which they are connected. The local impact of a problem ecology cannot be isolated from the influences of the broader system. It is impossible to circumscribe, describe or fully understand the problem ecology. This proposition is supported by perspectives from the literature.

The understanding of complexity in this study is rooted in the dynamics of systems, the ultimate interconnectedness of natural phenomena, as well as the patterns, organic forms and impact of these relationships on the essential identity of inter-related stakeholders and of the system as a whole (Capra & Luisi, 2014: 4; Eoyang & Mennin, 2019). The Cynefin Framework introduced in sub-section 1.5.2.1 further informs this understanding of complexity (Snowden & Boone, 2007; Snowden *et al.*, 2020: 2).

The large number of stakeholders typically involved in wicked problems increases their complexity since every additional stakeholder multiplies the number of potential interactions within the system (Cloete, 2017). Pattern recognition, understanding, decision-making and problem-solving become much more difficult as complexity increases, especially when the nature of interactions is not obvious or understood (McMillan & Overall, 2015; Snowden *et al.*, 2020: 201). Choices can become more strongly contested in the absence of clear authority, adequate information or consistent decision-making principles (Bannink & Trommel, 2019; Head & Xiang, 2016; Peters, 2017; Shalbfafan & Ballestrin, 2019).

Tight coupling of elements of the system can also result in rapid transmission of effect through the system with potential exponential and far-flung impact (McMillan & Overall, 2015;

Snowden *et al.*, 2020: 201). The interconnectedness of elements within a complex problem extends and opens its boundaries, increases its scale and creates the potential for significant changes and consequences at multiple levels of the system (Braithwaite *et al.*, 2018; Burge & McCall, 2015; Keenan, 2020; Peters, 2017; Snowden & Boone, 2007; Snowden *et al.*, 2020: 84). Thus, the complexity of a wicked problem is linked inextricably to the rate and scale of change.

### 3.3.1.2 *Problem Ecologies are Changing*

The conceptual framework proposes that problem ecologies are constantly changing. The problem ecology is dynamic because entities within these interconnected systems are dynamic. Change in one part of the system ripples through the system. Autopoietic elements within the system choose how to respond to these changes and, through their agency, foster further change in the system. It is impossible to pin the system down to a stable state. This proposition is supported by perspectives from the literature.

Problem ecologies are demanding because they are characterised by constantly shifting patterns at multiple levels within the system (Waddock, Meszoely, Waddell & Dentoni, 2015). They are living systems, as introduced in sub-section 1.5.2.1, described as turbulent, emergent, dynamic, co-evolutionary and unpredictable (Blignaut & Aronson, 2020; McMillan & Overall, 2015), and these qualities can be observed in every level of these systems.

Wicked problems have been likened to complex adaptive systems (Braithwaite *et al.*, 2018; Eoyang & Mennin, 2019; Nair & Reed-Tsochas, 2019; Waddell, 2016), which are self-organising, innovative, dynamic, and bordering on chaos. However, the individuals, groups, organisations, norms, rules, interests, relationships and issues within them are similarly adaptive and influence systemic changes (Irwin *et al.*, 2015; Waddell, 2016; Waddock *et al.*, 2015).

Constant instability, unpredictability and capriciousness (Craig, 2020; Dentoni *et al.*, 2018; Peters, 2017) make it impossible for wicked problem systems to be fully known or understood (Burge & McCall, 2015; Keenan, 2020), as they ebb and flow between imperceptible or minor increments, reformational changes and dramatic, transformational shifts (Head & Xiang, 2016; Waddock *et al.*, 2015).

Because of networked interaction, these changes are often unpredictable. Linear patterns of cause and effect are often disrupted or distributed over time and space, making influences difficult to identify. Interactive patterns, features, rules and behaviours emerge and dissipate, constantly altering the morphology of the system as feedback loops dampen or enhance the shifts (Braithwaite *et al.*, 2018; Nair & Reed-Tsochas, 2019).

### 3.3.1.3 Problem Ecologies are Conflictual

The conceptual framework proposes that problem ecologies are fraught with conflict. Gaps, differences, contradictions, polarities and obstacles are found throughout the system because the entities within the system differ. Conflict in the problem ecology is neutral, but it may be perceived positively or negatively and have positive or negative effects. It is impossible to remove differences from the system. This proposition is supported by perspectives from the literature.

Conflict is inherent to life and organisations, vests in interaction and has been a necessary part of history for generations (Vallacher, Coleman, Nowak, Bui-Wrzosinska, Liebovitch, Kugler & Bartoli, 2013: 1). Where there are people, there are oscillating, dynamic differences and conflicts which threaten the situation (Lumumba-Kasongo, 2017; Tourish, 2014; Vallacher *et al.*, 2013: 1). Differences tend to polarise people, especially when they provoke important or symbolic, values-based paradoxes or result in unmet needs (Beitzel, 2019). Conflict may beget anxiety, frustration and stress and compromise trust, cohesion and safety (Clarke & Ashhurst, 2018: 155; Coleman, 2003; Vallacher *et al.*, 2013: 2; Wakayama & LaPierre, 2017).

The concept of conflict in this study is informed by the philosophical notion of the lacuna (Danilchenko, 2018), a word used to describe disagreements, failures, emptiness, contradiction or misunderstanding. A conflict is a gap or incompatibility which might manifest in the context of intentions, desires, goals, beliefs, actions or opinions. It may also be an obstruction – something that gets in the way of goal achievement (Bannink & Trommel, 2019; Carcasson & Sprain, 2016; Coleman, 2003; Danilchenko, 2018; Oxford Dictionaries, 2017; Turnbull & Hoppe, 2019; Vallacher *et al.*, 2013).

Conflict itself is neutral, though it may be perceived as obstructive or constricting (Vallacher *et al.*, 2013: 2-3). It is how people filter, interpret, process, and appraise conflict through existing cognitive frames and how it impacts perceptions and actions which determines whether outcomes are positive or negative and whether enduring conflicts emerge (Lu, 2014; Vallacher *et al.*, 2013: 2-3; Wakayama & LaPierre, 2017). A more positive view of conflict is presented by Wakayama and LaPierre (2017), who supported increased conflict in certain contexts. They argued that whilst it creates constraint, if it is facilitated well, it can lead to innovation and to finding solutions which satisfy opposing parties.

**Table 6** Error! Reference source not found. presents the first iteration of the conceptual framework, summarising the narrative description to this point.

**Table 6 The Emerging Conceptual Framework A**

Alternative Framing for Wicked Problems		
<p><b>Wicked problems are contained in problem ecologies</b></p> <p>Wicked problems are systemically connected to the problem ecologies in which they arise.                      Problem ecologies are characterised by complexity, change and conflict.</p>		
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.

**3.3.2 The Demands of Wicked Problems**

The conceptual framework proposes that wicked problems present stakeholders with demands. The demands presented by wicked problems may impact stakeholder engagement. When stakeholders engage in the context of wicked problems, they are confronted by challenges which are reflective of the problem ecology from which the wicked problems emerge. This proposition is supported by perspectives from the literature.

Although multiple criteria are presented by different authors to characterise wicked problems, as outlined in section 2.5 (Dentoni *et al.*, 2018; Head & Xiang, 2016; Newman & Head, 2017; Rittel & Webber, 1973), this study focuses on the qualities of these issues which affect or demand stakeholder engagement or make it challenging. Burge and McCall (2015) differentiate some of the problematic impacts of wicked problems, highlighting the massive financial costs that may accrue to the environment or to people, as well as the threats to lives and safety. They emphasise the potential to cause or exacerbate stakeholder polarisation and conflict through intervention and the possibility of causing harm to one group of stakeholders while meeting the needs of others.

Negatively-valenced challenges or hindrances can be distressing, demanding or threatening, and have the potential to compromise well-being or personal intention (Babatunde, 2013; Hargrove, Becker & Hargrove, 2015; Schaufeli, 2013: 17; Schaufeli & Salanova, 2014: 294, 307; Seligman & Csikszentmihalyi, 2000; van Beek, Hu, Schaufeli, Taris & Schreurs, 2012). Examples include conflictual relationships, competing commitments and unmet expectations (Chipchase *et al.*, 2017; Kizilcec, Piech & Schneider, 2013).

However, challenges are not always undesirable. Positive challenges tend to be rewarding, have the potential to support well-being or personal intention and result in eustress and flow. Some authors would argue that it is not the challenge itself which is positive or negative but rather the individual's perception or interpretation of the challenge (Babatunde, 2013; Csikszentmihalyi, 1990: 8; Hargrove *et al.*, 2015; Seligman & Csikszentmihalyi, 2000).

At the very least, the challenges that wicked problems present require effort to be expended by stakeholders, and these challenges may disrupt, obstruct or call into question stakeholder abilities or habitual ways of engaging (Bakker & Demerouti, 2016; Crick & Bodie, 2016; Harmeling *et al.*, 2017; Kahu, 2013). One view of engagement contends that it is a function of contextual demands and the resources within and available to those who are expected to engage (Bakker & Demerouti, 2016). By implication, the demands presented by wicked problems have a direct bearing on the potential engagement of stakeholders.

The demand perspective of wicked problems is an evident gap in the literature. Whilst problem ecologies and wicked problems are extensively described, as documented in the literature review, descriptions of their impact on stakeholders and stakeholder engagement are limited. This gap can be explored in the fieldwork.

**Table 7** Error! Reference source not found. presents the second iteration of the conceptual framework, summarising the narrative description to this point.

**Table 7 The Emerging Conceptual Framework B**

<b>Alternative Framing for Wicked Problems</b>		
<b>Wicked problems are contained in problem ecologies</b>		
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.		
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.
<b>Demands of wicked problems</b>		
Wicked problems present stakeholders with demands which may impact their engagement.		

The researcher will proceed to elucidate a framework for making sense of stakeholders and their resources on the basis that engagement can be considered to be a function of contextual demands and the resources within and available to stakeholders.

### 3.4 Alternative Framing for Stakeholders

The tertiary literature question (CFTQ2) explored in this section is:

How could stakeholders be alternatively framed?

Answering this question contributes to answering the second secondary research question.

The researcher proposes that an alternative framing of stakeholders to enable improved stakeholder engagement should address the five-fold nature of people and their agency. Whilst stakeholders may be human or non-human, as established in section 2.3, this conceptual framework will focus on human stakeholders since all stakeholders tend to be represented by people.

### **3.4.1 Stakeholders are Whole, Five-fold Beings**

The conceptual framework proposes that stakeholders are whole, five-fold beings. They are social, physical, intellectual, spiritual and emotional (SPISE), and all five aspects impact how they engage as stakeholders. Each aspect is a form of human energy with related concepts and attributes. Related needs might motivate engagement, and depletion of these energies might result in a lack of engagement. This proposition is supported by perspectives from the literature.

This research recommends a view of stakeholders, which highlights their personal resources (Du & Kadyova, 2016; Heikkurinen & Mäkinen, 2018: 3; Kennedy *et al.*, 2017; Moynihan, 2015). People are considered to be whole but also complex, multi-dimensional (Dudgeon, Bray, D'Costa & Walker, 2017; Gómez-Suárez, Martínez-Ruiz & Martínez-Carabello, 2017A; Rashidin, Javed & Liu, 2019; Tjersland & Ditzel Facci, 2019), five-fold beings: social, physical, intellectual, spiritual, and emotional (SPISE) (Beauchemin *et al.*, 2019; Chipchase *et al.*, 2017; Musser, Caskey, Samek, Kim, Greene, Carpenter & Casbon, 2013).

Physical or practical attributes of stakeholders include qualities such as their genetics (Blignaut & Aronson, 2020; Sullivan, 2018), physical health (Addoum, Korniotis & Kumar, 2017; Oosthuizen, 2017), weight (Addoum *et al.*, 2017), age (Addoum *et al.*, 2017), behaviour (Chipchase *et al.*, 2017), and physical activity (Oosthuizen, 2017). They can invest their physical energy in contributing resources such as their physical skills (van den Wijngaard, 2019), muscular strength (Oosthuizen, 2017), dexterity (Oosthuizen, 2017) and vigour (Bakker & Demerouti, 2016; Schaufeli, 2013: 6).

Physical or practical needs include basic needs such as food (Gregory *et al.*, 2020; Oosthuizen, 2017), water (Turkdogan, 2017: 8), shelter (Gregory *et al.*, 2020; Turkdogan, 2017: 7), healthy diet (Oosthuizen, 2017) and clean air (Issa, 2018). When physical resources are depleted, stakeholders might experience symptoms such as muscle tension and pain (Maillet, 2018; Maslach & Leiter, 2016), weight and appetite changes (Irena, Zdeněk & Jana, 2016; Maillet, 2018), nausea (Maillet, 2018; Schaufeli & Salanova, 2014: 306), sleep disturbances (Irena *et al.*, 2016; Maslach & Leiter, 2016), cardiovascular disease (Irena *et al.*, 2016; Maillet, 2018; Schaufeli & Salanova, 2014: 306), or gastrointestinal disease (Maillet, 2018; Maslach & Leiter, 2016).

Social attributes of stakeholders include qualities such as their social skills (Jordania, 2020: 247; Oosthuizen, 2017), occupations (Schaufeli & Salanova, 2014: 296), demography (Barley-Greenfield, 2017), power dynamics (Konttinen & Sjunnesson, 2020), social status (Bailey *et al.*, 2018), and justice (Jones & Harrison, 2019: 14). They can invest their social energy in contributing resources such as their relationships, connections and interactions (Vivek *et al.*, 2012), organisational commitment (Schaufeli, 2013: 1), financial resources (Dembczyk & Zaoral, 2014) and life and work skills (Kossek & Perrigino, 2016).



Social needs include the need for goal achievement (Aygün & Sezgin, 2021), belonging (Akingbola & van den Berg, 2019), finances (Schaufeli, 2013: 12), inclusion (Bergqvist, 2019), equality (Müller & Kerényi, 2019), and social capital (Wulandhari, Gölgeci, Mishra, Sivarajah & Gupta, 2022). The depletion of social resources may result in stakeholder behaviours such as withdrawal, lack of care for others, callousness or indifference (Maillet, 2018).

The emotional attributes of stakeholders include affective and psychological attributes related to affect and feelings, emotions and emotional intelligence (Andrade, 2015). They can invest their emotional energy in contributing resources such as affective commitment (Akingbola & van den Berg, 2019), empathy, optimism and confidence (Andrade, 2015).

Emotional needs include the need for love, self-esteem (Slote, 2015), fun, hope and pleasure (Ward, n.d.). When stakeholders are emotionally depleted, they may experience feelings such as fear, pessimism, indifference or frustration (Cordeiro & Carvalho, 2019).

Intellectual attributes of stakeholders include constructs such as perspectives, cognition, intelligence, memory, learning and curiosity (Astleitner, 2018). They can invest their intellectual energy in contributing resources such as their understanding, awareness, creativity and problem-solving (Astleitner, 2018).

Intellectual needs include the need for autonomy, variety, feedback and development (Astleitner, 2018). When stakeholders are intellectually depleted, they may struggle to concentrate, be cynical forgetful or inattentive (Schaufeli & Salanova, 2014: 293, 297).

Spiritual attributes of stakeholders include constructs such as core beliefs, values, motivation and morality (Astleitner, 2018). They can invest their spiritual energy in contributing resources such as their belief or faith, courage (Ward, 2018), responsibility (Amundsen & Martinsen, 2015) and qualities such as dedication (Schaufeli, 2013: 6) and humility (Gandolfi & Stone, 2016).

Spiritual needs include the need to achieve personal desires (Konyukhov, 2020), experience meaning (Amundsen & Martinsen, 2015), or participate (Sheikh, Inam, Rubab, Najam, Rana & Awan, 2019). Spiritual depletion may cause stakeholders to question meaning and purpose and experience dissonance (Maillet, 2018).

All of these aspects of personhood are related to personal resources (Bakker, 2015; Bakker & Demerouti, 2016; Dembczyk & Zaoral, 2014; Kahn, 1990; Schaufeli, 2013: 8), individual and collective well-being (Bakker & Demerouti, 2016; Barley-Greenfield, 2017; Dembczyk & Zaoral, 2014), intelligence (Bakker, 2015), resilience (Bakker, 2015; Schaufeli, 2013: 6), energy (Bakker, 2015; Bakker & Demerouti, 2016; Kahn, 1990; Schaufeli, 2013: 1) and skills (Bakker, 2015; Bakker & Demerouti, 2016; Dembczyk & Zaoral, 2014; Schaufeli, 2013: 3), which may all be employed or invested (Bakker, 2015; Dembczyk & Zaoral, 2014; Kahn, 1990; Schaufeli, 2013: 6) in interactions (Bakker & Demerouti, 2016; Kahn, 1990) and contextual demands

(Bakker, 2015; Bakker & Demerouti, 2016; Dembczyk & Zaoral, 2014; Kahn, 1990; Schaufeli, 2013: 15).

**Table 37** in Appendix 0 provides a more detailed summary of all the attributes the researcher uncovered in the course of exploring the qualities of each aspect of personhood. It has been included for interest.

**Table 8** Error! Reference source not found. presents the third iteration of the conceptual framework, summarising the narrative description to this point.

**Table 8 The Emerging Conceptual Framework C**

Alternative Framing for Wicked Problems		
<b>Wicked problems are contained in problem ecologies</b>		
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.		
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.
Demands of wicked problems		
Wicked problems present stakeholders with demands which may impact their engagement.		
Alternative Framing for Stakeholders		
<b>Stakeholders are whole, five-fold beings</b>		
Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.		

### **3.4.2 Stakeholders are Key Agents**

The conceptual framework proposes that stakeholders are key agents in the problem ecology, operating in time and space. They have a stake in the wicked problem or represent another entity with a stake and have reciprocal influence with the system through interactions. People have agency and act intentionally, and each stakeholder brings something different to the wicked problem stakeholder engagement context. Their engagement is impacted by their choice, intention, needs and personal changes. This proposition is supported by perspectives from the literature.

The focus of this study is on the engagement of human stakeholders related to or involved in extremely demanding issues resting within complex systems (Dembczyk & Zaoral, 2014; Gregory *et al.*, 2020; Heikkurinen & Mäkinen, 2018: 3; Keenan, 2020). Stakeholders may be individuals representing their own interests or groups of people organised around, identifying with and representing mutual interests (Heikkurinen & Mäkinen: 5, 2018; Keenan, 2020). The individual or collective identities, roles, experiences, and disciplinary knowledge of stakeholders vary within a problem ecosystem comprised of multiple social, political, and

practical dynamics (Barley-Greenfield, 2017; Eoyang & Mennin, 2019; Suoheimo, 2020; Waddock *et al.*, 2015).

Within complex (Alford & Head, 2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), changing (Blignaut & Aronson, 2020; McMillan & Overall, 2015) and conflictual (Bannink & Trommel, 2019; Carcasson & Sprain, 2016) problem ecologies, people are constantly involved in interactions which connect them to each other and to the world, always engaged and engaging dynamically, concurrently or alternately, at the micro, meso or macro-level (Johnston & Taylor, 2018a: 1).

Human stakeholders play a role in the cause and maintenance of these challenges (Du & Kadyova, 2016; Kennedy *et al.*, 2017; Moynihan, 2015), most notably because of the ways in which their perspectives, values, needs and contributions differ (Carcasson, 2016; Dentoni *et al.*, 2018; Newman & Head, 2017).

#### 3.4.2.1 *Stakeholders have Intentions*

The conceptual framework proposes that stakeholders have intentions and act with agency and intentionality. Their intentions create meaning and influence what they need, what they expect and how they behave. Multiple stakeholder intentions jostle for primacy, resulting in shifting priorities and choices. The agency and engagement of stakeholders in problem ecologies are informed by their intentions. This proposition is supported by perspectives from the literature.

Human stakeholders have agency and can exercise personal and social control or influence. They have power and can act intentionally. Agency gives stakeholders the ability to develop or change social structures. It allows them to engage in discourse. Their discourse with their environment has a reciprocal impact on how their agency develops (Varpio, Aschenbrener & Bates, 2017).

Stakeholders are goal-directed, which means that there is reasoning behind their behaviour (Biranvand, Seif & Khasseh, 2015). Stakeholder goals, objectives and intentions create meaning, influencing their needs, expectations, and behaviour (Chipchase *et al.*, 2017; Kahn, 1990; Kahu, 2013; McConnell, 2018; Waddock *et al.*, 2015). Not only do they have intentions, but they act with intentionality (Sofhauser, 2016), related to concepts such as purpose, directing attention, will, inclinations, aims, choices, plans, desires, motives (Sofhauser, 2016), expectations, wants, preferences, ends (Jarrett, 2014: 17, 24) and decisions (Fan, 2014).

Whilst intentions frame purpose or a chosen ideal world and motivate engagement choices (Kahn, 1990; Klingler & Gray, 2015; Mack, 2018), multiple intentions constantly jostle for primacy, shifting priorities and interaction choices (Attfield *et al.*, 2011; Hurd, 2014). This internal conflict between competing and complementary personal goals may decrease goal clarity (McConnell, 2018; Musser *et al.*, 2013), sometimes making intentions difficult to discern, depending on whether they are conscious or unconscious, overt or covert (Mack,

2018; McConnell, 2018). The agency of stakeholders in problem ecologies is thus informed by personal conflict.

Frankl (1985: x) illustrated the capacity of individuals to reframe intention, pointing out how inmates' familiar goals were decimated in the concentration camps of the second world war, replaced by the basest survival intentions, driven by fundamental needs. These intentions often led prisoners to interact in ways which would have been foreign to them in their lives prior to this.

#### *3.4.2.2 Stakeholders make Choices*

The conceptual framework proposes that stakeholders make choices to achieve their goals and meet their needs. Their choices may be conscious or unconscious and are motivated by the potential for reward and threat in their options. Stakeholders make these choices and behave purposefully based on who they are when the choice needs to be made. The choosing nature of stakeholders reflects their capacity for change. This proposition is supported by perspectives from the literature.

The concept of stakeholder choice in this study is informed by Choice Theory (Klingler & Gray, 2015; Turkdogan, 2017: 3). Choice Theory explains that life consists of behaviour chosen to meet basic human needs. The theory proposes that people filter their perceptions and experience of the real world through their knowledge and values, enabling them to make decisions. Their actions depend on how their perceptions stack up against their needs and the quality or ideal world that they have chosen (Klingler & Gray, 2015; Turkdogan, 2017: 3).

Glasser (1999), cited in Klingler and Gray (2015) and Turkdogan (2017:3), holds that people are not victims of external forces but choose their responses to every experience, albeit sometimes within extreme limits (Klingler & Gray, 2015). This principle is illustrated by Frankl (1985: x), who describes life for prisoners in Nazi concentration camps:

“He who has a why to live, can bear with almost any how. In the concentration camp, every circumstance conspires to make the prisoner lose his hold. All the familiar goals in life are snatched away. What alone remains is the last of human freedoms, the ability to choose one's attitude, in a given set of circumstances, to choose one's own way – and there were always choices to make. Every day, every hour offered the opportunity to make a decision”.

People intentionally design behaviour for a purpose – to achieve a desired impact which is experienced through perception. Glasser (1999), cited in Klingler and Gray (2015) and Turkdogan (2017:10), includes cognition, emotion and physiology in his definition of behaviour and thus proposes that people choose what to think, believe and even feel, as well as what they did. As agentic beings, individuals can influence what they experience. “Happiness does not depend on outside events, but rather on how we interpret them” (Csikszentmihalyi, 1990: 1).

The agency of stakeholders in problem ecologies is informed by their choices, and agency enables stakeholders to choose their behaviour to meet their needs and achieve their goals. The neuroplastic, constantly evolving human brain is the master controller which integrates every system of a person's life, mediating behaviour, experiences and choices to engage in activities perceived as rewarding and avoiding those perceived to be threatening (Juhro & Aulia, 2018; Klingler & Gray, 2015; Kringelbach & Berridge, 2016; Lidén, 2019). Thus, behaviours and interactions may be chosen because they are inherently or intrinsically engaging and rewarding or because tangible, external rewards make the behaviour extrinsically motivating (Klingler & Gray, 2015; Lidén, 2019; Sullivan, 2018).

Stakeholder engagement involves making tempero-spatial choices such as what to do practically (Attfield *et al.*, 2011), which relationships to pursue, what work to do, how to feel and to express those feelings, how to make choices, how to behave (Klingler & Gray, 2015), and what ideas to pursue (Berland *et al.*, 2016). These choices have consequences, so options in the present reflect previous choices and impact the availability, choice and nature of future engagements (Kahu, 2013; Ilies *et al.*, 2015; Waddock *et al.*, 2015). To limit and control the choices that they need to make, individuals make symbolic interpretations, imagine future scenarios, observe others, monitor their internal responses and engage in reflective thought (Zigarmi, Nimon, Houson, Witt & Diehl, 2009).

Although people cannot avoid choosing, they can choose consciously or unconsciously (De Castella, Byrne & Covington, 2013; Hurd, 2014; Kahn, 1990), depending on conscious or unconscious goals and/ or needs (Klingler & Gray, 2015; Sullivan, 2018) and possibly informed by information previously assimilated but not consciously recalled (Epstein, 2010). As such, the choices people make may not always make logical sense to others or even to themselves. Internal conflict makes choices difficult (Musser *et al.*, 2013). When the consequences of a choice seem equally rewarding or threatening, choosing becomes challenging and personally taxing, diminishing the capacity for meaningful engagement (Bakker & Demerouti, 2016; Chipchase *et al.*, 2017; Kizilcec *et al.*, 2013).

The response of an individual to a demand or challenge begins with their perception and assessment of it and the degree to which they perceive it to be a threat or a reward (Sullivan, 2018). If the demand or challenge is perceived to be a threat, the individual will move to manage, diminish, or avoid it (Hurd, 2014; Sullivan, 2018). If the demand or challenge may be rewarding in some way, then personal resources such as self-esteem and confidence may be enhanced as stakeholders engage, leading to a more positive resource: demand ratio (Babatunde, 2013; Bakker & Demerouti, 2016; Sullivan, 2018).

Living effectively and engaging in the context of problem ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) involves choosing how to allocate personal and contextual resources in the context of time (Bakker, 2015; Bakker & Demerouti, 2016; Brodie, Fehrer, Jaakkola & Conduit, 2019; Kahu, 2013; Keller - Dupree, Shuler, Rowe, O'Lansen, Kline, Hill & Luznicky, 2018; Pérez-Fuentes, Molero Jurado, Gázquez Linares & Oropesa Ruiz, 2018; Schaufeli & Salanova, 2014:

303, 313; Stein, Newell, Wagner & Galliers, 2015; Trowler, 2016). A stakeholder’s engagement choices thus involve consideration of personal resources, needs, threats and potential rewards.

### 3.4.2.3 Stakeholders have Needs

The conceptual framework proposes that stakeholders have needs related to all five aspects of their personhood. All people have needs which must be met to avoid harm, to meet challenges with resilience, to participate or engage and to reason autonomously. These needs are strong drivers of intention and choice. They may be overt and obvious or covert and hidden, and they impact how stakeholders exercise their agency. This proposition is supported by perspectives from the literature.

The meeting of basic human needs and self-protection prove to be very strong intentional drivers for engagement (Chen, 2018; Green *et al.*, 2017). They act as drivers and motivators for the choices that people make, usually resulting in decisions targeted to their personal benefit (Green *et al.*, 2017; Hollebeek *et al.*, 2016a; Hollebeek *et al.*, 2016b; Kahn, 1990). However, people sometimes behave in seemingly strange and personally detrimental ways to satisfy their deepest needs without even realising it themselves (Green *et al.*, 2017; Hollebeek *et al.*, 2016a; Hollebeek *et al.*, 2016b; Kahn, 1990).

The concept of stakeholder needs in this study is informed by the work of Maslow (1987), cited in Turkdogan (2017: 5), Rock (1987), cited in Sullivan (2018) and Glasser (1999), cited in Klingler and Gray (2015), whom each identify needs which tend to powerfully drive behaviours. The needs which they identify as primary drivers are compared in **Table 9**. Within these broad need categories, driving forces are unique to individuals, and stakeholders each have very personal goals (Bajpai, Prasad & Pandey, 2013; Seligman & Csikszentmihalyi, 2000; Vivek *et al.*, 2012).

**Table 9 Comparison of Basic Human Needs**

<b>Maslow (1987)</b> (Turkdogan, 2017: 5).	<b>Rock (1987)</b> (Sullivan, 2018).	<b>Glasser (1999)</b> (Klingler & Gray, 2015).
Physiological needs	Fairness	Survival
Safety & security	Certainty	Freedom
Love and belonging	Relatedness	Belonging
Self-esteem	Status	Power
Self-actualisation	Autonomy	Fun

When needs are met, stakeholders are more resilient. Positive relationships, creativity, well-being, support, sleep, and mental health all seem to contribute to individual resilience (Kossek & Perrigino, 2016; Seligman & Csikszentmihalyi, 2000). Resilient stakeholders take the initiative and regulate themselves to influence the demands that they need to meet and

ensure that they do not become depleted. They exercise control and act in accordance with positive beliefs and expectations (Bakker, 2015; Bakker & Demerouti, 2016).

Where the actual, relative, or perceived demands that stakeholders face exceed their resources, stress can result, disturbing the homeostasis of the body and potentially producing adverse mental or physical health conditions (Babatunde, 2013; Bakker, 2015; Bakker & Demerouti, 2016). The demand: resource ratio is further compromised as resources are not just relatively but actually depleted in the presence of excessive demand, potentially resulting in a loss spiral, leading to burnout. Any form of actual, relative, or perceived depletion reduces the capacity of the individual to engage (Babatunde, 2013; Bakker, 2015; Bakker & Demerouti, 2016).

#### 3.4.2.4 Stakeholders Change

The conceptual framework proposes that stakeholders constantly change through assimilating their experiences and interactions. The attributes, energies, resources and needs of stakeholders are in constant flux in response to their environment. These changes impact how stakeholders engage. This proposition is supported by perspectives from the literature.

It is simplistic to consider interactions as occurring between two static stakeholders. Interactions are a product of who the role players are, how they perceive and experience the interaction and the choices they make in that moment of time (Head & Xiang, 2016; Peters, 2017; Reams, 2016; Tange, 2020). Stakeholders have finite capacities, differ from one another (Burge & McCall, 2015) and are, by dint of their constant evolution, virtual or illusory constructions (Issa, 2018). Within problem ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015), people, as individuals or collectives (Tange, 2020), are constantly evolving, gaining and expending resources and changing their perspectives, opinions and choices in response to experiences (Head & Xiang, 2016; Peters, 2017; Reams, 2016; Tange, 2020).

Engagement is a highly dynamic, complex systemic construct (Chipchase *et al.*, 2017; Hurd, 2014; Ilies *et al.*, 2015; Tange, 2020), intimately and uniquely related to the changing identity and neuroplasticity (Sivalingam, Thomas & Karthikeyan, 2017) of stakeholders as they evolve in response to their interactions and experiences (Anderson, Warren & Bensemann, 2019; De Jaegher, 2016; Ilies *et al.*, 2015; Tange, 2020; Tomkins & Eatough, 2013). Each time someone interacts, their sense of self, knowledge, feelings, perspectives, or beliefs may change (Hultén, 2011), so they may interact differently (Kizilcec *et al.*, 2013), making engagement highly emergent and every engagement unique (van den Heuvel, Demerouti, Bakker & Schaufeli, 2013).

Tomkins and Eatough (2013) reveal three levels of experience: the largely unconscious flow of daily life, a deeper, more discerning awareness of context and a more personalised sense-making. As individuals engage in all three of these forms of practice, life is observed and assimilated into a cohesive whole, and change and learning happen. Every aspect of an

individual or organisation's past, what they imagine of the future, and their perceptions of the present are all part of a current experience (Crick & Bodie, 2016; Tomkins & Eatough, 2013). An experience elicits internal responses, comparisons with internal regulating systems and motivations and the release of energy to respond and reinforce or alter current ways of being. In this dialogue with life, an individual's habits of engaging may be disrupted, obstructed, or questioned (Crick & Bodie, 2016; Stein *et al.*, 2015).

A new experience is assimilated into the individual's new way of being, strengthening or weakening it and changing their five aspects of personhood from moment to moment (Beauchemin *et al.*, 2019; Chipchase *et al.*, 2017; Musser *et al.*, 2013; Tomkins & Eatough, 2013). It is commonly believed that people resist or withhold personal investment in the context of change (Godbole, 2017: 119; Sorre, 2016). It might be more accurate to explain that in the presence of change, people may resist pain or loss and wrestle with covert, competing commitments to factors such as safety, autonomy, financial well-being, status, power and certainty (Godbole, 2017: 120; Reams, 2016). As the systems within which stakeholders operate change, role-players may instigate or move with the change, resist it, or disengage from it. Existing beliefs, learning patterns, levels of situational awareness and other ways of being all impact how people change or respond to change (Gimba, 2017: 112). All change entails an ending of one state, a neutral transition, and the beginning of a new state of being (Gimba, 2017: 111). **Error! Reference source not found.** presents the fourth iteration of the conceptual framework, summarising the narrative description to this point.

**Table 10 The Emerging Conceptual Framework D**

<b>Alternative Framing for Wicked Problems</b>			
<b>Wicked problems are contained in problem ecologies</b>			
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.			
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.	
<b>Demands of wicked problems</b>			
Wicked problems present stakeholders with demands which may impact their engagement.			
<b>Alternative Framing for Stakeholders</b>			
<b>Stakeholders are whole, five-fold beings</b>			
Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.			
<b>Stakeholders are individual or collective agents, animate or inanimate</b>			
Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.			
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.



This sub-section has outlined key characteristics of stakeholders. Personal complexity has been explained, highlighting five SPISE aspects of personhood (Beauchemin *et al.*, 2019). Personal change and individual response to change have been proposed, as have the concepts of choice (Klingler & Gray, 2015), intention (Sullivan, 2018) and needs (Klingler & Gray, 2015; Sullivan, 2018; Turkdogan, 2017: 7-11). The researcher will proceed to elucidate a framework for making sense of stakeholder engagement.

### **3.5 Alternative Framing for Stakeholder Engagement**

The tertiary literature question (CFTQ3) explored in this section is:

How could stakeholder engagement be alternatively framed?

Answering this question contributes to answering the second secondary research question.

The researcher proposes that an alternative framing of stakeholder engagement to enable improved stakeholder engagement should address five alternative forms of stakeholder engagement.

#### **3.5.1 Five Forms of Stakeholder Engagement**

The conceptual framework proposes that stakeholder engagement is a term which describes five distinct but interrelated concepts: Firstly, stakeholder engagement is interaction between stakeholders and other entities. Secondly, it is being involved and contributing personal resources. Thirdly, it is a positive experience related to involvement. Fourthly, it is a process of developing commitment over time. Finally, it is the action taken by leaders to involve other stakeholders. This proposition is supported by perspectives from the literature.

This proposed framing of stakeholder engagement differs from the engagement of stakeholders by a central organisation, which is usually driven by a competitive motive that prioritises the strategic needs and objectives of the organisation. The boundary-crossing nature of wicked problems seems to support a more egalitarian and collaborative form of engagement (Du & Kadyova, 2016) in line with a growing emphasis on co-creation and “shared leadership, less leadership or no leadership” (Tourish, 2014: 79).

**Table 11** presents the fifth iteration of the conceptual framework, summarising the narrative description to this point.

**Table 11 The Emerging Conceptual Framework E**

<b>Alternative Framing for Wicked Problems</b>			
<b>Wicked problems are contained in problem ecologies</b>			
Wicked problems are systemically connected to the problem ecologies in which they arise.			
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.	
<b>Demands of wicked problems</b>			
Wicked problems present stakeholders with demands which may impact their engagement.			
<b>Alternative Framing for Stakeholders</b>			
<b>Stakeholders are whole, five-fold beings</b>			
Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.			
<b>Stakeholders are individual or collective agents, animate or inanimate</b>			
Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.			
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.
<b>Alternative Framing for Stakeholder Engagement</b>			
<b>Five forms of stakeholder engagement</b>			
Stakeholder engagement describes five distinct but interrelated concepts.			

*3.5.1.1 Stakeholder Engagement as Interaction*

The conceptual framework proposes that stakeholder engagement is interaction between stakeholders and the elements of the problem ecology. Discrete, bilateral interactions with other entities are generally based on a social contract. Interaction is located in time and space with multiple levels of the system. Interaction may be mediated by human or non-human representatives. This proposition is supported by perspectives from the literature.

Engagement can be considered in the context of discrete interactions, episodes or occasions (Bakker & Demerouti, 2016). Interaction involves a social contract (Kahn, 1990) or social exchange (Schaufeli, 2013: 20) and is bilateral – initiated by either and the responsibility of both (Harmeling *et al.*, 2017; Hollebeek *et al.*, 2016a; Hollebeek *et al.*, 2016b; Kahn, 1990; Trowler, 2016; Vivek *et al.*, 2012). Interactions are unique events (Valcourt, Walters, Will & Linden, 2019) in which the depth and quality of investment can vary from instance to instance (Kahn, 1990).

Engagement is located in time (Jonas *et al.*, 2018) and potentially at alternative levels of the system in the macro, meso, exo or micro-space (Brennan *et al.*, 2016; de Moor, 2015; Oosthuizen, 2017). Whilst a focal engagement or interaction (Hollebeek *et al.*, 2016a; Lourenço, 2016) occurs at the micro-level, interaction is simultaneously occurring with the

macro environment, spatially or temporally (Brennan *et al.*, 2016; de Moor, 2015; Jonas *et al.*, 2018; Oosthuizen, 2017) and the experience is being incorporated into the individual's way of being (Crick & Bodie, 2016).

Within the stakeholder system, individual people may also represent other parts of the system (Lehtinen & Aaltonen, 2020; Williams, 2016). For example, a manager may represent the organisation. In this case, stakeholder identity confusion and incongruence or dissonance may occur (Devereaux, Melewar, Dinnie & Lange, 2020), as these mediators represent both their own intentions (Azlan *et al.*, 2020), ways of connecting (Kahn, 1990; Jonas *et al.*, 2018) and actions (Bannink & Trommel, 2019; Jonas *et al.*, 2018), and those of their principals, in the engagement (Gregory *et al.*, 2020; Kahn, 1990).

Similarly, interactions between stakeholders within the problem ecology (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) may be mediated by other non-human entities (Baeder, 2018; Heikkurinen & Mäkinen, 2018: 5; Pierroux, 2018: 132), but behind these tools and technologies are other people who shape the purpose, appeal and function of these inanimate mediating entities (Baeder, 2018; Skøien, 2018). By specific intention, these entities may be designed to incorporate features which enable and foster connections and perform functions to benefit the individual who engages with them (Di Ganghi & Wasko, 2016; Halverson, 2016; Johnston & Taylor, 2018a: 3).

### 3.5.1.2 Stakeholder Engagement as Investment

The conceptual framework proposes that stakeholder engagement is the investment of personal resources by stakeholders within the context of the problem ecology. Stakeholders are offered many investment choices and presented with many demands. Their investments fluctuate as they engage with and disengage from alternative interactions. Stakeholder investments are impacted by their resources and choices. This proposition is supported by perspectives from the literature.

When stakeholders engage in the context of wicked problems, they invest (Kahn, 1990) personal energy (Beauchemin *et al.*, 2019) in interactions at specific points in time and locations (Brennan *et al.*, 2016; de Moor, 2015; Jonas *et al.*, 2018; Oosthuizen, 2017), with different elements of the socio-material of the system (Clarke & Ashhurst, 2018: 153).

Wicked problems present stakeholders with many demands (Bakker & Demerouti, 2016) and investment choices (Kahn, 1990). Within these ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015), stakeholder investments fluctuate in intensity from moment to moment and hour to hour (Bakker, 2015; Bakker & Demerouti, 2016; Bledow *et al.*, 2011; Hollebeek *et al.*, 2016a; Hollebeek *et al.*, 2016b; Hurd, 2014; Ilies *et al.*, 2015; Kahn, 1990; Vivek *et al.*, 2012) as individuals engage with and disengage from (Hurd, 2014; Kizilcec *et al.*, 2013) multiple alternative focal interactions (Hollebeek *et al.*, 2016a; Lourenço, 2016).

It is risky to presume to understand how and why stakeholders invest (Bloom, Wilkinson, Standing & Lucas, 2014; Desiderio, 2017) because, as explained in sub-section 3.4.2.4, whatever is true of them in one moment may cease to be true in the next (Anderson *et al.*, 2019; De Jaegher, 2016; Ilies *et al.*, 2015; Tange, 2020; Tomkins & Eatough, 2013). However, for the purpose of this research, engagement as investment requires two essential factors: the availability of resources (Bakker & Demerouti, 2016) and the will or choice to invest (Bloom *et al.*, 2014; Ison *et al.*, 2015; Kahn, 1990; Klingler & Gray, 2015). In other words, stakeholders invest because they can and because they want to.

Kahn (1990: 719) concludes that “It is at the swirling intersections of those influences that individuals make choices.... to employ and express or withdraw and defend themselves”.

### *3.5.1.3 Stakeholder Engagement as Leading Other Stakeholders*

The conceptual framework proposes that stakeholder engagement is the action taken by leaders to involve other stakeholders in the problem ecology. It is what leaders do to make other stakeholders want to engage. Recognising that there are competing potential interactions in which stakeholders can invest, leaders take action to elicit the investment of other stakeholders in the wicked problem context. This proposition is supported by perspectives from the literature.

Because wicked problems cross boundaries (Veltman, Van Keulen & Voogt, 2019), it may be unclear who is responsible for defining and facilitating these processes (Reinecke & Ansari, 2016). Tourish (2014) points out a leadership trend towards co-creative leading, but it is unclear how this works in practice in the wicked problem context. This seems to be a gap in the theory.

Those who take on some form of facilitative or leadership responsibility within these systems (Pretorius, 2017; Reinecke & Ansari, 2016; Wakayama & LaPierre, 2017) must be able to engage in an environment of complexity (Alford & Head, 2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), change (Craig, 2020; Dentoni *et al.*, 2018; Peters, 2017), and conflict (Coleman, 2006). They must be willing to invest resources and time into this context (Grobler, 2017; Rafflesia *et al.*, 2017; Short *et al.*, 2015; Skøien, 2018; Tziner *et al.*, 2019), embracing these challenges to move the system to a healthier or less wicked state (Babatunde, 2013; Burge & McCall, 2015; Daviter, 2017).

As the researcher argued in sub-section 3.4.2.1, personal intentions fuel engagement (Kahn, 1990; Klingler & Gray, 2015; Mack, 2018). Thus, to keep stakeholders engaged in wicked problems, it must be personally rewarding for them to invest their time and resources. Facilitators need to be conscious of the inherent rewards and threats that stakeholder engagement offers and the other choices available to stakeholders, which potentially conflict with this engagement (Attfield *et al.*, 2011; Short *et al.*, 2015). Positive engagement

experiences, as discussed in the next sub-section, probably provide the kind of reward that fosters further engagement.

#### 3.5.1.4 Stakeholder Engagement as an Experience

The conceptual framework proposes that stakeholder engagement is a positive experience that stakeholders enjoy when they are involved in the problem ecology. It is an outcome of investing in interactions and represents a positive return related to the stakeholder's goals, needs and the value which they place on the experience of interacting. The changes, complexities and conflicts in the problem ecology may offer rewards or threats to stakeholders, which depend on their personal resources and which impact their experience of their interactions. This proposition is supported by perspectives from the literature.

People choose to engage because they have an expectation that doing so will enable them to achieve one or more of the intentions that contribute to their quality or ideal world (Florez, Guertzovich, Mills & Tonn, 2018; Haataja, 2020; Johnston *et al.*, 2019). The choice to invest and to continue investing is largely a factor of the value that the individual places on the return expected in response to their investment (Akingbola & van den Berg, 2019; McManus & Mosca, 2015; Schaufeli, 2013: 15).

Interactions are sensually perceived, inter-subjective, co-created, co-experienced; mutually impactful, transformative, fluid and uncertain (De Jaegher, 2016). Stakeholders cannot have an experience without being challenged by it, changed by it and learning from it at a whole-person level (Crick & Brodie, 2016; Harmeling *et al.*, 2017; Klingler & Gray, 2015; Kossek & Perrigino, 2016; Mahmoudi, Jafari, Nasrabadi & Liaghatdar, 2012; Trowler, 2016).

Context impacts the engagement of stakeholders through the alternative choices, rewards, and threats that it offers and the needs and expectations it creates (Sullivan, 2018). The changes, complexities and conflicts in the problem ecology (Fenn & Hobbs, 2015: Irwin *et al.*, 2015), outlined in section 3.3, may be experienced positively or negatively by stakeholders (Glasser, 2013; Termeer & Dewulf, 2019) and engagement is likely to fluctuate in response to the reward or threat which they each perceive to be associated with investing or not investing (Babatunde, 2013; Kahn, 1990).

An interaction may be fulfilling if it inherently meets an immediate need or goal (Green *et al.*, 2017). Rewarding interactions are likely to foster further engagement through increased availability of resources or the offer of further returns (Babatunde, 2013; Bakker, 2015; Bakker & Demerouti, 2016; Hargrove *et al.*, 2015). In contrast, the challenges within problem ecologies (Fenn & Hobbs, 2015: Irwin *et al.*, 2015) might be perceived as threatening if stakeholders lack the personal resources to meet the challenge or if the experience or return on investment is negative (Angle, 2018; Hurd, 2014). In that case, stakeholders might reduce the risk of threat by altering their intentions (De Castella *et al.*, 2013), or they could withhold

investment. Such disengagement could further precipitate a loss spiral, where withdrawal reduces access to resources and fuels depletion (Bakker & Demerouti, 2016).

### 3.5.1.5 Stakeholder Engagement as a Process

The conceptual framework proposes that stakeholder engagement is the process through which stakeholders become increasingly committed to investing their personal resources within the problem ecology. Stakeholders do not remain optimally or permanently engaged with any entity. Over time their investment fluctuates. The process of becoming engaged is impacted by how important the context is to the stakeholder. This proposition is supported by perspectives from the literature.

As presented in section 3.2, the stakeholders who are engaged within problem ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) are subject to the challenges of complexity (Capra & Luisi, 2014: 4; Eoyang & Mennin, 2019; Snowden *et al.*, 2020: 39), change (Craig, 2020; Dentoni *et al.*, 2018; Peters, 2017), and conflict (Bannink & Trommel, 2019; Carcasson & Sprain, 2016) which characterise these ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015). Their engagement involves the choice to invest personally (Kahn, 1990), motivated by the expectation of a meaningful return on the investment aligned with intentions or needs (Kahn, 1990; Schaufeli, 2013: 15). Whilst the specific identity of the stakeholders engaged with a wicked problem will probably change over time (Gregory *et al.*, 2020), there will always be entities with interest in, affected by and actively or passively involved in these concerns (Dembczyk & Zaoral, 2014; Heikkurinen & Mäkinen, 2018: 5; Keenan, 2020).

Focal engagements (Kleinaltenkamp, Karpen, Plewa, Jaakkola & Conduit, 2019) with other stakeholders may be one-off interactions, or they may endure over time (Varenova, 2017). Since wicked problems are believed to be unsolvable (Burman *et al.*, 2017; Dentoni *et al.*, 2018), stakeholder involvement within these systems may be of long duration (Danken *et al.*, 2016; Hamby *et al.*, 2017). As they make choices during this process of engagement (Kahn, 1990), stakeholders potentially vary their investment in interactions depending on the emerging state of the changing (Craig, 2020; Dentoni *et al.*, 2018; Peters, 2017), complex (Capra & Luisi, 2014: 4; Eoyang & Mennin, 2019; Snowden *et al.*, 2020: 39), and conflictual ecosystem (Bannink & Trommel, 2019; Carcasson & Sprain, 2016).

In bi-directional or multi-directional engagement interfaces between mutually-influential stakeholders (Brennan *et al.*, 2016; Johnston & Taylor, 2018a: 5), interactions progress through reciprocal investing (Kahn, 1990), experiencing (De Jaegher, 2016), changing (Head & Xiang, 2016; Peters, 2017; Reams, 2016; Tange, 2020) and responsive investing (Kahn, 1990), until one or both parties reduce investment by choice or through depletion (Ilies *et al.*, 2015; Kahn, 1990; Schaufeli & Salanova, 2014: 313; Vivek *et al.*, 2012).

The process of stakeholder engagement must integrate multiple context-specific interactions (Dembczyk & Zaoral, 2014; Du & Kadyova, 2016), and in the context of complex, wicked

problems, they must be iteratively repeated over extended periods of time as the system changes (Waddock *et al.*, 2015) and new conflicts emerge (Lumumba-Kasongo, 2017; Vallacher *et al.*, 2013: 10). They provide structure for making decisions and for enforcing agreements (Bitsch, 2016; Dembczyk & Zaoral, 2014). Researchers have mentioned the process of stakeholder engagement, but there is not a lot of literature proposing what that may look like in practice. This seems to be a gap in the theory.

**Table 12** presents the sixth iteration of the conceptual framework, summarising the narrative description to this point.

**Table 12 The Emerging Conceptual Framework F**

Alternative Framing for Wicked Problems				
<b>Wicked problems are contained in problem ecologies</b>				
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.				
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.		
<b>Demands of wicked problems</b>				
Wicked problems present stakeholders with demands which may impact their engagement.				
Alternative Framing for Stakeholders				
<b>Stakeholders are whole, five-fold beings</b>				
Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.				
<b>Stakeholders are individual or collective agents, animate or inanimate</b>				
Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.				
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.	
Alternative Framing for Stakeholder Engagement				
<b>Five forms of stakeholder engagement</b>				
Stakeholder engagement describes five distinct but interrelated concepts.				
Stakeholder interactions	Stakeholder investment	Leading stakeholders	Stakeholder experience	Stakeholder engagement process

### 3.6 Conceptual Framework

This chapter built on the literature review to construct a conceptual framework in response to the second secondary research question (SRQ2):

How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?

The conceptual framework presents alternative frames for wicked problems, stakeholders and stakeholder engagement. The alternative frame for wicked problems emphasises that wicked problems are contained in problem ecologies and represent demands to stakeholders. The alternative frame for stakeholders emphasises that stakeholders are whole, five-fold beings who act as individual or collective agents. The alternative frame for stakeholder engagement emphasises five distinct but interrelated stakeholder engagement concepts.

The completed framework, as explained in the narrative description, is integrated in **Table 13** below, including brief descriptions of the key concepts.

**Table 13 The Conceptual Framework**

Alternative Framing for Wicked Problems			
<b>Wicked problems are contained in problem ecologies</b>			
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.			
<b>Problem ecologies are systemically complex.</b>  Problem ecologies are living systems characterised by many interdependent and interconnected variables.	<b>Problem ecologies are constantly changing.</b>  Problem ecologies are living systems characterised by constantly shifting patterns at multiple levels within the system.	<b>Problem ecologies are fraught with conflict.</b>  Problem ecologies are living systems characterised by gaps, differences, contradictions, polarities and obstacles.	
<b>Demands of wicked problems</b>			
Wicked problems present stakeholders with demands which may impact their engagement.			
Alternative Framing for Stakeholders			
<b>Stakeholders are whole, five-fold beings</b>			
Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.			
<b>Stakeholders are individual or collective agents, animate or inanimate</b>			
Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.			
<b>Stakeholders have intentions.</b>  Stakeholders are goal-directed, which means that there is reason behind their behaviour.	<b>Stakeholders make choices.</b>  Stakeholders choose their behaviour in order to meet their needs and achieve their goals.	<b>Stakeholders have needs.</b>  Stakeholders have needs which must be met to participate or engage effectively. These needs are strong drivers of intention and choice.	<b>Stakeholders change.</b>  Stakeholders are constantly changed through assimilating their experiences and on-going interactions with their environment.



<b>Alternative Framing for Stakeholder Engagement</b>				
<b>Five forms of stakeholder engagement</b>				
Stakeholder engagement describes five distinct but interrelated concepts.				
<b>Stakeholder interactions</b> Stakeholder engagement is interaction between stakeholders and the elements of the problem ecology.	<b>Stakeholder investment</b> Stakeholder engagement is the investment of personal resources by stakeholders within the context of the problem ecology.	<b>Leading stakeholders</b> Stakeholder engagement is the action taken by leaders to involve other stakeholders in the problem ecology.	<b>Stakeholder experience</b> Stakeholder engagement is positively motivated by experiences which are rewarding.	<b>Stakeholder engagement process</b> Stakeholder engagement is the process through which stakeholders become increasingly committed to involvement within the problem ecology.

### **3.7 The Potential to Improve Stakeholder Engagement**

This section concludes the presentation of the conceptual framework by suggesting a few tentative Initial ideas about how it may offer possibilities for the improvement of stakeholder engagement. This discussion has assumed the existence of a hypothetical leader who has the intention to improve stakeholder engagement.

#### ***3.7.1 The Potential in an Alternative Understanding of Wicked Problems***

Understanding that wicked problems exist within problem ecologies that are complex, changing and conflictual helps leaders to understand what it is that stakeholders are engaging with. Stakeholders don't engage in a vacuum. They engage with and in the context of a complex, changing and conflictual system. Different elements of that system may be inherently rewarding or threatening to different stakeholders, and this may influence their choice to engage.

Leaders might improve stakeholder engagement by paying attention to the complexity in the system, understanding its impact, facilitating different connections, or changing the entities in the system. The effectiveness of engagement and realisation of positive outcomes through stakeholder engagement might be facilitated through a deeper understanding of the interdependencies within the ecology.

Stakeholder engagement may also be improved by creating processes and systems which are more responsive to change, which improve the flow of information and which facilitate prompt feedback. Stakeholder development and learning can also support the ability of stakeholders to respond to new realities in the problem ecology.

Finally, stakeholder engagement could be improved if leaders gained insight into the conflicts which pervade wicked ecologies. This understanding could identify gaps which need to be filled, disagreements which need to be resolved, or alternative perspectives which could be harnessed to foster innovation and progress.

### ***3.7.2 The Potential in an Alternative Understanding of Stakeholders***

A new understanding of stakeholders also offers the potential to improve stakeholder engagement. Stakeholders, for the purpose of this study, were people, so an understanding of them as such was vital to understanding how to improve their engagement. Understanding the whole, five-fold character of stakeholders using the SPISE framework assists leaders in appreciating the resources which stakeholders have to offer, and understanding their intentions will give insight into what may motivate them to engage in the short and longer term.

These motives will also impact how stakeholders exercise their choices. Recognising them as autopoietic agents reduces the assumption that stakeholders will comply or be involved as a matter of course. It encourages more intentional decision-making and deliberate action to make engagement a rewarding option and an enjoyable, meaningful experience. In the context of wicked problems, attention is often focused on the needs of affected or vulnerable stakeholders. However, all stakeholders have needs which impact their goals and motives and, ultimately, their propensity to engage. Deliberately listening to stakeholder needs can foster more effective processes.

Seeing stakeholders as changing beings reminds leaders that what was true of a stakeholder yesterday may not be true today. Leaders need to be constantly rediscovering their stakeholders over time. Stakeholder change also offers potential for their contribution to fluctuate based on their personal resources. The more leaders can do to enrich stakeholder resources, the more likely they will be to invest constructively.

### ***3.7.3 The Potential in an Alternative Understanding of Stakeholder Engagement***

Understanding what stakeholder engagement is, is vital when considering how it might be improved. The different meanings of the term 'stakeholder engagement' enable a leader to more accurately define which form of engagement they want to enhance – the nature of interactions, investment by other stakeholders, the experience which stakeholders have when they get involved, the on-going process of deepening commitment or their own ability to foster investment by others. It may be that they want to improve all of these.

Each different framing of stakeholder engagement offers alternative possibilities for improvement. Both stakeholder interactions and stakeholder engagement processes might be improved through fostering relationships or understanding and developing meaningful objectives. Stakeholder investment might be improved by improving stakeholder experiences and rewarding stakeholder investment.

### 3.8 Conclusion

This chapter has constructed an initial conceptual framework for stakeholder engagement in the context of wicked problems, summarised in **Table 13**. This framework was positioned relative to the research concepts, objectives and questions.

The framework was built on the scaffold of the three key concepts which have served the aim of the research: wicked problems, stakeholders and stakeholder engagement. Finally, potential applications of this framework were presented, which might improve stakeholder engagement in the context of wicked problems.

The conceptual framework proposes that wicked problems be considered in the problem ecologies in which they are created. These ecologies are characterised by complexity, change and conflict. Considering stakeholders, the conceptual framework proposes that they are whole, five-fold beings who are key agents, each with a stake in the problem. Lastly, the conceptual framework proposes that there are five forms of stakeholder engagement: interaction, investment, leading, experience and process.

The next chapter will explain the application, in this study, of the research design and methodology principles introduced in Chapter 1.

## 4 RESEARCH DESIGN AND METHODOLOGY

### 4.1 Introduction

In Chapter 3, the researcher answered the second secondary research question and achieved the first outcome of the study by presenting a conceptual framework for stakeholder engagement in the context of wicked problems. The framework was inductively developed from data assimilated in the literature review.

Design turns the research question into a research project (Saunders *et al.*, 2011: 136). This chapter outlines how design and methodology were employed to ultimately answer the primary research question and achieve the aim of the study.

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the primary research question and the research aim, which the research design and methodology must support.

#### Extract from Table 3 Summary of Research Project (Duplicated)

Aim and Objectives	Research Questions
<b>Aim</b> Propose a sense-making framework for improving stakeholder engagement in the context of wicked problems	<b>Primary Research Question</b> How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?

Academic excellence prescribes congruence between the research design and methodology, the researcher's ontology, the selected epistemology and all other research concepts (Cresswell, 2007: 42). A narrative overview of the frame of reference for this study was included in section 1.9.

**Table 14** provides a visual summary of the research concepts and identifies where in this document they have been introduced theoretically and rationalised and where the application to the study has been explained.

**Table 14 Research Concepts**

<b>Research Concept</b>	<b>Study</b>	<b>Chapter 1</b>	<b>Chapter 4</b>	<b>Chapter 5</b>	<b>Chapter 6</b>
<b>Ontology</b>	Relativism	Introduction, Rationale, Explanation and Application	Reference Chapter 1	Congruence	Congruence
<b>Epistemology</b>	Subjectivist	Introduction, Rationale, Explanation and Application	Reference Chapter 1	Congruence	Congruence
<b>Research Paradigm</b>	Social Constructivist / Interpretivist	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Interpretive Lens</b>	Systems Thinking	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Research Design</b>	Exploratory	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Type of Enquiry</b>	Inductive	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Research Method</b>	Qualitative	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Sampling</b>	Non-representative, Non-probability	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Data Collection</b>	Interviews, Focus Group	Introduction & Rationale	Explanation & Application	Congruence	Congruence
<b>Data Analysis</b>	Coding	Introduction & Rationale	Explanation	Application	Congruence

The next sub-section applies the social constructivist/ interpretivist paradigm to the research design.

#### **4.2 Applying the Social Constructivist/ Interpretivist Research Paradigm**

Chapter 1 introduced the social constructivist/ interpretive paradigm, which guided this study and required the co-construction of shared meaning through interaction (Lombardo &

Kantola, 2021: 125-126). In practice, this co-construction meant building on the work of existing theory and incorporating the perspectives of research participants.

As a social constructivist/ interpretivist study, this theory-building research relied heavily on the co-development of the key concepts through interaction with other thinkers and their contexts, in person or through their written works (Amineh & Asl, 2015). Throughout the process, new interpretations and iterations of several concepts emerged and were ultimately brought together to create the sense-making framework (Kara, 2019). This social construction involved three primary social activities.

The foundation of the study was built on a literature review to position the research in the context of existing theoretical perspectives of wicked problems, stakeholders and stakeholder engagement. The authors involved, whose interpretations and ideas were integrated, were thus part of the constructivist dialogue, albeit passively (Lombardo & Kantola, 2021). The review anchored the study on existing theory, demonstrated how the research fits into the current body of knowledge (Saunders *et al.*, 2011: 59) and allowed the researcher to build on the work of previous theorists (Saunders *et al.*, 2011: 59). The approach to the literature review was detailed in Chapter 2.

Participants contributed to the interpretive and constructive process. Individual interviews were conducted with participants who provided their perspectives of wicked problems, stakeholders, stakeholder engagement and related concepts which arose in these semi-structured conversations. The researcher also presented the sense-making framework, developed from the findings, to a focus group. These participants critiqued the sense-making framework and provided insights regarding potential application to improved stakeholder engagement in the context of wicked problems.

The systemic interrelatedness of ideas yielded unexpected insights (Salen & Zimmerman, 2004: 1). Stakeholder engagement emerged as five interconnected concepts, each holding potential for improved practice, following an exploration focused on different interpretations of the concept of engagement. Although under-represented as a construct in the literature, stakeholder engagement as a process gained prominence as a construct. This insight was sparked by literature about user engagement in the context of software use and online gaming (Bonometti *et al.*, 2020).

Since the objective of social constructivism is the collaborative generation of new knowledge, the researcher played a facilitative role (Amineh & Asl, 2015). However, she felt constrained at times by an expectation conveyed by academic support staff that she could not lead participants in any way. She did not feel that she had the freedom to contribute insights gained from other theorists or from her experience in the dialogue. The effectiveness of the generative process (Ritchie & Lewis, 2003: 30) felt compromised by the lack of opportunity to cross-pollinate knowledge that had already been constructed. For example, the wicked problem construct was well-established, albeit still debated in the literature. However, it was

not as well established in daily lay use, and some of the participants had no academic context. It would have been helpful to provide a basic explanation to participants, who could then have been invited to expand on that foundation in interactive and iterative dialogue without compromising academic integrity (Saunders *et al.*, 2011: 111).

The next section applies the systems thinking interpretive lens to the study.

#### **4.2.1 Applying a Systems Thinking Interpretive Lens**

A social constructivist/ interpretivist research paradigm supports the subjectivist epistemology and assumes that researcher, authors, supervisors, participants and examiners will construct their perspectives and opinions through subjective interpretation (Ritchie & Lewis, 2003: 21; Salazar *et al.*, 2015: 211).

The systems thinking lens informed the primary and secondary research questions identified in section 1.7. Wicked problems, stakeholders and stakeholder engagement all fit the explanation of a system presented in section 1.5.2.1. In Chapter 5, it was proposed that wicked problems and stakeholders should be viewed as a system or ecology and whilst the idea was not developed in this study, a recommendation for further research proposed that further enquiry be conducted into the idea of a stakeholder system.

The fractal concept introduced in section 1.5.2.1 was evident in the development of the conceptual framework in Chapter 3. The concepts of complexity, change, and conflict were first evident in the problem ecology construct. Since stakeholders are a fractal of the problem ecology, the implications of complexity, change and conflict were explored to make sense of who stakeholders are and how they might engage. Stakeholder complexity was interpreted through the lens of the SPISE framework, which then informed the researcher's interpretation of the different meanings of stakeholder engagement. These systemic interpretations were all further refined through the constructive process of the participant interviews and the focus group to produce the sense-making framework.

This section explained how the social constructivist and interpretivist principles outlined in Chapter 1 were evident in how the study was conducted and the design and methodology choices were made. The next sub-section provides an explanation of how the principles of exploratory investigation were applied to the design of the study.

### **4.3 Applying the Exploratory Design**

In Chapter 1, the exploratory nature of this enquiry was introduced as a means to better understand a situation (Dudovskiy, 2016; Saunders *et al.*, 2011: 139). The exploration was focused on better understanding the problem of the apparent failure of stakeholder engagement in the context of wicked problems. This established an intention to explore stakeholder engagement in the context of wicked problems through three primary methods: a literature review, individual interviews and a focus group.

The exploration involved eight core activities detailed in **Table 15**. Cross-references have been provided to introductory theory and to the application of the theory in this study.

**Table 15 Research Activities**

Activity	Theoretical Introduction	Application in the Study
Literature review	Chapter 2	Chapter 2
Development of the conceptual framework	Chapter 1	Chapter 3
Finalisation of research instrument	Chapter 1	Chapter 4
Ethical clearance	Chapter 1	Chapter 4
Selection of research participants	Chapter 1	Chapter 4
Data collection	Chapter 1	Chapter 4
Data analysis	Chapter 1	Chapter 4
Findings and development of the sense-making framework	Chapter 1	Chapters 4, 5 and 6

Three secondary research questions informed this exploration, and the different exploratory methods were each relevant to different questions, as illustrated in **Table 16**. The researcher’s personal interpretations and constructive involvement facilitated these explorations, as she took on the roles of ‘researcher as instrument’ (Ritchie and Lewis, 2003: 142) and ‘researcher as explorer’ (Power *et al.*, 2018) throughout the study, as explained in sub-sections 1.8.1 and 1.8.2.2.

**Table 16 Exploratory Methods Related to Secondary Research Questions**

<p><b>SRQ1</b></p> <p>What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</p>	Primarily explored in the literature review.
<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>	Primarily explored in the development of the conceptual framework and in the individual interviews.
<p><b>SRQ3</b></p> <p>How could the concepts of wicked problems, stakeholders and stakeholder engagement be</p>	Primarily explored in the analysis of the individual interviews and in the development of the sense-making framework.



integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?	
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<b>SRQ4</b> How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?	Primarily explored in the focus group and in the development of recommendations.
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Answering these questions enabled answering the primary research question:

‘How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?’

The outcome of the exploration was thus the sense-making framework presented in section 5.5. Throughout the study, the exploration was fuelled by the researcher’s curiosity (Ritchie & Lewis, 2003: 142) and revealed some unexpected outcomes which urged new investigations. This was an expected result of effective exploratory research (Saunders *et al.*, 2011: 140). A few particularly powerful insights were pivotal in this exploratory study.

One unexpected insight gained through exploration in the literature review was the alternative linguistic use of the word engagement in the literature. This shed light on the lack of definitional clarity, defended by some authors (Sandmann *et al.*, 2016: 6). Viewing engagement as five distinct but related constructs rather than one also added exploratory depth to the study and assisted the structuring of the conceptual framework presented in Chapter 3.

The notion of problem ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) was another powerful insight gained during the exploration in the literature review. This concept provided the opportunity to propose the three qualities of complexity, change and conflict, explained in section 3.3, as common tenets of these environments. It further informed the exploration in the field research through the development of the research instrument, which will be discussed in sub-section 4.4.1.

This sub-section has explained what impact the exploratory enquiry principles, outlined in Chapter 1, had on how the study was conducted and the design and methodology choices. The exploratory enquiry informed the inductive reasoning that supported the generation of theory from the data. In the next sub-section, the application of the principles of inductive reasoning to the design of the study will be explained.

### **4.3.1 Applying Inductive Reasoning**

In Chapter 1, inductive reasoning was introduced as the logic underpinning the generation of theory from data through this qualitative research (Saunders *et al.*, 2011: 61). The study aimed to develop a sense-making framework for improving stakeholder engagement in the context of wicked problems. This aim was supported by three objectives which framed the anticipated theoretical outcomes of the inductive process. The first research objective was to:

Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement (RO1).

Meeting this first research objective required inductive generation of the conceptual framework. The data from which the conceptual framework was generated came primarily from the literature, interpreted by the researcher. The inductive process to develop the conceptual framework was articulated after this explanation of the relationship between the research objectives and the inductive processes. The second research objective was to:

Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems (RO2).

Meeting the second objective required inductive generation of the sense-making framework presented in section 5.5. The data from which the sense-making framework was generated came primarily from the individual interviews, informed by the conceptual framework and interpreted by the researcher. The inductive process has been articulated in section 4.3.1. The last research objective was to:

Review the proposed sense-making framework for coherence and application to improving stakeholder engagement (RO3).

Meeting the third objective required inductive generation of the findings in Chapter 5 and the recommendations in Chapter 6. The data from which these findings and recommendations were generated came primarily from the focus group interviews, informed by the sense-making framework and interpreted by the researcher. The inductive process has been articulated in section 4.3.1.

Meeting the aim of the study required the researcher to synthesise the outcomes achieved through meeting these three objectives, and has been summarised in Chapter 6

The development of the conceptual framework involved three activities; 1) Managing, sorting and synthesising the data, mostly during the literature review. 2) Interpreting and understanding the data. 3) Producing the descriptive and explanatory outputs in the form of a framework (Ritchie & Lewis; 2003: 220). Appraising literature review data originated a distinctive and emergent conceptual framework. The constructs recommended by the conceptual framework provided provisional codes (Saldaña, 2013: 59) for the analysis of the

data collected during the fieldwork, as justified by Ritchie and Lewis (2003:221) and presented in sub-section 4.4.5.

This sub-section has explained the impact of the inductive reasoning principles, outlined in Chapter 1, on how the study was conducted and the design and methodology choices. Inductive reasoning was founded on qualitative data. The next sub-section will explain the methods and techniques by which qualitative data were collected and analysed in this study.

#### **4.4 Applying Qualitative Methods**

In Chapter 1, the qualitative methods which apply to this study were introduced, and the researcher highlighted an understanding that qualitative methods generate qualitative data (Saunders *et al.*, 2011: 482), which in turn is used inductively to generate theory (Saunders *et al.*, 2011: 61). Qualitative data were collected in the field through qualitative data collection methods.

The explosion of qualitative research since the mid-1970s has allowed for social research to become more participative, emancipative, situational, reflexive, narrative and personalised (Ritchie & Lewis, 2003: 6-11). These qualities were reflected in the use of participant interviews, a focus group conversation and the use of CAQDAS software for data analysis (Saunders *et al.*, 2011: 480). Participants in the study provided rich, thick data (Fiaidhi & Mohammed, 2019; Ritchie & Lewis, 2003: 5, 21) in the form of stories, examples and experience-based responses to semi-structured open-ended interview questions.

Raw qualitative data were produced, in response to questions, during the individual and focus group interviews in the form of audio recordings and handwritten notes. The audio recordings were professionally transcribed, and the transcripts were analysed as per the process explained in section 4.4.5. Handwritten notes were used during the interview to help the researcher to guide the interview process. They were not used during data analysis. All raw data and transcripts were managed in accordance with ethical and confidentiality standards, as defined in the Da Vinci code of ethics (Da Vinci Institute, 2010) and the consent forms were signed by the participants.

##### **4.4.1 Research Instrument Development**

The collection of qualitative data required the development of an effective research instrument designed to continue the exploration of the primary research question (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21).

###### **4.4.1.1 Individual Interview Instrument Development**

An interview guide was developed (Ritchie & Lewis, 2003: 115), comprising possible open questions which could be used in semi-structured interviews or by focus groups (Saunders *et al.*, 2011: 337, 343). In the discussion which follows in this sub-section, it is important to distinguish between research questions and interview questions. The research questions

frame the study. The interview questions are directed to participants in individual interviews. For clarity, secondary research questions and tertiary questions are research questions. Primary, ancillary and actual questions are interview questions. Answers to the interview questions help to answer the research questions.

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of the individual interviews to achieving the aim of the research.

**Extract from Table 3 Summary of Research Project (Duplicated)**

Aim and Objectives	Research Questions	Research Concepts and Activities
<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>	<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>	<p>Conceptual framework. Individual interviews.</p>

The collection of data in the individual interviews sought to answer the same questions as the development of the conceptual framework and entailed answering the second secondary research question, which can be broken down as indicated in **Table 17**, which is similar to **Table 5**, which is included in Chapter 3.

**Table 17 Framing the Research Instrument Development**

<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>		
<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>		
<p><b>Research Instrument Tertiary Question 1 (RITQ1)</b></p> <p>How could wicked problems be alternatively framed?</p>	<p><b>Research Instrument Tertiary Question 2 (RITQ2)</b></p> <p>How could stakeholders be alternatively framed?</p>	<p><b>Research Instrument Tertiary Question 3 (RITQ3)</b></p> <p>How could stakeholder engagement be alternatively framed?</p>

The research instrument or interview guide was developed to continue the exploration of an alternative framing of wicked problems, stakeholders and stakeholder engagement, using the template illustrated in

**Table 18**. A similar table was developed for each secondary research question, which was written into the first row of the table. The first column provided a place to document the

purpose of the question; an explanation of the data to be elicited. The second column provided a place to document the nature of themes which could potentially emerge from the questions, and in the third column, potential primary and ancillary exploratory interview questions were listed.

**Table 18 Interview Question Development Template**

<b>Secondary Research Question</b>		
<i>Purpose</i>	<i>Themes</i>	<i>Questions</i>
An explanation of data which the researcher hopes to elicit.	Possible related themes to explore.	PQ – A primary interview question (1 per theme) AQs – Multiple ancillary questions related to the primary interview question.

**Table 19** provides the rationale for the development of the interview questions. It maps the primary interview questions to the secondary research questions documented in **Table 17** above. **Table 17** positions the primary interview questions in relation to the second secondary research question. In addition, the researcher has provided examples from the actual interview questions.

**Table 19 Rationale for Interview Guide Development**

<b>Interview Questions</b>		
Primary Interview Questions were defined in the interview.		
<b>Primary Interview Question</b> What is a wicked problem?	<b>Primary Interview Question</b> How would you explain stakeholders?	<b>Primary Interview Question</b> How would you explain stakeholder engagement?
<b>Actual Interview Questions</b> Can you give me your understanding of what wicked problems are? What do you think are the sort of key characteristics of wicked problems?	<b>Actual Interview Questions</b> What is a stakeholder? What are stakeholders in this context?	<b>Actual Interview Questions</b> How do leaders engage stakeholders? What do you think stakeholder engagement is or should be?
<b>Cross-boundary Interview Questions</b>		

These questions were not specific to the concepts of wicked problems, stakeholders or stakeholder engagement but crossed the boundaries between those key concepts.

**Primary Cross-boundary Interview Questions**

What, if anything, is the role of stakeholder engagement in the context of a wicked problem?  
 What is the relationship between the different elements of stakeholder engagement and wicked problems?  
 Based on these insights, how could stakeholder engagement be improved in the context of wicked problems?

**Actual Cross-boundary Interview Questions**

Is it possible to be helpful without being powerful?  
 Why do you think wicked problems matter?  
 Can it (stakeholder engagement) happen without somebody actually having that responsibility?  
 Do you have a perspective on the systemic nature of wicked problems?  
 If we could effectively engage stakeholders, what would they do?  
 So if we just focus on resources for a moment, what sort of resources do people need to have to take ownership?

The complete interview guide, built on this structure, is included in Appendix 8.1. Since the interviews were semi-structured, strict adherence to these questions was not a requirement. Conversations with participants were generally initiated using one of the primary questions and then probed further using questions conceived *in situ* (Saunders *et al.*, 2011: 320). These questions related to participant responses and were exploratory in nature. The actual questions asked of the participants are listed in Appendix 8.7.

*4.4.1.2 Focus Group Instrument Development*

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of the focus group interview to achieving the aim of the research.

**Extract from Table 3 Summary of Research Project (Duplicated)**

Aim and Objectives	Research Questions	Research Concepts and Activities
<p><b>RO3</b></p> <p>Review the proposed sense-making framework for coherence and application to improving stakeholder engagement.</p>	<p><b>SRQ4</b></p> <p>How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>	<p>Focus group interviews</p> <p>Focus group analysis.</p> <p>Recommendations.</p>

The original research plan was to use the same instrument for the focus group. However, the purpose of the group changed, so the data collection approach was altered. Only two interview questions were asked. The first was a compound question and was applied in three rounds to wicked problems, stakeholders and stakeholder engagement, respectively 1) Do you have any critiques? Do you feel there's anything missing? Do you feel that anything is wrong with what you have seen in this brief overview? 2) Ideally, the focus now is on the whole framework. How does this help us to improve stakeholder engagement?

The researcher planned to ask the following question between the two cited above: What do you feel is of value in the framework? However, participants spontaneously identified what they valued in the sense-making framework without being asked, so the question became redundant.

#### **4.4.2 Ethical Clearance**

The policies of the Da Vinci Institute for Technology Management (Pty) Ltd. require an application for ethical clearance (Da Vinci Institute, 2010). The ethical clearance application was submitted on 26 June 2020 (Ritchie & Lewis, 2003: 63; Saunders *et al.*, 2011: 184), and notice of ethical clearance was received on 29 June 2020, valid until 2 June 2022. The notice of ethical clearance is included in Appendix 0.

All participants received an invitation to participate in the research and were required to acknowledge informed consent (Ritchie & Lewis, 2003: 66-67). The invitation to participate is included in Appendix **Error! Reference source not found.**, and the consent response in Appendix 0.

The invitation provided background to the research, explained what was expected of participants, advised them of their rights and the consequences of participation, explained how the data would be collected, used and stored and provided contact details for any enquiries (Saunders *et al.*, 2011: 191). It further advised participants that the interviews would be recorded and professionally transcribed as well as how these records would be stored and ultimately destroyed (Saunders *et al.*, 2011: 188).

This section has explained the impact of the qualitative research principles, outlined in Chapter 1, on how the study was conducted, and the design and methodology choices. In the next sub-section, the researcher will explain how qualitative sampling methods were applied in the study.

#### **4.4.3 Applying Qualitative Sampling Methods**

In Chapter 1, the qualitative sampling methods which apply to this study were introduced, and it was established that qualitative data are usually collected from small purposive sample groups (Saunders *et al.*, 2011: 212, 213), selected on the basis of their ability to contribute to answering the research questions (Ritchie & Lewis, 2003: 78; Saunders *et al.*, 2011: 213, 237,

241). Participants were selected by means of purposive and snowball methods, which are non-representative, non-probability sampling techniques (Saunders *et al.*, 2011: 233, 236).

The sampling frame (Salazar *et al.*, 2015: 152; Saunders *et al.*, 2011: 233) was difficult to establish for this study, as Salazar *et al.* (2015: 150) predicted. Participants were required to provide data to answer the research questions (Salazar *et al.*, 2015: 152; Saunders *et al.*, 2011: 233). It was difficult to determine who might have the relevant knowledge, and the sampling frame was established as being senior leaders involved in the management of strategy, risk, environment, technology or innovation, ideally with postgraduate research experience.

Initially, individual interview participants were selected purposively based on these criteria. Some of the early participants seemed ill-equipped to answer the research questions. Those who seemed better equipped tended to be working directly in the context of wicked problems. At this point, more relevant participants were actively sought. Some of these came through snowball sampling introduced by Participant 4 (P4).

For the focus group, participants were selected purposively (Saunders *et al.*, 2011: 236) based on their known experience working directly with wicked problems. A secondary consideration was postgraduate research experience. In retrospect, the criteria for the focus group were better aligned with the requirements of the study. If the study were conducted again, an alternative sampling frame (Salazar *et al.*, 2015: 152; Saunders *et al.*, 2011: 233) would be leaders or academics working directly in the context of wicked problems. All participants still contributed valuable and relevant insights even if the criteria for selection may not have been perfectly suited to the study.

The number of participants selected was based on guidelines provided by Braun and Clarke (2021), introduced in Chapter 1. An initial estimate was that ten individual participants would be a reasonable sample size. Data analysis proceeded after the ten interviews had been conducted, and the data yielded high levels of conceptual depth and diversity. Themes and sub-themes had begun emerging, and additional interviews appeared likely to offer only deeper levels of granularity than were required for the study. The researcher was satisfied that the data yielded sufficient understanding to build theory, so she decided not to conduct any further individual interviews (Braun & Clarke, 2021).

The focus group was convened with a very tight time constraint after the analysis was concluded and the sense-making framework developed. However, the quality of the participants in this group and depth of diversity was high, and valuable data were generated to critique the sense-making framework and recommend its application to improve stakeholder engagement in the context of wicked problems (Braun & Clarke, 2021).



**Table 20** outlines the list of participants interviewed, their expertise, how each was selected, and their highest level of education. P1 to P10 participated in individual interviews. PF11 to PF16 participated in the focus group interview.

**Table 20 Participant Analysis**

<i>Identifier</i>	<i>Expertise</i>	<i>Selection</i>	<i>Education</i>
P1	Senior marketer engaging stakeholders across organisations for African technology initiatives.	Snowball. Referral from P4. Based in South Africa.	Technical Diploma.
P2	Sustainable finance and climate change strategist working in a multinational financial institution in Europe.	Purposive. Business associate. Based in Europe.	Master of Public Affairs.
P3	International business development specialist working to facilitate business collaborations.	Purposive. Business associate. Based in South Africa.	Doctor of Business Administration.
P4	Global complexity specialist and CEO.	Purposive. Business associate. Based in South Africa.	Bachelor of Science.
P5	Head of brand for multinational ICT company.	Purposive. Referral from a business associate. Based in Europe.	Bachelor of Communications.
P6	CEO for a non-profit organisation.	Purposive. Business associate. Based in South Africa.	Doctor of Education.
P7	Ecologist with experience in large-scale ecological transformation projects.	Snowball. Referral from P4. Based in South Africa.	Doctor of Veterinary Science.
P8	Anthropologist, futurist and researcher.	Snowball. Referral from P4. Based in South Africa.	Master of Anthropology.

P9	Consultant working to promote financial inclusion in Africa.	Event speaker. Based in Africa.	PhD in Public & Development Management
P10	CIO in public service.	Purposive. Business associate. Based in the UK.	Master of Philosophy in Knowledge Management.
PF11	Strategic advisor for NQF, RPL and education, training and skills development. Retired from senior public service position in the education sector.	Purposive. Business associate. Based in South Africa	PhD in the Management of Technology and Innovation.
PF12	Executive fundraiser with deep experience in corporate and non-profit sectors.	Purposive. Business associate. Based in the UK.	MA Honours in History.
PF13	Millennial consultant working in entrepreneurial development.	Purposive. Business associate. Based in South Africa.	Master of Leadership and Management.
PF14	Retired Organisational Development executive, now working in an NPO environment in the educational sector.	Purposive. Business associate. Based in South Africa.	National Diploma in Personnel Management.
PF15	Senior expert in global regulatory, public & government affairs in the biotechnology, nutrition & health sector.	Purposive. Business associate. Based in Europe.	Doctor of Natural Sciences.
PF16	Global speaker and blockchain expert currently focused on beauty, fashion and food supply chains.	Purposive. Business associate. Based in South Africa.	Bachelor of Media and Communications.

The formal approaches to all potential participants were via email (Saunders *et al.*, 2011: 241), accompanied by 1) an invitation to participate (Appendix 0) outlining the aim of the study, the criteria for participation, the expectations of participants, the rights and privileges of participants (Saunders *et al.*, 2011: 70, 117, 185, 186) and 2) a consent form (Appendix 8.5). An Outlook invitation was also sent to each participant to schedule an interview (Saunders *et al.*, 2011: 241). No objections were received to the study or to the research methodology.

This section has explained the application of the sampling principles, outlined in Chapter 1, to how the study was conducted and the design and methodology choices. In the next subsection, the researcher will explain how data collection methods were applied in the study.

#### 4.4.4 Applying Qualitative Data Collection

In Chapter 1, the data collection methods applicable to this study were introduced, and it was established that qualitative data is collected to enable the aim and objectives of the research to be achieved through answering the research questions (Saunders *et al.*, 2011: 318). Data were collected and triangulated by means of a literature review, individual interviews and a focus group (Ritchie & Lewis, 2003: 56; Saunders *et al.*, 2011; 140). The application of theory in the literature review was presented in Chapter 2.

Due to the constraints imposed by Covid-19 restrictions and geography, both the individual interviews and the focus group were conducted online, using either Zoom or Teams as a platform (Saunders *et al.*, 2011: 21). Individual interviews were of approximately one-hour duration and conducted over a two-month period. A complete list of actual questions posed to individual participants is included in Appendix 0.

All participants signed consent (Saunders *et al.*, 2011: 188), and all interviews were recorded on the researcher's computer and cellular phone and were subsequently professionally transcribed (Ritchie & Lewis, 2003: 142; Saunders *et al.*, 2011: 321). The researcher took notes so that she could pick up on points to be probed further without interrupting the participant's flow of thought (Ritchie & Lewis, 2003: 142; Saunders *et al.*, 2011: 344). A sample of the consent invitation and response document is included in Appendix 8.5 and Appendix 8.6, respectively. The interview guide is in Appendix 8.1.

The interview process in both the individual and focus group discussion was guided by steps suggested by Ritchie and Lewis (2003: 176–180): 1) Setting the scene and contracting. 2) Personal introductions. 3) Initial question. 4) Exploration, probing and discussion. 5) Concluding the discussions. Steps 3) and 4) were repeated as required before the conclusion.

The rationale and process for the development of the research instruments used in the individual and focus group interviews were explained in sub-section 4.4.1.1. The objectives and research questions which informed the development of the research instrument also informed the interview process. The researcher is also a research instrument in a qualitative research interview, as Ritchie and Lewis (2003: 142-143) affirmed. The success of the interviews in this study therefore depended on interviewing skills, such as those listed in **Table 21**.

#### **Table 21 Interviewing Skills**

(Ritchie & Lewis, 2003: 142, 153-161; Saunders *et al.*, 2011: 332).

Establish rapport.	Phrase questions clearly.
Use a neutral tone of voice.	Avoid leading questions.
Avoid long, combination questions.	Reduce technical terminology.
Build up to more sensitive questions.	Practise good listening.

Summarise to allow the interviewee to affirm or correct interpretation.	Be efficient and well-prepared.
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As evidence of the application of these principles, P1 commented on the rapport in the interview “This was such fun. Loved it”. Listening and summarising principles were demonstrated when the researcher asked P9, “I’m just going to connect concepts right now that you’ve mentioned. So you talked about the spiral, you talked about the trickster. We talked about wicked problems, and we’ve talked about a walking song. What might that look like?”

In another interaction with the same participant, who had explained the concept of liminality and related a narrative to illustrate the concept, the researcher summarised

“This is going out a little bit on a limb because I’m going to actually put some interpretation on what you’ve just – that story you’ve just told me. I asked you the question, how do you create the liminal space? The story that you told me for me illustrated a bunch of things that happened in that space. You were put into a different context, you were asked to take on a different role, you were given different input, you had different interactions, you heard different stories, you played with different ways of connecting the pieces and different ways of integrating and assimilating” (Researcher).

The participant answered, “It’s amazing how you’ve done that because I didn’t think of it like that. So yes, definitely. I think the only thing I would add is maybe even before the step of changing context, also just being aware of the context that you’re coming from”. The researcher was conscious that she was possibly leading and did not use this approach often. However, this interaction revealed a powerful conceptual insight and made sense of other responses from this participant.

As indicated in **Table 21**, the quality of data collected depends in part on the questions asked. The development of the research instrument was explained in sub-section 4.4.1. Additional questions were used to probe meaning during the interviews (Saunders *et al.*, 2011: 337). This question asked of P4 sought more information about emergence “Can you just expand on the word emergence for me, as a quality of these systems that you’ve spoken about?”. Curiosity about the participant’s reasons for saying that something would not work led to this interaction and question asked of P9 “And so in contrast, your perspective is that in the world, certainly in which you operate, that probably wouldn’t work. That’s what I’m hearing you saying. Maybe tell me a little bit more about why you say that?”. Another quest for clarity led to the question, “What do you think stakeholder engagement is or should be?” asked of P1.

The focus group conversation involved six participants and lasted two hours. In addition to answering the interview questions, participants had the opportunity to question, clarify and comment on the contributions of others, resulting in deeper and more considered data. The

focus group interview lasted two hours, and the actual questions posed to focus group participants have been included in Appendix 8.11.

The researcher emailed all the focus group participants an information document prior to the focus group meeting, and this has been included in Appendix 8.10. The group meeting commenced with each person being invited to introduce themselves, and an overview of the information document was provided. The overview had to be repeated when two latecomers joined the group, and the researcher used this time to give other participants a comfort break.

After the introductions, the first interview question was asked of one member of the group. Once that person had responded, each subsequent member of the focus group had the opportunity to respond to the question or to what had been said by the previous participant/s. The same question was asked in respect of the three concepts of wicked problems, stakeholders and stakeholder engagement. Thereafter the second question was asked, and responses were invited in the same way. Where necessary, the researcher explained some of the concepts in the sense-making framework to clarify meaning.

This group interview format helped to balance and integrate the conversation, allowing for equal contribution, managing dominant participants, encouraging quieter participants, avoiding overlapping conversations, allowing for linking of concepts, exploring divergence and challenging conventions (Ritchie & Lewis, 2003: 182-184). During the process, participants reinforced and complemented insights from others, especially regarding stakeholder power, the importance of trust-building and the value of shared knowledge.

This section has explained what impact the data collection principles, outlined in Chapter 1, had on how the study was conducted, and the design and methodology choices. In the next sub-section, an explanation will be given of how data analysis methods were applied.

#### **4.4.5 Applying Qualitative Data Analysis**

In Chapter 1, the applicable data analysis methods were introduced, and it was explained that qualitative data analysis translates raw field data into a coherent structure (Ritchie and Lewis, 2003: 213). In-depth, emergent qualitative analysis was conducted (Ritchie & Lewis, 2003: 5, 21) with the aid of ATLAS.ti, a CAQDAS solution (Saunders *et al.*, 2011: 493).

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of data analysis to achieving the aim of the research.

#### **Extract from Table 3 Summary of Research Project (Duplicated)**

Aim and Objectives	Research Questions	Research Concepts and Activities
RO2	SRQ3	Individual interviews analysis.

Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.	How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?	Sense-making framework.
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As introduced in Chapter 1, theory was derived from raw participant data through qualitative data analysis. The outcomes are rich, thick descriptions aligned with the research concepts selected for the study, summarised in section 1.9. The data analysis process focused on answering the third secondary research question, which could be broken down as indicated in **Table 1Table 22**.

**Table 22 Framing the Analysis of the Data**

<b>RO2</b>		
Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.		
<b>SRQ3</b>		
How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?		
<b>Data Analysis Tertiary Question 1 (DATQ1)</b>	<b>Data Analysis Tertiary Question 2 (DATQ2)</b>	<b>Data Analysis Tertiary Question 3 (DATQ3)</b>
How could the concept of wicked problems be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?	How could the concept of stakeholders be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?	How could the concept of stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?

The formal data analysis phase of the research technically followed data collection, but informal analysis commenced much earlier (Saunders *et al.*, 2011: 338, 488). Data from the literature review was appraised during the development of the conceptual framework. Throughout the study, analysis occurred as the researcher engaged in an on-going dialogue with the participant responses and with herself, constantly questioning and probing meaning,

evaluating and interpreting not only what was said directly but what was implied and suggested (Saunders *et al.*, 2011: 488).

During the semi-structured interviews, participant responses were analysed so that questions could be tailored to more deeply explore the information they provided (Cresswell, 2007: 19; Saunders *et al.*, 2011: 320). An example was provided in the interview with P8, who likened a wicked problem to a trickster figure. A deeper meaning was sought with the question, "Tell me about the trickster figure". Once the participant had explained the metaphor of the trickster, P8 could be asked to justify why a wicked problem may be like a trickster.

Formal data analysis commenced with professional transcription of all the individual interviews (Saunders *et al.*, 2011: 485). Once transcription had been completed, the researcher cleaned and anonymised the transcripts and uploaded them into ATLAS.ti, a cloud-based CAQDAS platform (Saunders *et al.*, 2011: 514). This programme provided a data management tool to assist with coding and location of data, to aid the generation of new knowledge from participant responses, to increase transparency and to bring coherence (Saunders *et al.*, 2011: 480, 481, 485, 514).

As Ritchie and Lewis (2003:213) describe, the analytical process involves conceptual thinking, the ability to link and nest concepts, the challenge of gaps and incoherencies and movement between levels of abstraction. Applying these skills enabled the development of a thematic framework, a matrix used to organise the data thematically (Ritchie & Lewis 2003: 220).

The formal data analysis occurred over four rounds, each building iteratively on the insight developed in the previous round. A variety of coding approaches were used, as introduced in Chapter 1. Ultimately all the fragments were coded and the codes clustered into sub-themes, sub-themes into themes, and themes into meta-themes. Whilst the software allowed for codes to be assigned to categories, the researcher found it easiest to cluster the codes by adding prefixes to revise codes, such that the codes ended up in the following format: Meta-theme/ Theme/ Sub-theme/ Code.

In the first round, a number of different coding approaches were used, even though this was intuitive, at the time, as the researcher was unaware of these coding types. Simultaneous coding was applied, assigning multiple codes to many of the data fragments which were relevant to multiple concepts. With a primary intention to minimise bias, *in vivo* coding was frequently used and involved naming codes with the same wording used by participants. Descriptive coding involved using short phrases or other words to develop the code (Saldaña, 2013: 261-268).

The first step in the analysis of the participant data required a highly detailed selection and codification of all the significant observations and comments made by research participants. The selection of passages involved fragmentation and interpretation of the transcripts and ignoring text which had no bearing on the research problem. However, the full original text

was retained and could easily be referenced for the later narrative structuring of the data (Saunders *et al.*, 2011: 491, 497).

The codes assigned to the data fragments in ATLAS.ti emerged from the participant data, guided by the research purpose, questions, and objectives and were informed by the theory uncovered in the literature review and developed in the conceptual framework (Saunders *et al.*, 2011: 492). They included terms lifted directly from the transcripts, words used in the literature and additional interpretive and linking terms assigned by the researcher (Saunders *et al.*, 2011: 493).

In addition to these initial coding approaches, the researcher intended a focused coding approach that was planned for later in the process. Where codes or themes were obviously relevant and apparent in the first round, they were assigned immediately. However, the majority of the codes at the end of the first cycle were not aligned using that structure. The provisional codes for the focused coding were based on the conceptual framework and included emotion codes related to the experience of stakeholder engagement. Evaluation coding was also used to distinguish concepts which represented effective stakeholder engagement and those which represented lack of engagement or ineffective engagement practices (Saldaña, 2013: 261-268).

In the second round, the data fragments were re-examined for possible codes that might have been missed, still using *in vivo* and descriptive coding. However, focused coding was deliberately added this time, referencing the conceptual framework, to add relevant prefixes, both to new codes and to codes assigned in the first round. This approach aligned with the eclectic or blended coding approach recommended by Saldaña (2013: 59) for the second cycle.

The research objectives, literature review, conceptual framework and interview questions suggested an initial scaffold for coding the data. The following prefixes were used to identify codes which clearly related to the theoretical concepts in the scaffold. These initial prefixes were 1) WP – Wicked problems, 2) SE – Stakeholder engagement, 3) S - Stakeholders, 4) E - Engagement, and 5) NSE – Not stakeholder engagement.

Once all the transcripts were codified, ATLAS.ti allowed oversight of all the codes assigned to the data, enabling easier clustering of related concepts to identify, clarify and alter dominant themes and patterns. The third round used pattern coding and involved identifying new themes and sub-themes for codes which had not been assigned to existing themes or sub-themes, eliminating codes which did not seem appropriate and deciding what to do with outliers (Saunders *et al.*, 2011: 436, 488, 493, 495, 506).

#### 4.4.5.1 *Dealing with Outliers and Final Round of Coding*

Outliers fell into three categories. The first were concepts that had no material bearing on the research questions or which made no sense. This comment from P3 serves as an example: “I’m going to look at it more from an approach, unlike from a stakeholder approach. I would



say more if you're looking at the character it speaks of – more I would look at the stakeholder approach or the character emphasis responsibility". These outliers were excluded from the findings.

The second form was not a true outlier but could be construed to be a biased observation by the researcher, who had a personal interest in facilitation methods. She coded a number of comments which hinted at possible facilitation approaches for engagements. On the one hand, these contributions were outside of the scope of the study. On the other, they were influenced by the researcher's personal interests and interpretations. The interview with P9 provided an example. The participant stated, "I remember once after one social connection, my brother said, you know, you lose people when you talk in that way because that's not their world, they can't relate to that". The researcher coded the fragment "SE Facilitation Relating". Her thinking was that a facilitator would need to assist stakeholders in relating to each other – to find ways to find common ground. Whilst this may be true, it is not what the participant was saying and could be viewed as a highly subjective interpretation. These outliers were excluded from the findings but informed the recommendations in Chapter 6.

The third form of outlier included codes which seemed to be relevant but which could not obviously be assigned to the emerging themes. A good example was provided in this comment by P2 "It's everything exchange, I think it can be information but leading to action, it can be feedback loops; it can be an exchange on the process to follow and procedures on governance of an exchange itself; sort of an exchange on exchange". One of the codes assigned to this comment was "SE Interaction Process". Other codes relating to the theme of *Stakeholder Interaction* had been assigned to sub-themes of *Interaction Connection*, *Interaction Intention* or *Interaction Action*. These three activities of interaction probably combine to create an interaction process. However, this was the only reference to that idea, and it was noted as an outlier but not elaborated on further in the findings.

The fourth and final review of the codes was a last critical clean-up of all the coding. As the coding process progressed, its inherent subjectivity became obvious. The researcher clearly had the power to choose how to code and theme the data, and thus a final detailed examination and questioning of the decisions made was warranted (Saunders *et al.*, 2011: 496). **Table 38** in Appendix 8.8 provides a sample of the final coding for one of the codes in the sub-theme of Action Process. The progression from the first round of coding to the final version is illustrated using a data fragment from P8 in **Table 23**. Two samples of the data set are included in **Table 40** in Appendix 8.12 and **Table 41** in Appendix 8.13.

**Table 23 Sample Coding Progression**

Data Fragment	First round codes	Final codes
"I think the key thing for me is that we tend to think that	Chosen boundaries, Honour boundaries,	SE Process Collaborative Boundaries, Stakeholders Choice Boundaries, Stakeholders Complexity Intellectual Boundaries,

these problems honour our chosen boundaries” (P8).	WP.	Stakeholders Complexity Spiritual Beliefs, Stakeholders Conflict Assumptions, WP Complexity Cross Boundaries.
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Once coding was complete, preparation began to document the findings in a narrative description of the sense-making framework in section 5.5. By this time, the researcher was very familiar with her topic, and it was important to pay particular attention to communicating with an audience who had not been involved in the research process (Saunders *et al.*, 2011: 526).

Although the final documentation was concluded after data analysis, writing commenced at the very beginning of the project and facilitated deep thinking and review throughout the process, guided by the academic supervisor and with many extensive revisions of every chapter (Saunders *et al.*, 2011: 528, 530, 548).

In the chapter thus far, the research process has been outlined, and the research design and methodology delineated. Before concluding this chapter, the steps taken to increase the credibility of this qualitative study will be outlined.

#### 4.5 Credibility of the Research

The credibility of quantitative studies is subject to relatively unambiguous tests of generalisability, validity and reliability. These are not easily applicable to qualitative research since they tend to depend on the representativeness of the sample and statistical evaluations, which cannot be replicated in qualitative studies (Saunders *et al.*, 2011: 327). Nonetheless, establishing academic soundness is vital for research to be deemed valuable (Saunders *et al.*, 2011: 328). **Table 24** shows the approaches used to increase the credibility of this study.

**Table 24 Methods Applied to Increase Credibility**

Data collection and analysis were triangulated as recommended by Ritchie and Lewis (2003: 275). This included a literature review, development of a conceptual framework, data collection from participants and analysis of this data.
High-quality participants were selected as recommended by Saunders <i>et al.</i> (2011: 204).
A robust process for data capture was provided as recommended by Saunders <i>et al.</i> (2011: 373).
Data were systematically interpreted and comprehensively analysed as recommended by Ritchie and Lewis (2003: 274).
The data analysis process was transparent as recommended by Ritchie and Lewis (2003: 199).
Findings were presented in a way that is congruent with the data and subject to scrutiny as recommended by Saunders <i>et al.</i> (2011: 156).
Rich verbatim accounts were included from the field interviews as recommended by Ritchie and Lewis, (2003: 312, 313) and Saunders <i>et al.</i> (2011: 535).

Comments were invited from the supervisor as recommended by Ritchie and Lewis (2003: 211).
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Participant feedback was invited as recommended by Saunders <i>et al.</i> (2011: 78).
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Noble and Smith (2015) propose specific assessment criteria for ensuring academic rigour and trustworthiness in qualitative studies. They argue that researchers should ensure 1) truth value, 2) consistency, 3) neutrality and 4) applicability. These principles are different from, but similar to, quantitative measures of credibility. Truth value is comparable to validity, consistency and neutrality are similar to reliability, and the applicability of the work will approximate theoretical generalisability (Noble & Smith, 2015).

The next sub-sections explain the application of these qualitative credibility constructs in this research.

#### **4.5.1 Truth Value**

The truth value of a qualitative study depends on transparency with respect to potential personal researcher bias and the accuracy with which she reports participant perspectives (Noble & Smith, 2015).

Great effort has been made to clearly state conscious potential biases. As an example, the introductory chapter clearly delineates relativist ontological perspectives. A preference is declared for the SPISE framing of personhood, which is evident in the conceptual framework and which influences findings in data analysis. Theoretical substantiation was, however, provided for this perspective.

Both the conceptual framework and the sense-making framework were presented as useful frames of reference, not as empirical truths. This indicates a preference for these frames, but the inclusion of other frames in the literature review indicated that these other perspectives were also useful. The conceptual and sense-making frameworks were offered as viable alternatives to existing theory, acknowledging that no theoretical framework can accurately depict reality (Capra & Luisi, 2014: 5; Mateus, 2017).

Bias was reduced when analysing field data by initially coding without direct reference to the conceptual framework. The framework was introduced into the analysis process in the second and third rounds of coding. The changes introduced to the conceptual framework to create the sense-making framework following the analysis of field data are evidence of commitment to academic integrity. Robust documentation and referencing supported the proposals made.

Participants consulted have strong credentials aligned with the aim of the study. In the focus group interview, participants who work in the field of wicked problems were invited to critique the sense-making framework. Participants indicated that they had no criticisms but added their perspectives to the concepts highlighted in the framework. For example, PF11 highlighted the contemporary relevance of wicked problems as elucidated by Termeer *et al.*

(2019) and PF14 emphasised the importance of trust-building in the stakeholder engagement process.

#### **4.5.2 Consistency**

The consistency of a qualitative study depends on the trustworthiness of the methodology and decision-making (Noble & Smith, 2015).

The researcher's ontology and the epistemology, research design and methodology were all documented and are available for scrutiny. Choices have been explained and justified from both a personal perspective where relevant and from a theoretical perspective. Research practices are believed to have been consistent with the research concepts outlined in Chapters 1 and 4.

#### **4.5.3 Applicability**

The applicability of a qualitative study depends on whether the findings could be applied in other environments (Noble & Smith, 2015). The research findings have not been evaluated in another environment. However, they were presented to a focus group, who were invited to comment. Their observations have been included in Chapter 6. Ultimately the critics who could evaluate applicability would be the participants, the academic supervisor and the examiners. Their assessment will depend on how the data has been presented and the degree to which the research conclusions were a good representation of the data and make sense (Noble & Smith, 2015; Ritchie & Lewis, 2003: 273).

Applicability also suggests the potential usefulness of the study, an important consideration since the aim of the study was to propose a sense-making framework to improve stakeholder engagement in the context of wicked problems. Participants in the focus group were asked to comment on the potential usefulness of the findings and the sense-making framework. They indicated that the framework was applicable in their areas of practice and that it would add value. PF15 stated, "It's a pleasure to see your table. I think it really helps me to get my different things I'm daily enrolled with, in a kind of format." PF14 noted, "I think it's all here. And it can be dealt with upfront or during the process.",

#### **4.5.4 Neutrality**

The neutrality of a qualitative study depends on the extent to which the research has met the requirements for the first three measures of credibility stated above. It further requires that the researcher's impact on the study and the outcomes be clearly identified and distinguished from those of the participants (Noble & Smith, 2015).

All inputs, both from other researchers and from study participants, have been acknowledged and referenced. Decisions and choices have been clearly stated. The conceptual framework in Chapter 3 states choices made for the purposes of the study, and the researcher has explained in Chapter 5 the thematic choices made in respect of the sense-making framework.

Triangulation was originally applicable to quantitative studies, and some researchers question its validity in a qualitative environment (Ritchie & Lewis, 2003: 43). However, there seems to be agreement that it remains valid, albeit that it may be differently applied in a qualitative study. Whereas in a quantitative study, triangulation is used to verify results, in a qualitative study, it is used to extend understanding (Johnson, Adkins & Chavin, 2020; Ritchie & Lewis, 2003: 43). Triangulation involved a literature review, initial development of a conceptual framework, data collection from participants, analysis of this data, review of the emerging framework and on-going feedback from the academic supervisor (Ritchie & Lewis, 2003: 275). All these practices enriched the outputs of the study.

This sub-section has considered the credibility of the research explaining specific ways in which credibility was boosted in the study.

#### **4.6 Conclusion**

This chapter has explained the research design and methodology employed in this research project. It provided explanations of the challenges encountered, choices made by the researcher and examples of some of the research principles that were applied.

The application of the social constructivist/ interpretivist research paradigm to the study and the exploratory objectives were explained. The reasons for, and implications of, the qualitative methodology were explained, as was the inductive derivation of the sense-making framework. The research design provided a roadmap for the execution of the study, describing each of the phases followed to achieve the research aim and objectives and to answer the research question (Ritchie & Lewis, 2003: 2, 3, 5; Saunders *et al.*, 2011: 21).

This overview of the research process detailed the approach to the literature review, the development of the conceptual framework, the finalisation of the research instruments and the challenges which emerged in this regard. It further outlined the process and obstacles to gaining ethical clearance, the selection of research participants, the interview processes, how the data were analysed using the ATLAS.ti platform and the documentation of this research report.

The final section of this chapter discussed the challenges and approaches to ensuring the credibility of the research and explained the application of qualitative measures of credibility in the context of this study. Chapter 5, which follows, presents the research findings.

## 5 RESEARCH FINDINGS

### 5.1 Introduction

Chapter 4 delineated the research design and methodology, including a detailed outline of the data analysis process. Data were collected in ten individual interviews and a focus group of six participants selected by using non-probability, purposive and snowball sampling techniques. The qualitative data analysis process was conducted over four rounds using Atlas.ti as a supportive tool. In this chapter, participants have been acknowledged using the identifiers assigned in Chapter 4.

In section 1.9, Error! Reference source not found. summarised the structure of the research project. An extract from **Table 3** is duplicated below to illustrate the contribution of data analysis and the sense-making framework to achieving the aim of the research.

#### Extract from Table 3 Summary of Research Project (Duplicated)

Aim and Objectives	Research Questions	Research Concepts and Activities
<p><b>RO2</b></p> <p>Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.</p>	<p><b>SRQ3</b></p> <p>How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>	<p>Individual interviews analysis.</p> <p>Sense-making framework.</p>

This chapter presents the findings from the individual interviews and the sense-making framework. The findings answer the third secondary research question, which can be broken down as indicated in

**Table 25.** The fourth secondary research question is further answered in Chapter 6, as the findings from the focus group serve to critique the sense-making framework, not contribute to developing it.

**Table 25 Framing the Sense-making Framework**

<p><b>RO2</b></p> <p>Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.</p>		
<p><b>SRQ3</b></p> <p>How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>		
<p><b>Sense-making Framework Tertiary Question 1 (SFTQ1)</b></p> <p>How could the concept of wicked problems be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>	<p><b>Sense-making Framework Tertiary Question 2 (SFTQ2)</b></p> <p>How could the concept of stakeholders be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>	<p><b>Sense-making Framework Tertiary Question 3 (SFTQ3)</b></p> <p>How could the concept of stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>

The aim of this research was to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems. That sense-making framework is delineated in the remaining sections of this chapter. The narrative argument is accompanied by a tabular summary, which is constructed systematically as propositions are presented. The sense-making framework is also contrasted with the conceptual framework developed in Chapter 3 and duplicated here for reference. A complete list of definitions for all the sub-themes, themes and meta-themes in the sense-making framework is included in **Table 39** in Appendix 8.9.

**Table 13 The Conceptual Framework (Duplicated)**

Alternative Framing for Wicked Problems		
<p><b>Wicked problems are contained in problem ecologies</b></p> <p>Wicked problems are systemically connected to the problem ecologies in which they arise.                  Problem ecologies are characterised by complexity, change and conflict.</p>		
<p>Problem ecologies are systemically complex.</p>	<p>Problem ecologies are constantly changing.</p>	<p>Problem ecologies are fraught with conflict.</p>

**Demands of wicked problems**

Wicked problems present stakeholders with demands which may impact their engagement.

Alternative Framing for Stakeholders				
<p style="text-align: center;"><b>Stakeholders are whole, five-fold beings</b></p> <p>Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.</p>				
<p style="text-align: center;"><b>Stakeholders are individual or collective agents, animate or inanimate</b></p> <p>Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.</p>				
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.	
Alternative Framing for Stakeholder Engagement				
<p style="text-align: center;"><b>Five forms of stakeholder engagement</b></p> <p>Stakeholder engagement describes five distinct but interrelated concepts.</p>				
Stakeholder interactions	Stakeholder investment	Leading stakeholders	Stakeholder experience	Stakeholder engagement process

In the table above, concepts highlighted in blue are similarly portrayed in the sense-making framework, although the nomenclature or positioning in the framework may have changed slightly. Concepts highlighted in red are reframed in the sense-making framework. Concepts highlighted in yellow have been excluded from the sense-making framework because they have been included in other themes. Other than the changes in nomenclature or slight shifts in the structure, none of the findings from participant data negated any material elements of the conceptual framework. However, the findings augmented the conceptual framework significantly, as evidenced in this chapter.

Prior to drafting the final version of the sense-making framework presented in this chapter, a meta-theme had been included called *Wicked Ecologies*, which clustered *Wicked Problems* and *Stakeholders* and which were defined as systems of *Stakeholders* and the *Wicked Problems* with which they are interconnected. The term ‘problem ecology’ has been used to describe the context of *Wicked Problems* (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) and an ecology was described by Griffiths (2020) as an “interconnected series of parts in which the order is unfixed and reworked in accordance with freedom of choice exercised by its actants”. To thus describe a system comprised of *Stakeholders* and a *Wicked Problem* as a *Wicked Ecology* seems reasonable.



PF14 supported this frame, stating, "I like the fact that you're talking about an ecology. The problem is there, the stakeholders there, but it forms an ecology, which almost has a life of its own, and comes out of the interaction between all the parties.". The meta-theme was omitted from the final version of the sense-making framework as it was not congruent with the research questions. However, this is still an interesting concept, mentioned since it was included when the focus group evaluated the framework. The study findings are presented to align with three meta-themes established in Objective 3: *Wicked Problems, Stakeholders and Stakeholder Engagement*.

## 5.2 Meta-theme 1 - Wicked Problems

The tertiary sense-making framework question (SFTQ1) explored in this section is:

How could the concept of wicked problems be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?

Answering this question contributes to answering the third secondary research question.

In section 3.6, **Table 13** summarised the conceptual framework developed in that chapter. An extract from **Table 13** is duplicated below for ease of reference, illustrating the alternative framing of wicked problems in the conceptual framework. Concepts highlighted in blue are similarly portrayed in the sense-making framework, although the nomenclature may have changed slightly. Concepts highlighted in red are reframed in the sense-making framework.

### Extract from Table 13 The Conceptual Framework (Duplicated)

Alternative Framing for Wicked Problems		
<b>Wicked problems are contained in problem ecologies</b>		
Wicked problems are systemically connected to the problem ecologies in which they arise. Problem ecologies are characterised by complexity, change and conflict.		
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.	Problem ecologies are fraught with conflict.
<b>Demands of wicked problems</b>		
Wicked problems present stakeholders with demands which may impact their engagement.		

The sense-making framework proposes that *Wicked Problems* are highly impactful, intimidating, illusive and intractable challenges characterised by complexity, change and conflict, which present imperatives for *Stakeholders* to influence. This proposition is supported by perspectives of research participants. Two themes and nine sub-themes support this proposition.

**Table 26** presents the first meta-theme of the sense-making framework. A narrative description follows this summary. Concepts highlighted in blue were similarly portrayed in the

conceptual framework. Concepts highlighted in red are reframed in the sense-making framework. Concepts highlighted in green were not represented in the conceptual framework.

**Table 26 The Emerging Sense-making Framework A**

Meta-theme 1 - Wicked Problems		
Theme 1.1 - Problem Dynamics		
Sub-theme 1.1.1 Problem Complexity	Sub-theme 1.1.2 Problem Change	Sub-theme 1.1.3 Problem Conflict
Theme 1.2 - Problem Demands		
Sub-theme 1.2.1 Impactful Problem	Sub-theme 1.2.2 Imperative Problem	Sub-theme 1.2.3 Intimidating Problem
Sub-theme 1.2.4 Illusive Problem	Sub-theme 1.2.5 Intractable Problem	Sub-theme 1.2.6 Influenceable Problem

### 5.2.1 Theme 1.1 – Problem Dynamics

The sense-making framework proposes that *Problem Dynamics* vest in the systemic connectedness and inseparability of *Wicked Problems* from the problem ecologies in which they arise. Three dominant dynamics of these problems are complexity, change and conflict. This proposition is supported by perspectives of research participants.

The conceptual framework proposed that the problem ecologies which contain wicked problems were also characterised by complexity, change and conflict. Different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341), and as P1 observed, "those patterns, those fractal patterns filter all the way down". P6 described the same phenomenon "you have little microcosms everywhere of the things that you're talking about at a bigger scale". Based on this fractal principle, the propositions in the conceptual framework were generally congruent with the findings in the sense-making framework.

The sense-making framework proposes that *Wicked Problems* are characterised by three *Problem Dynamics: Problem Complexity, Problem Change* and *Problem Conflict*. These three sub-themes are presented in the next three sub-sections.

#### 5.2.1.1 Sub-Theme 1.1.1 – Problem Complexity

*Problem Complexity* describes the entangled, tightly knotted, clustered mass of difficulty, human and natural agents and their interactions which characterise *Wicked Problems*; a system of systems which can never be accurately conceptualised or analysed (Alford & Head,

2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), as described in section 2.5.

Whilst *Wicked Problems* may include elements of all the domains in the Cynefin Framework (Snowden *et al.*, 2020: 39), expounded in sub-section 1.5.2.1, they are generally considered to be especially complex (Craig, 2020). All participants except P1 labelled them as complex. P2, P4, P5, P7 and P8 indicated that they might also have complicated or explainable elements.

A *Wicked Problem* is “an entangled systemic pattern that exists across boundaries, that doesn’t fit into our categories, and that resists solution”, according to P4, who added, “I didn’t understand how complex and how entangled this is and so I made the wrong estimation of where that beginning and ending of the system or the problem sits.”. As P8 supported, “You need to look at it in context, you need to look at the people it affects, the system it operates in. It’s a whole ecosystem around it; you can’t just take that one little strand of the ecosystem and think that now you understand the problem.”.

*Wicked Problems* are inherently multi-variate, vast and multi-dimensional. P4 recommended that it has multiple interacting dynamic variables, adding that “it’s so big, it’s got so many dimensions”. They defy man-made boundaries and frameworks (P4; P8), and distinguishing the beginning and end of the problem is very difficult (P4).

Each *Wicked Problem* is a product of different interactions and combinations of social, technological, economic, biophysical and values drivers (P7) and collective choices (P4). As P2 pointed out, there are many known and unknown unknowns, and the elements of *Wicked Problems* are not all visible. However, the involvement of humans is clearly evident (P2; P7).

These complex *Wicked Problems* cannot be deconstructed and reconstructed (P4). Mastering a part of them does not mean you have mastered the way the whole fits together. As P4 stressed, “A complex system is different than the sum of its parts. There’s behaviours, there are aspects to that system that you can’t explain or can’t understand just by looking at the parts.”.

Even distinguishing complexity and change as distinct characteristics of a *Wicked Problem* seems to be problematic. Participants were observed to reference the two concepts as a dyad (P2; P4; P6; P7). The complex interconnectivity and boundary-crossing nature of the system seem to allow change to ripple through the system unpredictably (P4), supporting the theories referenced by P4 of Complex Adaptive Systems (Irwin *et al.*, 2015) or by P7 of Complex Dynamic Systems (Hiver, Al-Hoorie & Larsen-Freeman, 2021).

However, analysis of the research data supported the distinction of these two qualities of *Wicked Problems* whilst also demonstrating their interrelatedness. This is evidenced by the fact that 33 quotations were coded for Dynamic Change only, 132 were coded for Dynamic Complexity only, and 33 quotations were coded for both Dynamic Change and Dynamic

Complexity. The next sub-theme has presented findings in respect of the changing nature of *Wicked Problems*.

#### 5.2.1.2 Sub-Theme 1.1.2 – Problem Change

*Problem Change* describes the emergent, co-evolutionary (Waddock *et al.*, 2015), dynamic, uncertain (Dentoni *et al.*, 2018), and unstable (Burman *et al.*, 2017) nature of *Wicked Problems*.

*Wicked Problems* develop and evolve as systems that are always in motion, dynamic and shifting (Waddock *et al.*, 2015). P7 illustrated the impermanent and emergent nature of these systems, saying, "Well, because you're in a complex system and the context changes". He added, "It's just a question of whether the context changes slowly or fast, or which aspects are changing, but it's going to change."

P8 pointed out that *Wicked Problems* feel "like something that's constantly evolving or adapting or changing, like almost a shape-shifter kind of problem". P3 said that they are always in flux and are never completely created, and P2 added, "it also changes over time". Both past and future considerations have an impact on the present (P8; P9), and the problems are highly connected and sensitive to their starting conditions (P4).

The changing nature of *Wicked Problems* means that confinement and definition are both difficult (P8). They only temporarily achieve equilibrium, or what P4 termed "moments of stability". Any state of the system can only be viewed as a current condition with people constantly acting internally or externally (P1; P5; P7) to change the issue for better or worse at varying speeds (P7).

There will thus always be knowledge gaps, so *Stakeholders* need to reserve the right to change their minds (P4). In addition, the problem system itself is learning and responding to what happens to it (P4).

Whilst change in itself may be either positive or negative (English, 2018), there is a very real expectation within the *Wicked Problem* environment that *Wicked Problems* may cascade into bigger challenges, as observed by P2. Whilst a change may feel sudden, it may have been building over time. P4 explained, "it feels as if this ecosystem or this social system just changed radically overnight, but there was this slowly changing variable nobody was even thinking about".

The possibility of change in *Wicked Problems* provides hope for *Stakeholders*, but according to P4, positive change is dependent on the willingness and capacity of *Stakeholders* to change their thinking patterns, take up their agency and harness collective agency. These abilities will be discussed in sub-section 5.3.2.

What makes *Wicked Problems* especially difficult to navigate is their propensity to be conflictual. This finding is discussed in the next sub-theme.

### 5.2.1.3 Sub-Theme 1.1.3 – Problem Conflict

*Problem Conflict* describes the propensity of wicked problems to evince plural perspectives, cause tension, exacerbate differences (Head & Alford, 2015), confuse people (Rogers, Luton, Biggs, Biggs, Blignaut, Choles, Palmer & Tangwe, 2013), deepen power differentials (Dentoni *et al.*, 2018) and polarise decision-makers (Asoka, 2016).

As explained in sub-section 3.3.1.3, conflict is an inherent and inevitable feature of life (Vallacher *et al.*, 2013: 1). At its simplest, conflict is difference, a lack of sameness. Whilst the term is most frequently attributed to differences between people (Akhtar, Khan, Akhtar, Sahfiq & Tanveer, 2020), conflicting forces and tensions are found throughout nature and are evident to some extent in every interaction (Aloysius-Michaels, Sunday, Chukwuemeka, Chioma, Uchenna, & Elijah, 2020).

*Wicked Problems* are fraught with tension, opposing forces and conflict (P4). In fact, "part of their wickedness come from these almost opposing forces that exist. So there are competing priorities there and if we have different intents ... then conflict is going to arise" (P4). As P6 corroborated 'it can destroy relationships because it's a time of potential conflict, high conflict, opposing opinions".

Many of the conflicts which emerge in *Wicked Problems* are about human differences and the inability of people to effectively navigate and communicate around their differences (P9). P7 highlighted the significance of opposing assumptions, beliefs, priorities, values and efforts. Intentions, bias, ignorance and exclusion can also exacerbate differences, according to P4. Knowledge, opinions and perspectives are often contentious (P3; P6), and especially significant conflicts seem to involve issues of inequity, ownership, resource and power differentials (P1; P2; P6).

Whilst participants tended to focus on the conflicts rooted in humanity, non-human conflicts mentioned by participants include resource constraints, excessive workloads (P2; P5), contradictions, economic burdens (P3), shifting goalposts (P7), process bottlenecks and time limitations (P6). P6 expanded, observing that "often decisions are required at short notice, so you've got the time pressure. I don't think wicked problems always allow the luxury of time to contemplate and reflect and consult."

However, P4 argued for the advantage of diversity in tackling *Wicked Problems*, saying, "it should be really about diversity of perspectives and if we can bring our collective imagination to bear on these things, on these problems, what can shift?". P8 added, "this whole thing of multiple perspectives as being valuable just because if you're able to see things from different angles, you can I guess make more sense of it," and according to P1, if *Stakeholders* are willing, they "use their networks and privilege to open up access to resources".

### 5.2.2 Theme 1.2 – Problem Demands

The sense-making framework proposes that *Problem Demands* are the challenges that wicked problems pose to stakeholders, which may impact their engagement. Wicked problems are demanding because they are illusive, intractable, intimidating and impactful, present an imperative for action and are influenceable. This proposition is supported by perspectives of research participants.

The sense-making framework proposes that *Wicked Problems* present stakeholders with six *Problem Demands*: an *Illusive Problem*, an *Intractable Problem*, an *Intimidating Problem*, an *Impactful Problem*, an *Imperative Problem* and an *Influenceable Problem*. These six sub-themes are presented in the next six sub-sections.

#### 5.2.2.1 Sub-Theme 1.2.1 – Illusive Problem

The sense-making framework proposes that *Wicked Problems* are *Illusive Problems* with the propensity to go undetected, to be misunderstood or to be underestimated.

The original framing of *Wicked Problems* proposed that they cannot be precisely formulated (Rittel & Webber, 1973). These issues are difficult to define. As P8 observed, "I think it's probably something that is enigmatic, it's something that is difficult to confine or even define, it kind of evades any kind of structure or definition or any framework that you might necessarily have used in the past to address similar issues.". P6 supported this view, saying it "does not fit the norm". P2 used Artificial Intelligence as an example to explain that wicked problems elicit many "questions around who owns what data, how is data generated, what implications have our human relationship with technology".

*Stakeholders* don't have all the information when presented with *Wicked Problems*. P6 stated that "you may only have bits and pieces of information", and P4 contributed, "we're making decisions in the lack of sufficient evidence or sufficient information". Speaking of the biophysical facts in a problem context, P7 said, "those are a mystery in their own right, and they're relatively understandable".

*Wicked Problems* are also illusive because people don't see everything. This may be because of the size of these problems, as discussed in sub-section 5.2.2.3. It may also be that they are "something that they don't know about or have at least some level of understanding"(P2). Some of the "elements might or might not be fully visible, and the complex element means also that things keep changing, so there's a dynamic element to it as well" (P2).

Further to the real qualities of *Wicked Problems*, *Stakeholders* also tend not to take sufficient notice of them as P9 observed, "maybe we were fooling ourselves all the time thinking there were no such things as wicked problems". There are also "people who choose to ignore it" (P1). *Stakeholders* also can't see the future state of the problem, as P8 pointed out. "The future doesn't exist, so it's difficult to say that it's going to work out that way." (P8).

Even when *Stakeholders* acknowledge the presence of *Wicked Problems*, they tend to oversimplify them as P1 explained, "I think wicked problems are the ones that people mistakenly believe are easy to solve if we just got government behind it and we just had enough money, and we just did a big enough campaign we can fix it".

*Wicked Problems* are also easily disguised by social normalisation, acceptance and convention. P1, speaking about poverty, protested that "It's just such a horrible thing, and it's just become so accepted.". P8 provided an example of this social behaviour, observing.

"So I guess it's like the same with you know the saying, boys will be boys. It's almost saying okay, boys' behaviour and men's behaviour is acceptable, or considered normal by society because that's just how they're going to be, the male species, that's how they behave. So women should rather behave in a way that keeps themselves safe. Don't put yourself in a situation where you could apparently aggravate a man." (P8).

The illusive nature of *Wicked Problems* also occurs because complex systems can look stable although they are changing. As P7 observed, "It looks like it all works, but those are the precursors of a breakdown like any other complex system.". P10 used Covid19 as an example "Because the vaccine isn't the cure, they're finding that with this Indian variant now that a large percentage of the people that are ending up in hospital have been vaccinated twice already.". However, maybe, *Wicked Problems* "come from that space where sometimes you don't need to understand everything, or you don't need to explain things" (P8).

The next sub-theme explains the findings related to the intractable nature of *Wicked Problems*.

#### 5.2.2.2 Sub-Theme 1.2.2 – Intractable Problem

The sense-making framework proposes that *Wicked Problems* are *Intractable Problems* characterised by insolvability (Irwin *et al.*, 2015) and longevity (Hamby *et al.*, 2017).

*Wicked Problems* are generally considered to be unsolvable (Burman *et al.*, 2017; Dentoni *et al.*, 2018) or intractable. P8 said, "I just imagine something that's almost like this little trickster figure that avoids any kind of resolution", and P3 suggested that "the problem is so difficult or impossible to solve because it's incomplete, it contradicts changing requirements".

*Wicked Problems* are not solvable, because of their complexity (Alford & Head, 2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), propensity to change (Blignaut & Aronson, 2020; McMillan & Overall, 2015) and inherent conflicts (Bannink & Trommel, 2019; Carcasson & Sprain, 2016).

As P3 commented 'it was difficult or impossible to solve because it was complex, it was contradicting, it was changing'. P4 confirmed that it "resists solution". Conflict also makes resolution difficult, as P6 argued.

“A problem is wicked because it doesn’t have an easy solution, and often when you group people around the problem and you ask them to help you resolve that problem, they may have opposing views, and those opposing views may not be possible for you to align.” (P6).

As P9 asserted, a lack of political will or cultural shift can keep problems from being solved. P1 confirmed that there are some *Stakeholders* “who stand to benefit from it being perpetuated” and agreed when the researcher summarised another comment by asking, “Are you suggesting that wicked problems are systems designed to perpetuate power differentials and resource differentials?” (Researcher). P1 said, “No one is going to do anything about it because everyone is equally complicit”, and observed that although some organisations are mandated to solve these issues, if they were to succeed, then they would cease to be necessary.

There is no silver bullet or magic formula (P9), no one universal solution (P4). Ultimately they are long-term, no-win games, and *Stakeholders* need to learn to navigate their perpetuation, often over long periods of time (P1; P9). “Wicked problems often have what appear to be solutions but just create more of a problem.” (P10).

It should be noted that despite the theory and whether or not they believed that *Wicked Problems* were solvable, P2, P3 and P6 all spoke about solving these problems. P2 was not very familiar with the theory and stated, “you can solve it in different ways, but if we don't address it, it's just that, a problem”. P3 exhibited ambivalence, asserting that “the problem is so difficult or impossible to solve” and that “I'm going to identify my clear plan and action and create a strategy to solve that wicked problem.”. P6 was also not very familiar with the theory but stated, “you have to solve it from a blank slate”.

It might also be that this was a more natural way to speak about taking action in respect of problems. However, in line with the theory (Irwin *et al.*, 2015), P4 expressly and repeatedly stated that “it's an unsolvable problem”. She observed that “When somebody talks about solving a wicked problem, then they're in that linear cause and effect kind of a frame of mind.” (P4).

The intractability of *Wicked Problems* may contribute to the next sub-theme. *Wicked Problems* were also found to be intimidating.

#### 5.2.2.3 Sub-Theme 1.2.3 – Intimidating Problem

The sense-making framework proposes that *Wicked Problems* are *Intimidating Problems* with the propensity to frighten, overwhelm, paralyse and discourage (Termeer & Dewulf, 2019) *Stakeholders* or leave them feeling inadequate (Oncescu & Neufeld, 2019) or incapable (Yuliani, Adnan, Colfer & Indriatmoko, 2015).

P6 explained the risks associated with *Wicked Problems* as, “They often are associated with very high risks and so one can’t just ignore them because they have the potential to be rather



catastrophic in their impact.” and observed how encountering them “leaves a person feeling inadequate, and I guess it’s the levels of anxiety that comes with these wicked problems” (P6).

The size of the problem is highly intimidating. P9 said, "yet you're still part of a bigger system that you have little to no influence on sometimes". P8 added, "It feels almost like bigger than yourself, out of your control. It just feels helpless; why start because it's so massive?". They both proposed that this might be related to naming a problem 'wicked'. P8 pointed out that the convention of naming seems to be a Western way to feel in control.

P4 reiterated the opinion of P6, providing an example of how “with Corona, some of what I’ve seen as well is that it’s almost like all of our decisions now feel like the stakes are much higher”. P8 stated that “it feels like it’s out of my reach or out of my control”. Other participants described these issues as inexplicable and confusing (P7), confrontational and high risk (P6).

In addition, *Wicked Problems* present “unprecedented challenges” (P3), are “difficult” (P2) and “they kind of confuse each other” (P7). These statements seem to reflect *Stakeholder* perception that the demands of these problems exceed their capacity and resources. This pattern is reflective of the job-demands resource model in employee engagement (Bakker, 2015; Bakker & Demerouti, 2016). In that model, the authors contend that engagement is negatively impacted as the gap between demands and resources increases.

Not only are the issues highly demanding, as illustrated, but *Stakeholders* often do lack resources. P6 explained, "whereas I find that these wicked problems there's no frame of reference, it's like you have to solve it from a blank slate without previous experiences often not even knowing anybody that has experienced something similar". As P8 corroborated ", as a leader you don't obviously have all of the answers or all of the solutions".

In addition to being illusive, intractable and intimidating, *Wicked Problems* are highly impactful. These findings will be explained in the next sub-section.

#### 5.2.2.4 Sub-Theme 1.2.4 – Impactful Problem

The sense-making framework proposes that *Wicked Problems* are *Impactful Problems* with the propensity to affect the ecologies (Fenn & Hobbs, 2015; Irwin *et al.*, 2015) with which they are connected (Griffiths, 2020).

Section 2.5 revealed how detrimental *Wicked Problems* can be (Carayannopoulos & McConnell, 2018). Participants reinforced this perspective. P6 affirmed, "They often are associated with very high risks, and so one can't just ignore them because they have the potential to be rather catastrophic in their impact.". P5 concurred, saying, "Often wicked problems are also problems at the core of the business, so they can really have an impact.". P10 stressed, "They're usually hugely important. They hit the world like a tsunami or organisations, but they tend to be really big in nature. So they are generally critical for humankind."

As P4 argued, decisions in these situations have “life and death implications”. These problems are “very shitty for the poor refugees who drown on boats and the children who die of starvation in war-torn countries” (P1). The “nature of the problem is always far-reaching” (P10).

*Wicked Problems* create economic burdens and financial costs. As P3 asserted, “it places burden, economic burdens”. P6 observed that *Wicked Problems* “could result in rendering an organisation to be non-functional”. She added that “it could have financial risk, reputational risk, it could have a potential risk of disinvestment, which links back to the financial” (P6).

P1 focused on the human cost of *Wicked Problems*, reflecting on the pain of so many people who live, often for years, with the realities and humiliation of hunger, poverty and the proximity of death, and the struggle to overcome almost insurmountable odds to survive or to get ahead. She highlighted the plight of children who “are going to school hungry” and “going into homes with no food in the cupboards”. She spoke of “how dehumanising it must be for people to come into your home and take pictures of your really shitty shack that floods every time it rains and is horrendously freezing all winter”. As P9 observed, poverty “impacts a lot of people”.

P6 focused on the “cost impact on a person” and how it “could be that it prohibits you from achieving what you want to achieve”. She further emphasised the longevity of *Wicked Problem* impact, contending that “desperation can also be linked to how long people have had to tolerate that particular problem”, adding, “it's rather sad when you think about it that in some instances it may take 25 years and still we haven't shifted”. P8 observed specifically “how almost impossible it is to escape our past” as South Africans.

*Wicked Problems* cause physical, social or spiritual hurt. P2 explained that hurt “can be bodily harm, it can be on all of the levels, but the very definition can also be fairly abstract.... It can be about ideals that have been hurt or breached, it can be about metaphysical goals like equality” (P2). She expanded, “or values have been breached, fairness, quality links to a value that you could call fairness, so maybe your values have been hurt”.

Considering the impact of *Wicked Problems* at an environmental level, P2 focused on the impacts of “climate-related events such as heat waves, hurricane season two years ago in the US that was particularly painful, wildfire season in Australia, Central Europe, the US they were particularly painful”.

But P1 also had a more positive perspective on the impact of *Wicked Problems*. She justified this position, saying, “They keep us human, they keep us in touch with suffering, they make us care about other people, they make us question why things are the way they are, why systems are set up the way they are”. She added, “I think that it's a necessary part of our reality” and, “I think without it, we'd just be one-dimensional, vain creatures” (P1). P10 proposed, “every time mankind has really changed, it's been because of a wicked problem”.

P1 also stressed the role of personal pain and empathy in fostering a willingness to engage in tackling these problems, and P2 emphasised their emotional impact and the value of collective care which develops around these issues. P2 also suggested that the extreme impact of *Wicked Problems* gets people involved in responding to them. P10 agreed, stating, "They will become engaged when it impacts on their working life, their home life."

There are also potential benefits to working through *Wicked Problems*. As P6 stressed, "once you've worked through such a wicked problem it often leaves you – well sometimes a favourable outcome and you feel quite achieved and that you've learnt from that and it grows your skillset and your toolbox and abilities to next time round hopefully have a frame of reference to deal with it". P5 seemed to imply that good outcomes in the context of *Wicked Problems* could be good for a stakeholder's professional reputation. As he said, "if you are involved in them potentially you are involved in a project that will probably have a big impact on the company" (P5).

The high level of impact of *Wicked Problems* leads to an imperative to deal with them. This finding will be discussed in the next sub-theme.

#### 5.2.2.5 Sub-Theme 1.2.5 – Imperative Problem

The sense-making framework proposes that *Wicked Problems* are *Imperative Problems* which create importance and urgency for action (Ayers, 2020; Corman & Cox, 2020).

The enormous impact and cost of *Wicked Problems* mean that tackling them is imperative (Burge & McCall, 2015).

Participants supported the imperative to act. As P1 observed, "I don't think wicked problems can ever be solved, ever, but I think that part of it is that we should try.". P10 concurred, stating that *Wicked Problems* are "critical because they need a solution, and I don't know if we're ever going to have solutions for some of them. But they do need a solution, and every step that we take seems to generate more pieces of the wicked problem itself."

P6 explained that "the worst thing a person can do is to ignore a wicked problem and to pretend that it's not there". She insisted that "they're critically important, they're unavoidable to deal with". P2 affirmed that they "matter because they describe all the key problems that matter today".

Adding to the pressure for *Stakeholders* to urgently respond to *Wicked Problems* is the fact that inadequate responses may allow these issues to escalate. P5 said they "tend to not be planned but to be urgent". P2 agreed, indicating that they "need wickedly fast action" and "we need to get them right in the next some decades because otherwise, challenges might cascade into bigger ones" (P2).

As indicated in sub-section 5.2.2.4, decisions in this environment have "life or death implications" (P4), which create a sense of "rightness being privileged". P2 affirmed this

imperative, commenting that these are “problems where there is such a strong drive to either get things right, because there’s an absolute goal we otherwise miss, like in climate”.

A question which arises is, "For whom are these issues imperative?". The problem is "wicked because you can't ascribe the responsibility to ownership so clearly", according to P2. However, she asserts that "ultimately ownership, the ultimate, ultimate, ultimate ownership lies with humanity" (P2). P8 argued that whilst conversation is important for *Stakeholders* who engage with *Wicked Problems*, getting to action is essential.

Whilst there is an imperative for *Stakeholders* to act in the context of *Wicked Problems*, a key finding was that even if they cannot be solved, they can be influenced. This last sub-theme in the *Wicked Problems* theme is expounded in the next sub-theme.

#### 5.2.2.6 Sub-Theme 1.2.6 – Influenceable Problem

The sense-making framework proposes that *Wicked Problems* are *Influenceable Problems* with the potential to be positively impacted such that they become less destructive.

A *Wicked Problem* pattern can be influenced (Mennin, 2019), even if it cannot be solved (Daviter, 2017; Dentoni *et al.*, 2018; Irwin *et al.*, 2015). As was established in sub-section 5.2.2.2, a *Wicked Problem* is intractable, but as P4 stated, "it can be influenced", and as reported in sub-section 5.2.2.5, there is an imperative to respond. As P6 asserted, "they're unavoidable to deal with". P1 indicated that *Stakeholders* "work together to address it", and P2 observed that "you need to address it ideally from the most impactful level".

A solved problem is, by implication, one with a perfect outcome. Influence, by comparison, is considered imperfect in this context. In these systems, "everything is provisional, and everything is aimed at being good enough and never perfect. In fact, it's impossible to be perfect by definition of a complex system" (P7). As P4 corroborated, "You can't find a universally applicable solution. Something that works in one part of a system is not necessarily going to work in another part of the system". P6 added that "sometimes what people may suggest as solutions may not be practical or feasible but at least being given the opportunity to look at that".

In the absence of a solution, participants posed questions regarding what influence could be possible. P2 asked, "So what is even the space of possibilities that can be thought in?" and P9 posed the question, "What can we do here with what we have now?". P6 added that "It's really around the lens with which you look at a community" and "how you could take those assets and put them to use to potentially solve the wicked problem".

So, influencing *Wicked Problems* seems to focus on what can be achieved. P9 commented that there would potentially "be less pain because things would be simpler and more straightforward" if there were no *Wicked Problems*, so "less pain", "simpler", and "more straightforward" might be possible or ideal outcomes of influencing the problem (P9). P6

illustrated that even under-resourced communities can actually achieve a lot "there's this social economy that people use to solve their everyday problems, and that they lean on each other, that they support each other's initiatives, that they use the little bit of assets that they have in their hands, and they make something of that".

Some of the participants discussed the scale of influence. Whilst P5 proposed that "a wicked problem is a very complex problem that needs a very complex solution", P6 suggested, "you also just deal with little segments of this wicked problem" because, as P8 said, "it's not something that you necessarily know how to untangle".

More specific and detailed findings in respect of *Stakeholder Engagement* follow in the remaining sections of this chapter. The next sub-section structures the findings in respect of *Stakeholders* to further answer secondary questions 2 and 3 of the research question.

### 5.3 Meta-theme 2 – Stakeholders

The tertiary sense-making framework question (SFTQ2) explored in this section is:

How could the concept of stakeholders be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?

Answering this question contributes to answering the third secondary research question.

In section **Error! Reference source not found.**, **Table 13** summarised the conceptual framework developed in that chapter. An extract from **Table 13** is duplicated below for ease of reference, illustrating the alternative framing of stakeholders in the conceptual framework. Concepts highlighted in blue are similarly portrayed in the sense-making framework, although the nomenclature or position in the framework may have changed slightly. Concepts highlighted in red are reframed in the sense-making framework. Concepts highlighted in yellow have been excluded from the sense-making framework because they have been included in other themes. 'Stakeholders have intentions' has been integrated into *Stakeholder Choice*, and 'Stakeholders have needs' has been integrated into *Stakeholder Complexity*.

#### Extract from Table 13 The Conceptual Framework (Duplicated)

Alternative Framing for Stakeholders			
<p style="text-align: center;"><b>Stakeholders are whole, five-fold beings</b></p> <p style="text-align: center;">Stakeholders are social, physical, intellectual, spiritual and emotional, and all five aspects impact how they engage as stakeholders.</p>			
<p style="text-align: center;"><b>Stakeholders are individual or collective agents, animate or inanimate</b></p> <p style="text-align: center;">Stakeholders are key agents who have a stake in the wicked problem or represent another entity with a stake. They have a reciprocal influence on the system through interactions.</p>			
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.

The sense-making framework proposes that *Stakeholders* are individual or collective agents within or related to the *Wicked Problem*. They may be animate or inanimate and are involved in reciprocal influence with the system through interactions. This proposition is supported by perspectives of research participants. Two themes and seven sub-themes support this proposition.

**Table 27** presents the second meta-theme of the sense-making framework. A narrative description follows this summary. Concepts highlighted in blue are similarly portrayed in the conceptual framework, although the nomenclature or position in the framework may have changed slightly. Concepts highlighted in red are reframed in the sense-making framework. Concepts highlighted in green were not represented in the conceptual framework.

**Table 27 The Emerging Sense-making Framework B**

Meta-theme 2 - Stakeholders			
Theme 2.1 - Stakeholder Dynamics			
Sub-theme 2.1.1 Stakeholder Complexity	Sub-theme 2.1.2 Stakeholder Change	Sub-theme 2.1.3 Stakeholder Conflict	
Theme 2.2 - Stakeholder Agency			
Sub-theme 2.2.1 Stakeholder Identity	Sub-theme 2.2.2 Stakeholder Choice	Sub-theme 2.2.3 Stakeholder Power	Sub-theme 2.2.4 Stakeholder Vulnerability

### 5.3.1 Theme 2.1 – Stakeholder Dynamics

The sense-making framework proposes that *Stakeholder Dynamics* vest in the belief that people are living systems, connected to and inseparable from other entities in the *Wicked Problem*. Three dominant dynamics of *Stakeholders* are complexity, change and conflict. This proposition is supported by perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341), and the findings reveal that the same pattern of complexity, change, and conflict seen in *Wicked Problems* can also be observed in *Stakeholders* and stakeholder groups. As P2 commented about *Stakeholder Interactions*, "I think it can play on the various levels."

The sense-making framework proposes that *Stakeholders* are characterised by three *Stakeholder Dynamics: Stakeholder Complexity, Stakeholder Change* and *Stakeholder Conflict*. These three sub-themes are presented in the next three sub-sections.

#### 5.3.1.1 Sub-Theme 2.1.1 – Stakeholder Complexity

The sense-making framework proposes that *Stakeholder Complexity* explains the whole, interconnected, multi-dimensional (Dudgeon *et al.*, 2017; Gómez-Suárez *et al.*, 2017; Rashidin

*et al.*, 2019) nature of *Stakeholders* – their social, physical, intellectual, spiritual, and emotional (Beauchemin et al., 2019; Chipchase et al., 2017; Musser et al., 2013) nature. The researcher used the acronym SPISE to refer to these five aspects of personhood.

Whilst this research distinguished these parts of people, it did so in accordance with the model of “genuine complexity” discussed by Rocca and Anjum (2020: 86). The five aspects of personhood interact with one another and cannot truly be separated, except theoretically. It is only the interaction of the parts which gives them their identity. They can be viewed separately but are inseparable (Agazarian, 2012). As P4 argued, “the system is different than the sum of its parts. There's behaviours, there are aspects to that system that you can't explain or can't understand just by looking at the parts.”

Findings will be presented related to the *Social Complexity*, *Physical Complexity*, *Intellectual Complexity*, *Spiritual Complexity* and *Emotional Complexity* that collectively comprise the sub-theme of *Stakeholder Complexity*. For reference, a detailed table of qualities of each aspect of personhood identified in the conceptual framework is included in **Table 37** in Appendix **Error! Reference source not found.**

#### 5.3.1.1.1 Social Complexity

*Stakeholders* are social beings who operate in relationships with other people and within economic and organisational systems. They live in communities, work in organisations, and occupy different roles. P3 commented, “A stakeholder is an entity both internal and external of an organisation that makes up your customer suppliers, investors, employees, communities, etc.”

They choose their proximity to others, at times fostering meaningful and insightful connections or powerful collusions. As P1 illustrated, “it's the rich and powerful and connected who ask favours from buddies”. At other times they might deliberately avoid people. As P1 noted, “you do all of those things to distance yourself from them”. They cluster and choose sides, as P9 inferred, “our inability to communicate effectively with people on the other side, whichever side we're on. It prohibits change and prevents real engagement.”

As social beings, *Stakeholders* have social needs. P3 proposed, “while money is not everything, it ranks up with oxygen, and that is the reason people work”. Irrespective of who they are, they have a need to be treated with dignity and respect (P1). P5 affirmed the social value of reward and recognition from respected leaders.

Social structures and financial factors may cause or perpetuate *Wicked Problems*. Limited funding may constrain *Stakeholders*. P7 addressed the “disconnect between the time that funding becomes available and distributed and the reality of when you need this”. P9 observed that smallholder farmers have less platform to mobilise “volunteers for their cause to raise funds”.

As P1 explained, being poor can have a profound impact on access to privilege and resources, the opportunity for self-expression and personal development. She illustrated the role of social class and privilege in the development of respect and self-esteem. Without justifying the example described, this observation demonstrated the personal social complexities involved in issues such as gender-based violence.

"Look at GBV, if you look at gender violence. If, as a child, I grow up in a home where I'm always having to rely on hand-outs, and at every opportunity, I'm reminded that I am nothing as a man, how else do you assert your power, how else do you assert your manhood? There's this whole thing about people going through the rites of initiation, and you become a man. How am I man, if I have to beg for food? How am I man, if I can't even get a job? I can't even think of getting married and having children because I can't even feed myself. How am I man, if I have nothing to show for it? How am I a man if I'm constantly told that I don't matter and – I don't know if I could stand at the side of a road every day and beg, I don't know what that would do to me. I don't know how it would completely destroy my sense of self." (P1).

Upbringing and culture shape social patterns in *Stakeholders*. P9 described how "you really get to see sides of yourself when you're living so closely with someone that you didn't think were strange or abnormal", and she explained that structural factors such as regulatory frameworks, legislation and societal norms make social change difficult to manoeuvre (P9).

Some social resources can be developed without money or status. Personal social skills described by participants included politeness (P1), the ability to negotiate and demonstrate empathy and tolerance (P6), the ability to build friendships and provide recognition (P5) and to communicate and fit into a social system (P9).

Stakeholder access to social resources may differ greatly, depending on economic or social status and relational networks. P5 illustrated that "talking to him was also above my pay grade", and P4 spoke about how some engagement activities do not "necessarily give them a voice". The practical implications of this principle were explained by P9, who questioned, "Who can actually get there, who can actually either afford to take time off work? For some people it's a five-minute drive, for other people it's public transport plus a time cost. Some people just have to walk in, and maybe it takes a while".

P8 demonstrated that trust is a liberating social currency, explaining, "You as the stakeholder you can do with it what you want in a way that I'm saying I trust you and I see the value that you add". "Engagement will base itself on the aspect of trust, integrity", according to P3, and trust builds over time, as P7 demonstrated, "then they can see you've been real thorough and then I think they will trust you to do thorough work, and then the next time you tell them, no, I did this and this because you told me to, then they will trust you that you are right".



*Stakeholders* can contribute social resources as indicated by P9, "The most obvious one is cash funds, but the equally important ones are people, competencies, strong institutions because they bring that mixture of people and institutional memory, and just knowing how to get stuff done."

#### 5.3.1.1.2 Physical (or Practical) Complexity

*Stakeholders* are physical beings whose physicality is expressed in practical presence in the world. As P3 illustrated, "healthy employees with their robust well-being are more likely to be more productive and engaged", while some lack "oomph and determination", according to P1. Physical involvement is "contributing or acting in" the situation (P8), and the most impactful *Stakeholders* are those "people, group actors who can do the most in the shortest amount of time" (P2).

P1 advocated that race, gender and physical attractiveness play a role in power dynamics. She said "biologically it means something, it means I can have a baby and if I'm a man I can't, but it means nothing until I use it as a currency until I give it expression". Then she asked, "What use is power or money or privilege, or skin colour because those are intangible unless you're able to convert it into something that is tangible?" (P1). She illustrated, "I will dominate people who are..... not as attractive as me" (P1).

Physical needs include food, transportation, clothing, places to work (P1), and resources like data (P6). Some people need "so many leg ups", but "sometimes it's just one small change, give me data, or drop chemicals in the toilet" (P6).

Physical limits, deprivations, and desperation might move *Stakeholders* to engage in efforts to tackle *Wicked Problems*, as P6 asserted. "I can't help thinking of the many service delivery protests we've seen, so it's years of ineffective service delivery.....the duration of that also has an impact in terms of the desperation and the wanting to change that". Physical limits mean that "it was exhausting just to get to this point" and physical exhaustion is an important factor in stakeholder disengagement, as explained by P9 "sometimes they just don't have energy to push anymore".

P1 illustrated how some *Stakeholders* might physically distance themselves from the issues to avoid involvement, "You check that your door's locked, and you close your window, and you put your windscreen wipers on to make sure the guy doesn't spray his dirty water all over your windscreen, and you do all of those things to distance yourself from them."

Physical location and proximity, hard work and tools are all necessary for *Stakeholders* to engage practically in the context of *Wicked Problems*. "Look at some of the things that work incredibly well, people who are trying to solve these problems, and what's similar in most of them is that they're people who live there with them, who out of the little bit that they have feed children" (P1). Additionally "if you really want to help then you go there" (P1).

#### 5.3.1.1.3 Intellectual Complexity

*Stakeholders* are intellectual beings who have perspectives, knowledge and thinking abilities. All *Stakeholders* come into the *Wicked Problem* context with a personal perspective, the ability to “see things from different angles” (P8), with their own set of “mental models and world views” (P8). They have “different levels of education and experience” (P9) and their own “frame of reference” (P6).

Intellectual effectiveness can be hampered by self-delusion. As P1 explained, “you convince yourself that stuff is not your problem”. Fixed patterns of thinking also impair thinking. As P4 stated, “We bring our own bias.” and sometimes decide based on “ignorance and deep-seated narratives of bias and exclusion” (P4). P6 added, “Language can be a huge challenge if people tend to use phrases and so on which excludes people instead of helping them understand. It rather confuses them, and people disengage.”.

Intellectual apathy or fear may inhibit stakeholder participation. As P6 reflected, some people “will align their thinking with what the leader says. It's really sad that some people don't have opinions or there's an apathy, are afraid to voice their opinions.”. She also stated that cognition is not a visible process, which can inhibit understanding and create a need to explain decision-making. “A lot of that process happens cognitively, and you don't always express those. But if you could have a post conversation ..... going back and explaining that rationale as best as one can” (P6).

Judgment may be clouded by emotion. As P6 explained, “often the parties that need to solve the wicked problem emotions run high, and there's many peripheral things that kind of cloud people's judgement and thought processes”. Similarly, lack of knowledge sharing “is not helpful because they don't feel that they are informed, and they don't have the information needed to actually contribute to solving that problem”, as P6 advised. P2 extended this argument, saying, “gathered information can lead to a change in action”.

*Stakeholders* each have their own understanding of the problem, with those who are closest having “a deep understanding of the context, they know best how this problem affects them” (P6).

As such, *Stakeholders* contribute to engagement processes “from their perspective” based on their “strong sense of curiosity” and personal logic, as P2 elucidated. But, as P7 expressed, they hold “the understanding between the different nodes” to “understand the total system”. P4 added “we've got patterns in our long-term memory” to assist with decision-making, and P8 expanded, “What are those things that help you make sense of something, what are those contexts that you draw on, the knowledge that you draw on, the experiences that you draw on to kind of construct these stories?”.

Multiple perspectives (P8) make it possible to ‘make more sense of it, but also there's something about meaning-making and finding meaning’. P4 questioned what could shift with

"diversity of perspectives and if we can bring our collective imagination to bear on these things", especially if, as P1 proposed, "In this space, we are all equal and every idea and contribution is equally relevant and valuable."

Engaging effectively with *Wicked Problems* requires the right intellectual reasoning. Whilst some have a "mindset that loves categories" (P4), P4 proposed that hope lay in the ability to "shift the prevailing thinking paradigm from linear, categoric..... to seeing this as systemic". She advocated for adopting "more of an experimental mindset" (P4).

"A lot of the process happens cognitively", as P6 observed. She ruminated on the cognitive abilities involved in responding to *Wicked Problems*, including lateral thinking and the ability to imagine and evaluate scenarios. In the following excerpt, she highlighted the need for problem-solving skills, higher-order and ordinary thinking, conscious thinking and analytical thinking.

"And so people have some ability to solve problems, and if a person could just expand on that innate ability. Sometimes it may just not be high order, it's more day-to-day stuff, and sometimes people need to solve problems that require far more conscious thinking, cognitive skills. So how do we help people to move into that higher order thinking, being analytical, evaluating stuff?" (P6).

#### 5.3.1.1.4 Spiritual Complexity

*Stakeholders* are spiritual beings who have beliefs, values and personal intentions, which tend to motivate behaviour. Based on sub-section 3.4.1 in the conceptual framework, *Spiritual Complexity* is the internal substance that influences and underpins behaviour and choices (Tiwari & Pathak, 2018), including concepts such as beliefs (Barley-Greenfield, 2017), values, attitudes (Varghese & Joseph, 2020) and character (Mokolatsie, 2019).

Participants alluded to the internal characteristics which impact choices and behaviours. P3 proposed *Stakeholder Engagement* should begin with an understanding of aspiration and purpose at an individual and organisational level. She asked, "What is my company's identity, my values, my competencies, my aspirations?". P1 argued, "Everyone comes in with their agendas and their motives", and P8 suggested that motivation is "your thinking behind your actions". P1 warned that "it's very easy to go into something with the right motives maybe, but as it grows, I think very few people can resist the stuff that comes with it".

P7 highlighted the role of values and beliefs in shaping action. He observed that "through values, deeply held beliefs or entrenched behaviour patterns that come out of those deeply held beliefs, you land up tipping, nudging, bringing". He observed that "it's a whole philosophical thing" (P7), and P2 explained that questions of cause are "a very philosophical debate of responsibility". P4 proposed that ideologies like capitalism and nationalism limit boundary-spanning thinking, and P7 explained that the values which underpin capitalism and socialism "have very, very definite effects on the socio-ecological system".

Beliefs play a role in thinking and decision-making. As P4 illustrated, "If I don't believe that there is value, for example, in the knowledge that exists in the Koi, or in a corporate context, if I don't think that the compliance division has any value to add to my process I'm not going to engage them.". P1 added, "there are people who choose to oversimplify it and think that if they just throw money at it, we can fix it, or get political will behind it we can fix it".

In the context of ethically-challenging *Wicked Problems* (Nardo & Gaydos, 2021), participants referenced a number of qualities of virtue and character in their discussions (Jordania, 2020: 93). P1 indicated that *Stakeholders* could or should exhibit real goodness instead of "if you do something good for someone that you feel pleasure from that act it's a selfish act", real generosity instead of "giving something to a poor person and taking a picture of it, and it simultaneously goes look, I'm such a good, generous person" (P1).

P9 invited the consideration of ethics, asking, "What are the ethics around helping someone build a wall for free and who will maintain it?" and P1 alluded to matters of conscience, saying:

"You shouldn't be able to drive 30 kilometres to a shopping centre, pass how many beggars at intersections and how many ladies with little babies sitting in the boiling sun and not think that you have to do something about it, and not think that that is horribly wrong."

Personal qualities such as will, drive, determinism and optimism were found to be linked to motivation and involvement. P6 said, "Effective engagement is only possible if it really matters to you". She added, "that affinity to what you're lobbying for, what you want to be solving needs to be there from the start. The passion, the will, the drive". Other qualities mentioned by participants included determination (P1), optimism (P9) and resilience (P3).

In contrast, participants also raised more destructive character traits such as cruelty, evil, dishonesty, selfishness, greed, guilt, and hard-heartedness. P1 said, "I think it's an act of cruelty and evil to create a situation where you're forcing people who are dependent on you at the risk of their own peace of mind and their own dignity, and their own self-respect.". She further commented, "I don't think people are honest with what their real motive is."

P9 explained that new problems like "cyber security, cyber threat, cyber virus, all the cyber stuff, are still rooted in a systemic problem with human greed". P1 described how "maybe the first few times you do it, you feel guilty, and after a while, that guilt's not there anymore". P4 reflected, "and so I think a big part of this is just the awareness of that, to not show up with hubris and arrogance and think that you're going to be the only one that's never ever going to trigger unintended consequences" (P4).

Finally, participants alluded to *Stakeholder* qualities of responsibility, commitment and ownership. P1 emphasised that "you have a responsibility to maybe not solve global poverty, but you do have a responsibility to do what you can with the resources that you have, to at least help some poor people that you know". The challenge, as P2 explained, is "to make a

*Wicked Problem* even more wicked; it's probably exactly the question of the difficulty of attributing ownership and responsibilities for either some elements or the whole of it". She added, "there needs to be a minimum amount of ability to take on – resources, not ability, I think probably people have the ability but resource and capabilities to take on ownership" (P2).

Yet there are examples of commitment such as those cited by P1 "they made a commitment and for every single day, Monday to Sunday, for 20 years they get up, and they make the soup", and P9, who expressed "respect for these large corporations who are making commitments towards the fight against climate change".

#### 5.3.1.1.5 Emotional Complexity

*Stakeholders* are emotional beings who have feelings and emotive responses which impact their engagement (Dembczyk & Zaoral, 2014). Participants provided evidence for this emotional nature of *Stakeholders*, with P2 stating, "humans are emotional", P1 asking, "How must they feel?" and P8 highlighting "those things that don't have words, but you can feel it". P2 said that in terms of *Wicked Problems*, there is "an explicitly human and emotional element to it", and emotion "often weaves through for better or worse".

Emotions impact interactions. As P6 commented, "often the parties that need to solve the wicked problems emotions run high". P5 addressed how mood affects work "I hope he is in a good mood because if he's in a bad mood, I'm going to throw away this work and change it a bit and present it again next month and hope he's in a better mood.". The same participant described a situation in which "the CEO got mad at her boss because the CEO is one of the stakeholders who are mad at him" (P5).

People need to feel good about themselves. As P1 pointed out, "I think that most people's motives going into something are either how they would like to perceive themselves or how they would like other people to perceive them.". P8 posited that the metaphors *Stakeholders* use to understand issues could alter "how you saw yourself in that situation".

A *Stakeholder* is, according to P2, "a concerned party". "They have some level of justified interest" (P2). They need to have "empathy, tolerance" (P6) and "self-awareness, empathy, kindness, patience" (P9). They can exhibit care in the context of *Wicked Problems*. As P1 contended, "These are people who care about them because they are in the communities that they live in, day in and day out.". She mooted the ideal that "We're all here because we really deeply care about this problem." (P1).

A dominant and potentially paralysing emotion described by participants was fear or anxiety. They may be "afraid to voice their opinions", as P6 lamented. Having to make decisions in the absence of "sufficient information is very anxiety-provoking", according to P4 and P6 corroborated this, saying, "it's the level of anxiety that comes with these wicked problems".

P9 proposed that *Stakeholders* experience “fear of the unknown” and said there are ways to gain “insight into the anxiety they have right now” (P9).

P4 stressed that “The levels of uncertainty at the moment are just such that I see so many people almost paralysed because they’re so scared to make the wrong decision.” In contrast, however, P9 noted that “there’s that fear of the unknown, of what happens if we fix this problem?”.

P9 spoke of the depth of emotion that *Wicked Problems* could elicit. “That pain and I think pain, and I think anyone who’s in development has experienced it when you think you realise the limits of your own capabilities and thinking”.

P1 discussed the possibility of empathy being depleted. She said, “and then you’re not a person anymore, you can’t feel empathy, you can’t feel pain imagining somebody else’s suffering”. She spoke of people who “don’t care” (P1). Alternatively, people may “snap”, according to P2, and that “can be a very logical reaction”.

Findings will now be presented in respect of the sub-theme of *Stakeholder Change*.

#### 5.3.1.2 Sub-Theme 2.1.2 – Stakeholder Change

The sense-making framework proposes that *Stakeholder Change* explains the constant emergence of *Stakeholders* as they assimilate their experiences and on-going interactions with their environment.

Change is a factor of biology. At the most fundamental cellular level, “our cells are replicating, like replacing themselves every however many hours” (P4) and people are changed by their experiences (Tange, 2020). As stated in sub-section 3.4.2.4, people are “constantly evolving, gaining and expending resources and changing their perspectives, opinions and choices in response to experiences” (Head & Xiang, 2016; Peters, 2017; Reams, 2016; Tange, 2020).

*Stakeholders* have an inbuilt propensity to change, which is enhanced when they are “aware that often one doesn’t know anything, or at a minimum much less than one thinks” (P2). They “usually act in a situation itself consistently with who they are, but that doesn’t mean that over time their views might not also change a lot” (P2). As they change, they become different entities. They are no longer the same person who stepped in the river before, as P4 illustrated:

“If you think about it, your life is a flow through time and space. Organisations, collectives, they are flowing through time and space. And so it’s going back a little bit to Heraclitus, that said a man can never step into the same river twice because it’s not the same river and it’s not the same man. So there’s this aspect to it that it’s always changing, it’s always flowing.”.

*Stakeholders* are changed when they experience a reality. P4 gave an example “Something I watch on television can so profoundly influence me that when I show up at the office

tomorrow, I'm different.". P10 explained how "scepticism would then grow into belief because there's now some evidence, and as the evidence mounts then the belief becomes support, and then it starts becoming something a lot more positive than action-driven", illustrating how he observed people changing from sceptics to active participants.

Change may be inevitable or unconscious, but it may also be volitional. As P5 put it, "you also have to change so much in your organisation, in your investments, in your budget, in your people, in your culture". P4 pointed out that *Stakeholders* "are impacted by or have the ability to impact on the system". However, they can "either choose to adopt or reject" the things to which they are exposed (P4).

Other change is more intentional and deliberate, more active learning. They may gain new skills, as P6 suggested, "I guess more critical thinking skills, the ability to really evaluate, just general problem-solving. And also creativity". Some "are people that make it happen, they're go-getters, they're positive" (P3) and "If you can embrace change and you embrace the flow aspect of your own life in an organisation, then if you get it wrong, change it" (P4).

Deliberate change may entail "suspending your judgement, your assumptions" (P8), or you might "play with the rules a bit, or you're going to challenge the norm, or you're going to do things differently" (P8), or breaking out of old patterns and breaking into new ones, as P1 elucidated, "the lucky few are able to break into it, I think the ones who honestly are able to do it by sheer will and strength, and coming from nothing".

Some of this change happens because *Stakeholders* adopt a new position or look at a situation from a new vantage point. As P8 explained, "if you can see things from a stakeholder's perspective, essentially from an insider's view, it helps you understand the way that maybe knowledge is produced, or meaning is made, or people make sense of things". Finally, "Information can lead to a change in action." as P2 observed.

Change is not always welcomed by stakeholders, as P10 emphasised, "A lot of it is related to the fear of change." and added, "They are change-resistant. So they're very afraid of change, further change." (P10). She explained that "They are afraid because they think they may not be good enough, they don't have the right skills, they don't have the understanding of technical things. They don't believe that what we are going to give them will give them a better working experience." (P10).

Change is not always perceptible. As P8 observed, *Stakeholders* easily "just get stuck in a rut, they just do the same old". Alternately they may make very slow progress, sometimes "one step forward, two steps back thing you know" (P1). *Stakeholders* in large organisations, slowed by bureaucracy, "sometimes do really envy the smaller players who are far more agile" (P9).

Findings will next be presented in respect of the sub-theme of *Stakeholder Conflict*.

### 5.3.1.3 Sub-Theme 2.1.3 – Stakeholder Conflict

The sense-making framework proposes that *Stakeholder Conflict* explains that *Stakeholders* differ and that they have to operate in a world of contradiction, incompatibility and difference (Di Domenico, Le, Liu, Ayaz & Fournier, 2016; Mack, 2018).

Participants highlighted differences between *Stakeholders*, beginning with their different beliefs and frames of reference. P6 articulated the challenge, stating, "when you group people around the problem and you ask them to help you resolve that problem, they may have opposing views, and those opposing views may not be possible for you to align". P8 observed, "you as one stakeholder might not understand how another stakeholder experiences the problem or where the problem came from for them".

Overcoming differences in belief can be difficult. P4 provided an example from recent experiences with Covid vaccines "You can't use science to explain to someone with the belief system that makes you think, but scientifically that's not possible. Because how do you use logic to combat belief?" (P4).

Conflict also emerges in relation to knowledge and thinking gaps. *Stakeholders* may not know everything they need to know; as P2 observed, "often one doesn't know anything, or at a minimum much less than one thinks" (P2). Making the point that "nobody really has a view of the entire system" (P4) meant that there would be "blind spots". Also, "consequences or risks that you may not have contemplated" (P6), and there will be "different opinions" (P7).

*Stakeholders* "might be thinking about it differently" (P2). For example, some "tend to think that these problems honour our chosen boundaries (P4) ", boundaries which may be personally framed". They may have perspectives that they "just take for granted. It's not like they were put there by God" (P4). In addition, as P9 explained, "you've got different levels of education and experience".

P8 illustrated the outcomes of these differences "We got a completely different story than what we've been told officially by the media."

*Stakeholder* differences and gaps are also reflected in their resources. Lack of access to resources means that some *Stakeholders* "have all the odds stacked against them" (P6). On the other hand, "There are some people who have the resources to shape things a lot" (P9). P2 asserted that "you need to have the necessary resources to take ownership of a problem". She provided two examples "you can't give a toddler ownership of its education" and "you can't expect from someone who is busy trying to survive a famine to care about and take ownership of climate change" (P2).

Competing personal and systemic priorities also contribute to *Stakeholder Conflict*. P3 asserted, "We've got to be very clear about our goals, very clear about our directions, and we've got to be very clear on our interest. And very clear on our priorities". Yet, as P4 posed,



"there are competing priorities". P5 provided an example from his internal work environment "there's other important projects as well, so I prioritise other projects, and then this one has some delay", and P6 said, "sometimes you just need to do some immediate internal communication, or you have to immediately speak to some external stakeholder, and you can't do all of it at once".

P10 explained that *Stakeholders* "have cognitive dissonance too about wicked problems". P4 provided an example "we care about the well-being, well supposedly, we care about the well-being of our staff, but we also care about productivity, and these two things are pulling in different directions". On a more personal cognitive level, P6 observed that there are "many peripheral things that kind of cloud people's judgement and thought processes".

Tensions are created by needs-based conflicts. P2 gave an illustration of the kind of conversation that happens when working with constrained budgets "we will have a budget of \$1 million for our neighbourhood, but it's not more. It might be completely open, or it might be we have 1 million, but 500 of that are re-allocated, we can talk about the remaining 500, and by the way, we do need to solve for transportation". P5 spoke about the status needs of managers who "have a big ego. So let's say their personal opinion can also influence their work". Some *Stakeholders* "may feel that they're not being heard or don't have an equal opportunity" (P6).

Differences between *Stakeholders* may manifest in their behaviour. P5 provided three examples of ways in which people might exhibit disagreement. Firstly, they can "openly disagree on the decision", or "he will support it, but then as soon as his boss is not in the room then he'll just openly say, I think it's a bad position", or "they had to formally support it, but then they can informally de-prioritise it or just not give it the attention that it deserves" (P5).

P1 demonstrated the 'us/them mentality that exists in systems. "if THEY just throw money at it, WE can fit it", "it shows all the billions of poor people what THEY can aspire to", and "that THEY will build capacity, that THEY will use THEIR influence and THEIR networks, and THEIR privilege to open up access to resources and all of that" (P1). This demonstrated that *Stakeholders* might be polarised in groups, and as P9 said, there is an "inability to communicate effectively with people on the other side". This may also be associated with the fact that "some people don't have opinions or there's an apathy, are afraid to voice their opinions" (P6).

Finally, power differences emerged as a strong source of conflict. The findings in that regard will be discussed in more detail in sub-section 5.3.2.3. Findings will now be presented in respect of the sub-theme of *Stakeholder Agency*.

### **5.3.2 Theme 2.2 – Stakeholder Agency**

The sense-making framework proposes that *Stakeholder Agency* vested in the belief that stakeholders were key agents who had a stake in the wicked problem or represented another

entity with a stake. They had a reciprocal influence on the system through interactions. This proposition is supported by perspectives of research participants.

The *Stakeholder Agency theme* is a factor of four key qualities: *Stakeholder Identity*, *Stakeholder Choice*, *Stakeholder Power* and *Stakeholder Vulnerability*. These four sub-themes will be presented in the next four sub-sections.

#### 5.3.2.1 Sub-Theme 2.2.1 – Stakeholder Identity

The sense-making framework proposes that *Stakeholder Identity* explains who *Stakeholders* are in the context of *Wicked Problems*. It speaks to their formal roles and persona and to how they show up in interactions.

“Humans have intelligence, intentionality and multiple identities.” (P4).

The question of 'Who is a stakeholder?' (Researcher) elicited an array of responses from participants. P4 argued that "trying to decide whom the stakeholders are, drawing that boundary ..... it's arbitrary". P2 suggested, "I think your only option for managing the complexity that's inherent to wicked problems is to have a broad understanding of stakeholders". P4 added, "I don't think that we always go broadly enough. I don't think that we're inclusive enough necessarily; I think there's bias very often in how we decide who the stakeholders are that should have a voice". P6 suggested that "if someone puts up their hand and says, I want to be involved in this problem they should be included".

P7, in contrast, argued that a stakeholder group should be “the minimum set that you can possibly get by with to move forward”. P2 distinguished between actors and *Stakeholders* and seemed to intimate that an actor was a *Stakeholder* who took ownership, as opposed to a party that merely had an interest. She stated, "whom you define even as a stakeholder group because I think because of the lack of ownership" and "whether or not you're an actor or a stakeholder depends on the respective perspective you're taking" (P2).

Participants addressed the representative nature of *Stakeholder Identity*. P6 explained, "sometimes you have to just consult with the representative of a group". P9 advocated for "greater self-awareness of whether as an individual actor or as a representative of an organisation, just being aware" (P9).

The participants provided definitions of the *Stakeholder* concept as delineated in **Table 28**. They pointed out that *Stakeholders* could be individuals or collectives (P2), who are somehow “part of the entanglement” (P4), who might be impacted or have a contribution to make (P8).

P1's definition should be viewed in the context of her perspective that “those who stand to gain from the *Wicked Problem* being perpetuated ‘gate access’ against the vulnerable and disenfranchised”.

The definitions provided by P3, P6 and P10 are organisation-centric rather than wicked problem-centric and lean towards stakeholder management rather than engagement perspectives (Du & Kadyova, 2016). In the findings, comments from these participants were excluded if they were clearly framed by this perspective, such as "How we could connect each group of its investors, employees, or the entire group of stakeholders internally and externally that will profit that product" (P3).

**Table 28 Participant Definitions of the Stakeholder Concept**

Participant	Definition
P1	1. Those who stand to benefit from it being perpetuated.
P2	1. A stakeholder is a concerned party. 2. An entity of sorts. 3. Groups of people, associations, individuals, groups of individuals with a justified interest.
P3	1. Stakeholders of a product, project, or idea that benefits basically the company in order to get a representation of that organisation in order to influence that project.
P4	1. Agents in the complex system. 2. All who are impacted. 3. Someone or something that is in some way part of the entanglement, there's a connection.
P5	1. People that you need in a project.
P6	1. Anybody who has a vested interest in what happened within the organisation.
P8	1. Someone who is either contributing or acting in, or influenced by, or impacted by, whatever the situation is. 2. Anyone who is engaging with it
P9	1. Anyone who's got something to lose or to gain from that wicked problem.
P10	1. Anybody that has an interest in your business or whatever you are doing. So it could be a supplier, it could be a shareholder, it could be your staff, it could be the cleaner.

As established in section 2.3, *Stakeholders* may be individuals or collectives, and they may be human or non-human (Baeder, 2018; Heikkurinen & Mäkinen, 2018: 5; Pierroux, 2018: 132). Participants collectively provided a list of potential role players who might be engaged in the context of *Wicked Problems*. These role-players included affected parties such as marginalised communities (P6), the poor (P6) and the planet (P8). Funding groups mentioned by participants included donors (P1), sponsors (P1) and investors (P3; P6). Organisational *Stakeholders* identified by participants included NGOs (P1; P2; P9), countries (P8) and

companies (P3). Other groups of people who might be *Stakeholders* in a *Wicked Problem* context included employees (P3; P6; P8), academics (P2) and future *Stakeholders* (P9).

In addition to their formal identities, *Stakeholders* take on various roles when they engage with others in the context of *Wicked Problems*. These roles may or may not be influenced by their primary identities. Participants named role-players in four groups. They highlighted those who have some form of authority, such as leaders (P8), board members (P10), decision-makers and gatekeepers (P6). Some participants play an active working role, such as researchers (P4), planners (P7) and technicians (P9). The planet (P8) and technology (P2) are non-human *Stakeholders*, and recipient groups include those who are dependent (P1) and the disenfranchised (P1). P10 emphasised the fact that stakeholder roles determine their interests and responsibilities.

The roles occupied by *Stakeholders* may be an accident of birth or circumstance “people sit inside power structures just by virtue of them being born and environments that they find themselves in” (P1). As P1 articulated, a *Stakeholder* may have “a couple of hard knocks and lands up living on the street or in your car; it’s just a couple of bad breaks”.

P8 introduced the archetype of the trickster or liminal figure. It is “from a folklore context, is not necessarily something that is good or bad, it's something that kind of plays with the boundaries and dichotomies that we almost live by” (P8). This role is “about being disobedient. So defiance in that way where it's almost saying you're going to play with the rules a bit, or you're going to challenge the norm, or you're going to do things differently, not necessarily in a destructive or harmful, or negative way” (P8).

Some participants provided more philosophical insights into *Stakeholder* roles and identity. P8 likened engagement to a song, “they are providing the lyrics or the story that is being told through the song. Bring someone else in to create the melody, bring someone else in to do the instruments, bring someone else in to listen to the song, someone else to produce the song”.

Some of the participants focused on the self-identity of stakeholders. P1 reflected on the potential impact on the “sense of self” of a man who is “constantly told that I don't matter”. P2 argued that “people usually act in a situation itself consistently with who they are”. P1 advocated for stakeholders having and offering a sense of themselves “If you really want to help, then you go there, and you say, this is who I am, this is what I have, these are the networks I can access, and these are the resources that I have at my disposal”.

Identities may be ascribed to *Stakeholders*. P6 pointed out the perception of communities that from the outside “look very informal and unstructured. But once you enter those communities, you start realising that there's this social economy”. As she said, “It's really around the lens with which you look at a community. Whether you see them as already possessing assets” (P6).

Similarly, people hold certain perceptions about leaders and influencers. P3 said, "Because CEOs are looked at, or these are visionary leaders, and these leaders create the culture and the vision of any organisation and create the overall – they drive and maintain trust and optimal levels for employees to fulfil". P4 reflected that "there's a narrative, especially in the workplace that good leaders, good decision makers, they know what to do, they've got the answers, and that's just no longer the case".

In some stakeholder systems, roles are still very hierarchical. P5 said that the "hierarchy is very important". He spoke of the negative influence on his work of his "boss", the "boss of his boss" (P5) and the CEO and how he uses the hierarchical structure to get things done. He explained that people with authority could speed up decision-making processes. P6 also explained that within certain communities, you need to be "mindful of the structures and the authorities that operate, tribal authorities and so on, because we also know how very powerful these structures are if one wants to resolve something on a community level".

Finally, roles come with rights and responsibilities. As P5 elucidated, "their roles at a certain level of the organisation which gives them a different type of responsibility, and which also gives them a different type of freedom to choose not to respond or choose not to show up".

P1 verbalised her belief that "you have a responsibility to maybe not solve global poverty, but you do have a responsibility to do what you can with the resources that you have to at least help some poor people that you know". P5 addressed responsibility at a team level, pointing out that "there is a basic governance structure, but it doesn't tell you everything. And of course, there are descriptions of responsibilities of every team, but it's never complete", and P2 said that a "country is also responsible for creating an environment where the basic needs of citizens can be met" (P2).

The next sub-theme presents findings relating to *Stakeholder Choice* and intention.

#### 5.3.2.2 Sub-Theme 2.2.2 – Stakeholder Choice

The sense-making framework proposes that *Stakeholder Choice* addresses the innate imperative for *Stakeholders* to exercise their agency and to make decisions based on their beliefs, intentions, motives and priorities.

"Humans have intelligence, intentionality and multiple identities" (P4).

*Stakeholders* seek meaning and significance in their lives (P5). They all have interests and priorities (P3), which are reflected in how they exercise their agency through their choices and intentions. P4 said, "I would say stakeholders would be, in my language, I guess, agents in the complex system, and agents would be anything that potentially has agency, or the potential for agency as it relates to this particular system or problem". She added "They are able to act in the system. I'm thinking about it now, and it's almost – it's they are impacted by or have the ability to impact on the system" (P4).

Intention is why people do things. As P4 posed, it provides the motivation for their choices "we have intent, it's a sense of purpose, it's something we're trying to achieve, it's motivation. It's our motives in a way, so I guess you can see it as motives". The same participant pointed out that intention is not always conscious, but there is always intent behind actions "some people are aware of their intent and other people kind of almost go through life in an unintentional way, but then in that there's also intent" (P4). P1 added, "Motive is – I don't think people are honest with what their real motive is. Either because they're not self-aware enough because they're not honest enough with themselves" (P1).

P8 explained that core cultural concepts like "values, beliefs, norms, behaviours, but also learnt behaviour" are all chosen, and *Stakeholders* can separate from "an established system or society... breaking away from the norms, your assumptions, your expectations". P7 highlighted "the effect that the humans have on that system by choosing stuff".

Not only do *Stakeholders* have the freedom to choose, but they are also compelled to choose. Participants highlighted the fact that choices are based on priorities and intentions. P1 illustrated, "you have to choose between buying oil and maize meal, sending your child to school or being able to afford transport to go to work, but you can't do all three". Some choices are based on preference, not necessity. P4 confessed, "When it comes to sometimes a choice between convenience and doing the right thing, like not going to Woolworth's and buying the thing in the plastic packet, I still end up doing it".

These examples illustrate further that choices are linked to personal priorities, as P4 argued, "so there are competing priorities", and P5 advised, "So I have to make choices, and it's the same prioritising argument". He demonstrated that stakeholders' choices and actions might reflect different priorities "a stakeholder formally agrees..... but then informally doesn't act on it, by not prioritising it" (P5).

In the context of *Stakeholder Engagement* specifically, P6 advised that *Stakeholders* have a "vested interest" in being involved in something which affects them. This personal interest means that "everyone comes in with their agendas and their motives" (P1). Their involvement will be most effective if they have an "affinity for what you are lobbying for" (P6) or "a particular interest and a particular stake" (P6).

P1 emphasised that "stakeholders choose who the other stakeholders are" (P1). P4 corroborated, "Just in the fact that I am engaging stakeholders kind of almost implies that I am the one with the power to choose to engage or not". When it comes to *Wicked Problems*, there are "people who choose to ignore it, and there are people who choose to oversimplify it" (P1).

P1 also suggested that sometimes *Stakeholders* have limited choices. She said, "people sit inside power structures just by virtue of them being born and environments that they find themselves in. You don't choose it, you don't make it, but it just is" (P1). P4 explained that "in

some cases, people are constrained to such an extent that they've lost agency". However, this same participant said that we choose our boundaries (P4), which suggests that some stakeholder constraints may be chosen, not imposed. The choice to endure is related to tolerance: "we are seeing more and more how citizens are no longer tolerant of this" (P6). P4 illustrated that sometimes *Stakeholders* abdicate their choices to powerful others, citing how during the pandemic, "we're waiting for the President, we're waiting for Daddy to tell us to please go down to lockdown level 4 or whatever, we can't just do it ourselves" (P4).

*Stakeholder* actions are related to intentions and choices. As P4 illustrated, "the choice has already been made. Then I think intent starts coming into it because if I want to get this particular change done, I'm not necessarily going to engage the stakeholders that I know are going to be against it". P5 asserted that if some *Stakeholders* "don't agree on something, on the decision that has been made, they can choose to act accordingly". He also advocated that navigating *Wicked Problems* means "Choose your battles" (P5).

In the context of *Wicked Problems*, *Stakeholders* make choices regarding the allocation of resources. For example, funders "choose to donate" (P1). P4 warned, "if we put all of our eggs in one basket, you tend to just waste your resources. So it's much more effective to have multiple – we talk about safe-to-fail experiments". The choice of where to allocate funds may be based on preference "if I were a funder, I would much rather fund 50 grassroots little projects" (P4).

*Stakeholders* also need to make planning and implementation choices. "at some point, one needs to choose either option A or option B" (P6). Deciding to go with option A means losing the option to choose B, a concept known as "opportunity cost" (Blignaut & Aronson, 2020). Choices have other cost implications. "a couple of bad choices" can land someone in poverty (P1). The choice to redo work can "cost a ton of money" (P5). *Stakeholders* need to make choices between solutions "going through is it practical, how much will it cost and all of that as an exercise then also helps people understand why one alternative has been selected above the other" (P6).

The next sub-theme presents the findings in respect of *Stakeholder Power* and how they choose to use it.

#### 5.3.2.3 Sub-Theme 2.2.3 – Stakeholder Power

The sense-making framework proposes that *Stakeholder Power* focuses attention on the power dynamics which are evident in relationships between *Stakeholders*.

In response to a prior contribution from P1, the researcher asked, "Are wicked problems always about resource differentials?". The participant's response was, "Yes, if power is considered a resource" (P1). Power and vulnerability featured as a dichotomous conflict dynamic raised by participants.

Foucault (1982) was a French philosopher still frequently cited for his work on the relationship between power and knowledge. He asserted that societal opposition to power was directly linked to the question of individual identity. He contended that power subjugated. The struggle against power was usually against domination and exploitation, which were driven by the powerful, and subjection, which vested in the powerless. Power is intimately connected to other complex systems such as economic and social processes and is an important consideration when working on *Wicked Problems* (Foucault, 1982; Suoheimo, 2020).

Power is vested differently in different *Stakeholders*, and powerful stakeholders make the rules. As P9 asserted, "stakeholders aren't equal". P1 explained, "when you assert your power over someone, when you assert your dominance over them when you make up the rules of the game, that plays out everywhere". Power structures are inherent in society. Participants 6 and 9 overtly stated that *Stakeholders* are not equal, and P1 considered power to be a commodity which could be traded "I don't know, I think it is. I think power is something you have and people use it.... Yes, it's a currency, it has value. Ja, it is a resource. You can access it, you can buy it" (P1).

Within broader society, power dynamics tend to be structural or systemic. P9 illustrated, "the things of culture and patriarchy we see, the embedded structural things, are quite large".

P1 further argued that in some situations with obvious power divides, "everyone buys into it" and "no one is going to do anything about it, because everyone is equally complicit". So, "it's just the same pattern that just keeps playing out" and "It's a social compact I think that gets passed down from generation to generation" (P1).

*Stakeholders* tend to have a perception of their own power relative to others; as P9 reflected, "learning how to accept your place in that system". Win/ lose dynamics are inevitable, "I think there's always someone who's going to win out of any wicked problem, and someone who's losing or has a lot to lose" (P9), and the powerful require others to be powerless "What is the point of being in power if you have no-one to hold power over?" (P1).

On the one hand, a *Stakeholder* might "say I have power, and then I choose to express it in a way where I will dominate people whom I believe are less than me, not as intelligent as me, not as attractive as me, not as funny as me" (P1). Once in power, they may perpetuate the differentials. P1 illustrated, "Governments do, so if you don't like it, you'll protest, and then we'll either make your protest illegal or actually we don't care, and you'll just disappear, and we'll put you up in an embassy".

Individuals also perceive the limits of their personal power. As P9 observed, "you realise the limits of your own capabilities", the limits of their sphere of control "What can I do, what do I have control over?" (P4) and the limits of their "sphere of influence" (P2). P9 concluded, "no matter how great your organisation is or your movement, you're not going to solve poverty overnight".



Even helping gives *Stakeholders* power, "so we need to help them, but we need to keep them in their place" (P1). P1 further illustrated the power inherent in helping "if I'm being helpful by giving a food parcel or money to someone who knocks on my car window, I'm automatically in a position of power, and I can't help that". She cited the example of "political parties who give food packs to starving people in townships and then pose them for photo ops that they can use in PR exercises" (P1). This raised an unanswered question from the researcher regarding whether it was possible to help without being powerful.

Participants 1 and 9 illustrated the power of the purse strings, "Governments allow them because they get their kickbacks and they get their money and their payment and stuff. So all of it, power dynamics" (P1). P9 cited an example of a large funder who "shut down the project" worth over \$40 million after the local government nationalised 50% of the assets in the sector. P9 demonstrated the power that donors have to dictate *Stakeholder* actions and to withhold resources at will:

"If you're receiving money from a donor to get something done, you need to have deliverables at the end of a two to three or four-year project if you're lucky. You're going to have to really ignore a bunch of things in order to get those targets met."

She went on to say, "it's not always convenient for keeping activities going to acknowledge power differences. It will slow down things a lot" (P9). Even the perception of progress in a *Wicked Problem* may depend on the stakeholder's proximity to the epicentre of the problem "it's only the people who are privileged in a certain way who are moving the understanding of solving the problem, in a certain way" (P9).

Power may be conferred on people through hierarchies and titles. P5 observed that a project assumes priority "if the boss of my boss initiated the project". He added, "so hierarchy is very important" (P5). However, power structures are not always clear or overt "there will always be decisions that have to be made, and it's unclear who can or cannot make the decision" (P5).

*Stakeholder Power* is closely related to a perception of *Stakeholder* rights. Participants indicated that certain *Stakeholders* have or assume greater rights or influence by dint of power. P1 proposed that powerful *Stakeholders* should give more vulnerable individuals the "right to say thanks, but no thanks". She also questioned, "How is that even okay that you have the right to go into a country that you don't even come from and literally, blatantly in full daylight, steal water from these people?" (P1).

Participants observed that roles might define the power and privilege that *Stakeholders* have to act within the system. Their autonomy may be defined as "you have the right to tell me how you want me to use what I have to help you" (P1). Roles may privilege access to information (P6) and give some individuals the power to define boundaries (P4), effect change (P2), and support ideas or release resources (P5). They also prescribe decision-making rights

in some environments "I would approach him or her, say you cannot make this decision because this part only I can decide on" (P5).

Potential power differentials were identified in stakeholder selection, admission and participation processes, as P1 illustrated:

"Well, I suppose it depends if those in power or whatever are the ones who say, okay, we'll allow you to be stakeholders. The power dynamics are already there. So you agree to be a stakeholder, but the language and the tone and the unwritten rules and everything are already pre-existing, and so you're having to fight that first to even get on the same playing field as everyone else. You're already on a back foot, and that's how it's designed."

Differentials were also evident in the development of vision, culture, and implementation. P3 explained that CEOs "influence innovation; they are the think tank. They make company decisions, they influence expansion, they align initiatives that align itself with the expansion strategies" (P3). The "sense of unequal power" and "sense of dominance" inhibit effective *Stakeholder Engagement*, according to P6.

Power can be used for nefarious outcomes. P1 observed, "so when you assert your power over someone, when you assert your dominance over them when you make up the rules of the game, that plays out everywhere". Some *Stakeholders* use power for personal gain; stealing, gaining kickbacks, eliciting favours and creating an undue sense of obligation (P1). They exert their dominance (P6) through mechanisms such as bullying (P5), demeaning, disrespecting and pitying the vulnerable (P1).

Ultimately, as these participants observed, power can and ought to be used to effect positive change on the *Wicked Problem*. P2 explained the role powerful people can play in this outcome:

"Being able to effect change on the problem and solve it. And I'm in a way thinking about what's the most efficient way of dealing with a wicked problem, and I just think that if it's wicked, which means it also changes over time, you need to address it ideally from the most impactful level. And the most impactful level is those people, group actors who can do the most in the shortest amount of time."

Finally, P9 defined a key question "In whatever wicked problem we're looking at, who is the most powerful currently and who is the least powerful?".

The next sub-theme presents findings which provide insight into *Stakeholder Vulnerability*.

#### 5.3.2.4 Sub-Theme 2.2.4 – Stakeholder Vulnerability

The sense-making framework proposes that *Stakeholder Vulnerability* focuses attention on the relative powerlessness and dependence of some *Stakeholders*.

Vulnerable *Stakeholders* tend to be devalued, shamed “you have to take that food because your children won’t eat, but every time you take it, it shames you” (P1), disrespected “, you’re completely disrespecting them” (P1) and disenfranchised “I don’t know what you would call them, the disenfranchised” (P1).

They tolerate long-term, paralysing deprivation (P1), pain (P2), poverty (P1), suffering (P1) and death (P1). They are overworked and overburdened (P5) to the point of desperation (P6). The odds seem to be stacked against them, and they often have to expend enormous effort and limited resources for minimal progress or just to participate, whether on an equal footing or not. As P1 stated, "for the vast majority that it's a one step forward, two steps back thing you know" and "you're having to fight that first to even get on the same playing field as everyone else".

The vulnerable are powerless and unable to mobilise resources. Not everyone can be responsible for *Stakeholder Engagement* “because I think you need to have the necessary resources to take ownership of a problem” (P1). They further “don’t have equal access to talk about, discuss, dissect the issue” (P9), which reinforces their “lack of agency” (P4). The problems and lack of resources “leaves a person feeling inadequate” (P6), making them “have to rely on someone” (P1) and be “completely dependent on whomever the power that be is” (P4).

Vulnerable *Stakeholders* are treated as if "most of them are stupid" (P1) and expected to feel endlessly grateful. "Get the person on the receiving end to reciprocate or to do something, or to grovel or to be eternally thankful" (P1). This dependence further disempowers them and perpetuates "learned helplessness, a learned powerlessness" (P4).

The dependence of the vulnerable empowers others, and they end up expecting to be told what to do. "He needs to tell us what to do" (P4). Power differentials deny the powerless access (P1; P6; P8; P9). As P1 explained, "and so it is, it's a system of power, it's a system of access", and "we will decide who gets access, we will decide how you get into school and who gets to go to school and what you get taught. We will decide how you can access food and how you can't" (P1).

In addition, the most vulnerable *Stakeholders* "don't have equal access to talk about, discuss, dissect the issue" (P9) and have "fewer platforms to share their experiences of climate change" (P9). As such, "there can often be a challenge of people not feeling represented or not feeling heard" (P6) while others speak for them. This becomes more pronounced when there are language barriers, and "people tend to use phrases and so on which excludes people" (P6). P1 affirmed *Stakeholders* who assert, "We need to stop letting people talk for us."

Vulnerable groups may be invisible to others who simply don't care, "it's almost like some groups are invisible to me" (P4) and "actually we don't care" (P1). Sometimes they are

deliberately side-lined and ignored; as P1 commented, "we'll lock you up, or actually we don't care, and you'll just disappear" (P1).

Whilst *Stakeholders* are not all equally affected by *Wicked Problems* (P9), in the face of these issues, all *Stakeholders* can be left feeling "it just feels helpless" (P8) or getting to the "point of being overwhelmed" (P7).

P9 argued that the most vulnerable should be prioritised in *Stakeholder Engagement Processes*, ensuring "a tangible improvement for potentially the most vulnerable stakeholders, the most powerless stakeholders".

Finally, it should be recognised that communities perceived to be deficient do, in fact, have more ability than may be perceived, as P6 presented:

"Whereas if we look at how communities function, often from the outside, they look very informal and unstructured. But once you enter those communities, you start realising that there's this social economy that people use to solve their everyday problems, and that they lean on each other, that they support each other's initiatives, that they use the little bit of assets that they have in their hands, and they make something of that."

As the presentation of findings in respect of *Stakeholders* has been concluded, this section has provided context for the next meta-theme: *Stakeholder Engagement*.

#### **5.4 Meta-theme 3: Stakeholder Engagement**

The tertiary sense-making framework question (SFTQ3) explored in this section is:

How could the concept of stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?

Answering this question contributes to answering the third secondary research question.

In section 3.6, **Table 13** summarised the conceptual framework developed in that chapter. An extract from **Table 13** is duplicated below for ease of reference, illustrating the alternative framing of stakeholders in the conceptual framework. Concepts highlighted in blue are similarly portrayed in the sense-making framework, although the nomenclature or position in the framework may have changed slightly. Concepts highlighted in red are reframed in the sense-making framework. Concepts highlighted in yellow have been excluded from the sense-making framework. 'Five forms of stakeholder engagement' has been expanded into five separate themes, each with its sub-themes.

**Extract from Table 13 The Conceptual Framework (Duplicated)**

Alternative Framing for Stakeholder Engagement				
<b>Five forms of stakeholder engagement</b>				
Stakeholder engagement describes five distinct but interrelated concepts.				
Stakeholder interactions	Stakeholder investment	Leading stakeholders	Stakeholder experience	Stakeholder engagement process

The sense-making framework proposes that *Stakeholder Engagement* is used to represent five distinct but interrelated concepts: Firstly, *Stakeholder Engagement* is interaction between *Stakeholders* and other entities. Secondly, it is investment of personal resources. Thirdly, it is a positive experience related to involvement. Fourthly, it is a process of developing commitment. Finally, it is action taken by leaders to involve other *Stakeholders*. Five themes and twenty-four sub-themes supported this proposition.

**Table 29 The Emerging Sense-making Framework Section C**

presents the third meta-theme of the sense-making framework. A narrative description follows this summary. Concepts highlighted in blue were similarly portrayed in the conceptual framework, although the nomenclature or position in the framework may have changed slightly. Concepts highlighted in green were not represented in the conceptual framework.

**Table 29 The Emerging Sense-making Framework Section C**

Meta-theme 3 - Stakeholder Engagement				
<b>Theme 3.1 - Stakeholder Interaction</b>				
Sub-theme 3.1.1 Interaction Connection	Sub-theme 3.1.2 Interaction Intention		Sub-theme 3.1.3 Interaction Action	
<b>Theme 3.2 - Stakeholder Investment</b>				
Sub-theme 3.2.1 Social Investment	Sub-theme 3.2.2 Physical/ Practical Investment	Sub-theme 3.2.3 Intellectual Investment	Sub-theme 3.2.4 Spiritual Investment	Sub-theme 3.2.5 Emotional Investment
<b>Theme 3.3 - Stakeholder Enrolment</b>				
Sub-theme 3.3.1 Social Enrolment	Sub-theme 3.3.2 Physical/ Practical Enrolment	Sub-theme 3.3.3 Intellectual Enrolment	Sub-theme 3.3.4 Spiritual Enrolment	Sub-theme 3.3.5 Emotional Enrolment

Theme 3.4 - Stakeholder Experience				
Sub-theme 3.4.1 Social Experience	Sub-theme 3.4.2 Physical/ Practical Experience	Sub-theme 3.4.3 Intellectual Experience	Sub-theme 3.4.4 Spiritual Experience	Sub-theme 3.4.5 Emotional Experience
Theme 3.5 - Stakeholder Engagement Process				
Connection Process		Intention Process		Action Process
Collaborative Process		Iterative Process		Adaptable Process

#### 5.4.1 Theme 3.1 – Stakeholder Interaction

In section 5.4,

#### Table 29 The Emerging Sense-making Framework Section C

represented the third meta-theme of the emerging sense-making framework. An extract from

#### Table 29 The Emerging Sense-making Framework Section C

is duplicated below for ease of reference, illustrating the theme of *Stakeholder Interaction* and its three sub-themes.

#### Extract from Table 29 The Emerging Sense-making Framework Section C (Duplicated)

Meta-theme 3 - Stakeholder Engagement		
Theme 3.1 - Stakeholder Interaction		
Sub-theme 3.1.1 Interaction Connection	Sub-theme 3.1.2 Interaction Intention	Sub-theme 3.1.3 Interaction Action

The sense-making framework proposes that *Stakeholder Interactions* were the individual exchanges which happened between *Stakeholders* and other entities. This proposition is supported by the perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341). A new fractal pattern was observed in *Stakeholder Interaction*. Connection, intention and action were observed in both Stakeholder Interaction and Stakeholder Process. As P10 described, "engagement leads to lots of little baby engagements".

*Stakeholder Engagement* occurs in interactions (Bakker & Demerouti, 2016), and these interactions involve intention (Azlan *et al.*, 2020), connection (Jonas *et al.*, 2018; Kahn, 1990) and action (Jonas *et al.*, 2018). Findings from the individual interviews supported this framing of *Stakeholder Engagement* as interaction. P2 was not English speaking and used the word exchange in place of the word interaction. However, in context, she described what this study is labelling 'interaction'. She explained the pervasiveness of interaction, stating during a

discussion about the nature of *Stakeholder Engagement*, "So I think exchange, in general, can have all levels of forms", "Exchange for me can be all types of exchange", and further, "It's everything exchange" (P2). Thus the range of possible *Stakeholder Interactions* is extensive.

Participants described personal internal interactions or interactions with self, such as when P1 said, "you convince yourself" and "they're not honest enough with themselves", and P6 said, "order what's going on in your mind and clarify one's thinking".

Interaction with other people was justified by P4, who asserted that "human systems are made up of humans, and because we're always interacting with each other". P5 illustrated *Stakeholder Interaction* with projects and work, stating, "I have also had projects that my team worked on and then it was brought up to senior management for approval". Interaction with information was mentioned by P2 when she stated that *Stakeholder Interaction* "has components from information exchange".

P4 specifically reflected on *Stakeholder Interaction* with *Wicked Problems* stating, "and in that interacting with the problem you can start influencing or shifting, moving it into a different state". She highlighted the interactional nature of these problems, stating.:

"If you see it as an emergent pattern with many interacting – I don't want to call them causes necessarily, but influences and variables, then it means that there are multiple entry points. So you can become quite experimental and start thinking about if I tweak this variable, or if I shift that constraint, what happens to the pattern? So you can almost start dancing with it instead of trying to solve it. And in that interacting with the problem, you can start influencing or shifting, moving it into a different state."

Participants also referenced different interactions with and through technologies such as presentations (P5), conversations, face-to-face engagements, newsletters, intense dialogues (P6), discussions, workshops, surveys and interviews, assemblies and media inputs (P2).

*Stakeholders* bring their history into interactions, as P8 explained:

"Coming with those world views and mental models and stories that you've established in your mind and me coming from middle-class suburbia, and academic background and I'm here with an anthropology group, like those all shape the way that I engaged with the space."

Conversely, interactions change *Stakeholders*. P7 provided an example "it changes their mindsets because they're continuously interactively listening to somebody else". Interactions can also bring about change in systems. P4 provided an example of how this worked in regard to corporate culture "Culture is something else; it emerges from all of the thousands of little interactions between people, the conversations they're having, the environment they're in, and out of this emerges a corporate culture."

The sense-making framework proposes that *Stakeholder Interaction involves three dimensions: Interaction Connection, Interaction Intention and Interaction Action*. These three sub-themes will be presented in the next three sub-sections.

#### 5.4.1.1 Sub-Theme 3.1.1 – Interaction Connection

The sense-making framework proposes that *Interaction Connection* describes all the ways in which *Stakeholders* make contact with other entities in their interactions.

Connection is the dimension of interaction which brings *Stakeholders* into contact with other elements of the complex socio-material (Clarke & Ashhurst, 2018: 153) of the *Wicked Ecology*, discussed in section 2.5. As P4 reflected, *Stakeholders* are connected in the entanglement of the system or problem. Most of the participants' observations emphasised connections with people but did not discount connections with non-human elements of the system.

*Interaction Connection* seems to be highly dependent on access. P1 illustrated how some *Stakeholders* prevent others from connecting with elements of the system. She observed, "They gate it, so they gate the access. They control who is and who isn't, and because they control that, they control how you're able to engage" (P1).

P8 and P9 demonstrated that the closeness of *Interaction Connection* could range from distance to immersion "beyond just participating or engaging or being involved from the inside perspective, you also need to take a step back and look at things from the outside objectively from a distance" (P8), and "let's remove ourselves from the context, take ourselves outside of conditions, break away from what we know and challenge the norm" (P9).

Changing the connection changes the interaction. P4 urged the need for *Interaction Connection* across disciplinary and national boundaries. P6 proposed that it was helpful to "rather take a step down or a step backwards and do it in the territory of the person that's affected rather than in your own territory" (P6). Different connections create different meanings, as P8 observed:

"So we engaged with a whole bunch of different people. And we got a completely different story than what we've been told officially by the media, and just being in that space, being at the border, seeing where people cross over, is it the Crocodile River, I can't remember, crossing over the river."

The names and narratives attached to entities alter how people connect with them, as argued by P8, who observed that "in saying that poverty is a wicked problem, it might put pressure on people who are in situations of poverty to resolve the problem themselves" and "in shifting the narrative and saying, no, it's not about boys will be boys, it's about boys will be accountable for their actions and not harm women" (P8).

*Interaction Connection* enables many different things to happen, including getting to know each other, conversing, troubleshooting, dissipating conflict (P6), sharing information,



disagreement (P5), exploring values and forming relationships (P7). Individual responsiveness within an interaction may indicate the depth of engagement "If they're coming back with getting into a debate and showing interest, then they are engaged" (P10).

P9 recommended that connections should also somehow be fostered with future *Stakeholders*. She asked:

“Who would be future stakeholders? It’s worth looking into that and not just current stakeholders, but who will be future stakeholders and how close are they – are they future stakeholders by twenty-five years or future stakeholders by five years? That makes a big difference.”

In addition to connections with people, P6 and P8 spoke about visiting different communities, and P7 and P8 spoke about visiting physical sites. P4 encouraged *Interaction Connection* with indigenous knowledge, and P8 described the experience of connecting through observation.

The next sub-section explains findings in relation to the next sub-theme, *Interaction Intention*.

#### 5.4.1.2 Sub-Theme 3.1.2 – *Interaction Intention*

The sense-making framework proposes that *Interaction Intention* is why *Stakeholders* interact with other entities and the reasons underpinning their interactions.

Sub-section 3.5.1.1 of the conceptual framework explained that the effectiveness of an interaction depends on its meaningfulness (Kahn, 1990) to each *Stakeholder* as well as how the interaction relates to their personal drives and motivations (Harmeling *et al.*, 2017; Vivek *et al.*, 2012).

A number of alternative concepts were identified as akin to intention in sub-section 3.4.2.1 including purpose, aims, objectives, choices, plans, goals, desires, motives (Sofhauser, 2016), expectations, wants (Jarrett, 2014: 17) and decisions (Fan, 2014).

Each *Stakeholder* brings their personal intentions into their interactions, and the quality of each interaction depends in part on the extent to which these expectations are mutually compatible and met. The choice of content will also be framed by *Stakeholder Intention*. These ideas were articulated by P2:

“When I think about expectations, I think also about – I think it has a lot to do also with frames of reference.....Setting joint expectations means agreeing on a space of possibilities that can be discussed, which also allows to explicitly adjust the fact that expectations are not met, and one should think outside of that box of possibilities.”

The decisions made within interactions are related to intentions (Fan, 2014). As P9 explained, choosing to achieve certain objectives means having to ignore others. Whilst a win-win

outcome for an interaction might be ideal, "sometimes there just is situations where you have to accept the trade-off" (P6).

P4 explained that the decisions which *Stakeholders* make may not always be rational:

"We make decisions based on rational thinking and weighing our pros and cons, but I think more often than not – I think the theory, like some of what Dave Snowden says, for example, is, we make decisions based on pattern matching. So with all of our experiences, the stories we've heard, things we've come across, we've got patterns in our long-term memory that when we're confronted with something new, we almost do like a first fit pattern match, oh, it's one of those, and then we make a decision."

The intention which frames an interaction will also impact its quality. As P2 explained, "a genuine invitation for exchange means that to the best of someone's ability, the format of the exchange is tailored towards getting a representative and high-quality input from the stakeholders". P8 added that motivation will also impact "why you're playing the way that you're playing. What is your tactic here? What is your thinking behind your actions?".

#### 5.4.1.3 Sub-Theme 3.1.3 – Interaction Action

The sense-making framework proposes that *Interaction Action* encompasses the activities and behaviours which occur during interactions between *Stakeholders* and other entities.

Interactions involve action (Harmeling *et al.*, 2017; Vivek *et al.*, 2012) and are a function of personal availability (Kahn, 1990). The *Interaction Action* sub-theme focused on what people do in their interactions and how they go about "contributing or acting in" the situation (P8). As P7 added, "doing their hard stuff" or "doing different things" (P7) or "doing what you would call good" (P3). P10 stated that "I think once they're engaged, then they start taking part in the activities, reading material, responding, talking back or moaning, whatever. So they are no longer passive, they're active". She added that "engagement is visible" (P10).

In interactions, people act and are acted upon. As P8 stated, "when I think of engagement, I think of something that's like mutual or not someone who's acted on but has the ability to act as well". Even presence is action. P4 alluded to this, stating, "There can never be like an independent or an objective observer. You're always part". Even "waiting for things to happen and not doing anything about it" (P8) is also participation.

Stakeholder action has an impact. P1 provided examples of some stakeholder impact on other, more vulnerable actors, such as "in my interactions with them I dominate conversations, I find ways to belittle them, I do all of that stuff" (P1). Action can change systems. As P4 explained, "Emergence comes from all of the various agents in that system acting on local information.". Acting together can change outcomes, "engaging in the sense of involving or giving people the agency to act" (P8), eliciting the help of others (P7) and harnessing "collective action" (P4), opening the possibility to "do something better jointly" (P7).

Action is afforded by the environment. The environment makes certain actions possible. P4 articulated, "How do we create environments where there's affordances for engagement; there's affordances for action, more than what there was before?". The environment also makes some actions more convenient. As P4 illustrated, "when it comes to sometimes a choice between convenience and doing the right thing, like not going to Woolworth's and buying the thing in the plastic packet, I still end up doing it".

Actions are seen as evidence of who *Stakeholders* are. They may be judged by their actions. As P4 commented, "if you make a mistake, if you make the wrong decision, then you are incompetent". Not only might actions reveal competence, but P1 proposed that they are connected to motives "you're not really doing it for them, you're doing it for how you will feel, and that's motive".

When *Stakeholders* interact, they invest their personal resources in the interaction. The next theme presents findings which support *Stakeholder Engagement* as personal investment.

#### 5.4.2 Theme 2.2 – Stakeholder Investment

In section 5.4,

#### Table 29 The Emerging Sense-making Framework Section C

represented the third meta-theme of the emerging sense-making framework. An extract from

#### Table 29 The Emerging Sense-making Framework Section C

is duplicated below for ease of reference, illustrating the theme of *Stakeholder Investment* and its five sub-themes.

#### Extract from Table 29 The Emerging Sense-making Framework Section C (Duplicated)

Meta-theme 3 - Stakeholder Engagement				
Theme 3.2 - Stakeholder Investment				
Sub-theme 3.2.1	Sub-theme 3.2.2	Sub-theme 3.2.3	Sub-theme 3.2.4	Sub-theme 3.2.5
Social Investment	Physical/ Practical Investment	Intellectual Investment	Spiritual Investment	Emotional Investment

The sense-making framework proposes that *Stakeholder Investment* is the contribution of personal resources by *Stakeholders* within the context of the problem ecology. *Stakeholders* invest their social, intellectual, spiritual and emotional (SPISE) resources when they engage in interactions. This proposition is supported by the perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341). Another repeating fractal pattern is observed in *Stakeholder Investment*. Stakeholders invest personally out of their social, physical, (or practical) intellectual, spiritual or emotional being.

*Stakeholder Engagement* refers, among other things, to the personal investments which *Stakeholders* make in interactions (Kahn, 1990). The personal SPISE resources which *Stakeholders* have available to invest (Beauchemin *et al.*, 2019) were outlined in sub-section 5.3.1.15.3.1. That sub-section explained the complex nature of *Stakeholders*, which may be hidden beneath the overt ways in which they "show up" (P4).

*Stakeholder Investment* is akin to the concept of buy-in or involvement. As P6 proposed, "if they buy and they believe, and they champion, I think it goes a long way". P1 also addressed buy-in, observing that "everyone buys into it". She was referring to the collusive engagement patterns which keep *Stakeholders* trapped in the power systems discussed in sub-section 5.3.2.3. P6 proposed that *Stakeholders* should not just contribute but be "better placed to contribute more meaningfully". P1 said, "by choosing to do this means I'm all in". P10 summarised this idea "Stakeholder engagement is work."

The sense-making framework proposes that *Stakeholder Investment* may take five forms: *Social Investment*, *Physical or Practical Investment*, *Intellectual Investment*, *Spiritual Investment* or *Emotional Investment*. These five sub-themes will be presented in the next five sub-sections.

#### 5.4.2.1 Sub-Theme 3.2.1 – Social Investment

The sense-making framework proposes that *Social Investment* is the contribution of personal social resources by *Stakeholders* within the context of the problem ecology. These investments are rooted in the *Social Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in their relationships and economic and organisational interactions.

*Stakeholder* presence and *Social Investment* are evident in how *Stakeholders* play their part (P8) and cross boundaries to "make friends" (P5) or to "enter those communities" (P6). During interactions, they demonstrate their "willingness to listen" (P6) and "make themselves heard" (P2) as they "discuss a lot" (P2). They also "take on a more active process of responsibility" (P2) and "support each other's initiatives" (P6).

When people invest personally in interactions, they usually do so in a particular role or identity, as explained in sub-section 5.3.2.1. By way of example, they may invest socially as leaders (P7) or gatekeepers (P6). They bring their context with them, such as "stories that you've established in your mind" (P8) and social and academic backgrounds (P8). These "shape the way that I engaged with the space and thought about the people in that space" (P8).

A personal *Social Investment* may involve being helpful (P1; P6), "generous with your time and resources" (P9), making "financial investments or many hours of people" working (P5), and an understanding "that you are there to serve them" (P1). It may mean that the *Stakeholder* will "use their influence and their networks, and their privilege to open up access to resources" (P1). *Stakeholders* also cannot help influencing others. As (P7) said, "what they do is influencing what those other people do".

The *Social Investments* which *Stakeholders* make in their engagements are limited by their personal resources. These limits may mean “having to fight” (P1) and to “push where you have capacity to” (P9), but the potential exists that they may run out of energy to keep pushing (P9).

Specific social skills which shape interactions might include "negotiation skills" (P6) or the ability to create an environment (P4) or gain a "deep understanding of the context" (P6) or create a "seat at the table" (P1).

Having presented findings which support the sub-theme of *Social Investment*, the researcher will proceed to present findings which demonstrate how *Stakeholders* engage through *Physical or Practical Investment*.

#### 5.4.2.2 Sub-Theme 2.2.2 – *Physical or Practical Investment*

The sense-making framework proposes that *Physical or Practical Investment* is the contribution of personal physical resources by *Stakeholders* within the context of the problem ecology. These investments are rooted in the *Physical Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in the tangible contributions they make in interactions through physical activity.

Stakeholder presence and *Physical or Practical Investment* are evident in their actions. P1 illustrated how some *Stakeholders* “get up, and they make the soup, and they make the sandwiches, and they feed the kids”. They “just do it” (P1). Small investments like putting “chemicals in the toilet” can be significant (P6).

When people invest personally in interactions, they usually do so in a particular role or identity, as explained in sub-section 5.3.2.1. By way of example, they may invest physically or practically as executors (P5) or technicians (P9). Practical investment impacts the system, and *Stakeholders* need to get feedback (P4; P6) which allows them to “make adjustments” (P6) to future actions. It is important for *Stakeholders* to be aware that even an “observer has an effect” (P4).

A personal *Physical Investment* happens in "time and space" (P4). It may involve being immersed in a situation (P6; P8), "visits to each other's sites" (P7) or, as P8 illustrated, "actually going to the holding cells where people who get arrested get taken". This kind of *Physical Investment* enables *Stakeholders* to “understand where that problem is located” (P6).

The *Physical or Practical Investments* which *Stakeholders* make in their engagements are impacted by their choices and limited by their personal resources. Sometimes people are willing to invest their efforts in one task but not in another. As P4 demonstrated, "those same people would be out there every Saturday fixing potholes, but this dirty dam can't do anything".

There is benefit in being able to "accept what they bring to the table, and you build on top" (P2) and in considering how "you're going to do things differently" (P8). There may also be a need to practically "identify gaps in what needs improvement" (P6). Ultimately practical investment involves a time commitment. It means, "Pick your battles, be very self-aware of the resources you have, and be generous with your time and resources" (P9).

Having presented findings which support the sub-theme of *Physical or Practical Investment*, the researcher will proceed to present findings which demonstrate how *Stakeholders* engage through *Intellectual Investment*.

#### 5.4.2.3 Sub-Theme 2.2.3 – *Intellectual Investment*

The sense-making framework proposes that *Intellectual Investment* is the contribution of personal intellectual resources by *Stakeholders* within the context of the problem ecology. These investments are rooted in the *Intellectual Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in the cognitive value that they add to interactions.

Stakeholder presence and *Intellectual Investment* are sometimes invisible. As P6 explained, the "process happens cognitively, and you don't always express these". However, they are evident in the "explanations or assumptions behind your reasoning" (P8). *Stakeholders* bring "diversity of perspective, and I think we need to show up with humility and be willing to change" (P4).

When people invest personally in interactions, they usually do so in a particular role or identity, as explained in sub-section 5.3.2.1. By way of example, they may invest intellectually as information providers (P6) or planners (P7). Their intellectual contribution will probably be influenced by their mindsets (P4), "mental models and stories", or their "academic background" (P8). Usually, "you've got perspectives on it" (P6), and *Stakeholders* react "out of their own perspective in that particular situation" (P2).

The investment of intellectual resources is required for making decisions. P7 observed that "normally you have to make a decision". Ideally, *Stakeholders* will "provide people with the information that they need so they can take an informed decision" (P6) because good decision-making involves providing "accurate information, not minimising information or leaving out certain information" (P6). *Stakeholders* will also ideally invest time to consider "how much will it cost" and "the pros and cons and to try to contemplate the risks" (P6).

P4 observed that sometimes decision-making processes are a formality because "somebody has already decided", and they bring that decision into the interaction (P4). Either way, "agreement or disagreement" impacts group decision-making (P5). P4 observed that there is a risk of being too rigidly invested in a decision, "I will stick with it, even though the evidence is suggesting that it's not right" (P4).

A personal *Intellectual Investment* may involve helping other *Stakeholders* to "articulate" solutions (P6) or "frame it to get majority support" (P2), or "measure the options" and "choose between options in a sensible way" (P7). It may mean being "involved in the rationalisation" to categorise information and reduce options (P7) or being able to formulate "a question to show my logic, and hopefully open up his mind to listen to the explanation" (P5). The hard work is being able to "understand the opposing views and perspectives" (P6).

In the context of *Wicked Problems*, investing intellectually means dealing with the complexity to "understand all of those interacting parts within the ecosystem that it works in" (P8). P7 observed that when outcomes don't meet intentions, you need to change your thinking.

P6 stressed the importance of sometimes "just trying to quieten your mind a little bit and just draw some form of bare scaffold of these are the things I need to contemplate, just the stuff that mulls around in your head" (P6).

The *Intellectual Investments* which *Stakeholders* make in their engagements are limited by their personal resources "Often one doesn't know anything, or at a minimum much less than one thinks" (P2). P6 volunteered that when *Stakeholders* feel overwhelmed or anxious, "Finding a way to ground yourself, like I've mentioned, and mapping things out and putting it on a piece of paper helps order what's going up in your mind and clarifies one's thinking". "

Finally, *Stakeholders* invest intellectually when they contribute intellectual skills such as "suspending your judgement, your assumptions" (P8), being able to "challenge the norm" (P8) and being able to "change a lot" (P2). *Stakeholders* ideally also invest a "strong sense of curiosity", and stories support stakeholders' "ability to imagine and to reason and to make sense" (P8).

Having presented findings which support the sub-theme of *Intellectual Investment*, the researcher will proceed to present findings which demonstrate how *Stakeholders* engage through *Spiritual Investment*.

#### 5.4.2.4 Sub-Theme 2.2.4 – *Spiritual Investment*

The sense-making framework proposes that *Spiritual Investment* is the contribution of personal spiritual resources by *Stakeholders* within the context of the problem ecology. These investments are rooted in the *Spiritual Complexity* of *Stakeholders*, as presented in sub-section 5.3.1.1, and evident in the belief, conviction, motivation and commitment that they bring to their interactions.

Stakeholder presence and *Spiritual Investment* are evident when they "act consistently with who they are" (P2) and when they "buy in and they believe" (P6). When people can "see themselves in, or identify with" a problem, they can own it (P9). When they "know that those children are going to school hungry" and they "know that those children are probably going

into a home with no food in the cupboards", then "they can't not do something" (P1). They practise "honouring what you've set out to do" (P6).

The beliefs which *Stakeholders* bring may be informed by others knowing "experience in other areas of their life where this was true, or they've had past experiences where this was the case" (P8). *Stakeholders* will "determine what risks they can live with and what they are not willing to compromise" by "agreeing on those principles" (P6). On the other hand, at times, they need to be "willing to compromise at some stage so that the decision can be made" (P6).

When people invest spiritually in interactions, they usually do so in a particular role or identity, as explained in sub-section 5.3.2.1. By way of example, they may invest as elders (P6) or champions (P6). *Stakeholders* who invest from a spiritual foundation can be expected to "be very upfront, honest and ethical" (P6), to respond to the "need for inclusivity", "value the diversity," and "show up with humility", and to "not show up with hubris and arrogance" (P4).

Investment of spiritual resources in interactions involves choice. The choosing nature of stakeholders was highlighted by participants and was explained in sub-section 5.3.2.2. As P7 explained, "whatever you're seeing in front of you" can be traced "back to some values that people have entrenched". As P4 asserted, when *Stakeholders* act, "There's a choice aspect there as well. What do we choose?".

The investments which *Stakeholders* make in their engagements are limited by their personal resources. Lack of conviction may result in ambivalence. As P5 illustrated, "if he's in a room with his boss, he will support it, but then as soon as his boss is not in the room, then he'll just openly say, I think it's a bad position". A lack of compassion for people will allow some organisations to "believe that they're entitled to what they can extract" (P1).

Specific spiritual skills which shape interactions might include "meaning making and finding meaning" (P8) and the ability to "interrogate their motives" and "make sure you're here for the right reason" (P1). It might mean developing "the resilient stuff to navigate this uncertain sea" (P7) or entering "into a state of liminality where those rules and structures and things don't apply to you anymore, you're shifting through some kind of state of change and transforming and transitioning to something else and into something else" (P8).

Having presented findings which support the sub-theme of *Spiritual Investment*, the researcher will proceed to present findings which demonstrate how *Stakeholders* engage through emotional investment.

#### 5.4.2.5 Sub-Theme 2.2.5 – Emotional Investment

The sense-making framework proposes that *Emotional Investment* is the contribution of personal emotional resources by *Stakeholders* within the context of the problem ecology. These investments are rooted in the *Emotional Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and evident in the feelings and attitudes which they bring to interactions.



Stakeholder presence and *Emotional Investment* are evident in how they “really deeply care about this problem” (P1) and “showing in a tangible way that they care and that it matters” (P2). When *Stakeholders* are emotionally invested, there is a connection “on an emotive level” (P8) and “emotions run high” (P6). A personal *Emotional Investment* may involve a deep desire “really wanting to learn, really wanting to and being open to changing” (P4).

When people invest personally in interactions, they usually do so in a particular role or identity, as explained in sub-section 5.3.2.1. By way of example, they may invest emotionally as carers or helpers (P1). This *Emotional Investment* may begin when they have “optimism and energy” (P9) and “feel they could have a meaningful impact on it if they feel like it's something that they can change for the better, the greater good” (P8). This kind of investment shows others that there are “people that care about them” (P1).

The *Emotional Investments* which *Stakeholders* make in their engagements are limited by their personal resources. P2 urged that *Stakeholders* should “assume that whatever someone brings into a situation is the best they were able to bring”. P10 corroborated, “Whether that interest is positive or negative, they're engaged.”. She added, “That they are not happy doesn't detract from the fact that they're engaged.” (P10). P6 pointed out that *Stakeholders* are not all able to “express what they are feeling in the language that they are most versed in” (P6).

P7 pointed out that people participate and are “keen and everything is fine” until it comes to implementation, which is a “complete bugger”. P9 added that “they arrive very pumped and ready to change the world” but within a short while realise “there's a lot more that needs to be done” (P9). They might end up reflecting, “How are we going to get this done? It was exhausting just to get to this point.” (P9).

Specific emotional skills which shape interactions might include “changing their attitudes” (P7) and “seeing the human emotion behind it” (P8), sensitivity (P6), empathy (P6) and the ability to make work exciting (P5) and fun (P7).

Theme 2.2 presented findings in support of *Stakeholder Engagement* as investment by *Stakeholders* in interactions. The next sub-section presents findings which demonstrate that *Stakeholders* also use their SPISE resources to enrol or encourage investment by other *Stakeholders*.

### **5.4.3 Theme 2.3 – Stakeholder Enrolment**

In section 5.4,

#### **Table 29 The Emerging Sense-making Framework Section C**

represented the third meta-theme of the emerging sense-making framework. An extract from

#### **Table 29 The Emerging Sense-making Framework Section C**

is duplicated below for ease of reference, illustrating the theme of *Stakeholder Enrolment* and its five sub-themes.

**Extract from Table 29 The Emerging Sense-making Framework Section C (Duplicated)**

Meta-theme 3 - Stakeholder Engagement				
Theme 3.3 - Stakeholder Enrolment				
Sub-theme 3.3.1	Sub-theme 3.3.2	Sub-theme 3.3.3	Sub-theme 3.3.4	Sub-theme 3.3.5
Social Enrolment	Physical/ Practical Enrolment	Intellectual Enrolment	Spiritual Enrolment	Emotional Enrolment

The sense-making framework proposes that *Stakeholder Enrolment* is the use of personal resources by *Stakeholders*, whom the study has designated as leaders, specifically intended to elicit investment by other *Stakeholders* within the context of the problem ecology. In the context of this study, leaders were found to use their social, physical, intellectual, spiritual and emotional (SPISE) resources to enrol others in interactions. This proposition is supported by the perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341). Another repeating fractal pattern was observed in *Stakeholder Enrolment*. Stakeholders enrolled others by social, physical, (or practical) intellectual, spiritual and emotional means.

*Stakeholder Engagement* refers, among other things, to the actions taken by leaders to involve other *Stakeholders* in the problem ecology (Lehtinen & Aaltonen, 2020). The personal SPISE resources that leaders can use to engage others (Beauchemin et al., 2019) were outlined in sub-section 5.3.1.1, which explained the complex nature of *Stakeholders*.

The sense-making framework proposes that *Stakeholder Enrolment may take five forms: Social Enrolment, Physical or Practical Enrolment, Intellectual Enrolment, Spiritual Enrolment or Emotional Enrolment*. These five sub-themes will be presented in the next five sub-sections.

**5.4.3.1 Sub-Theme 2.3.1 – Social Enrolment**

The sense-making framework proposes that *Social Enrolment* is the use of personal social resources by leaders to elicit investment by other *Stakeholders* within the context of the problem ecology. These efforts are rooted in the *Social Complexity* of leaders, as presented in sub-section 5.3.1.1, and are evident in social behaviours such as efforts to understand others, encouragement of involvement, talking and listening.

Social forces are important in the enrolment of other *Stakeholders*. Some leaders are “very influential, so they can sway those decisions and the way in which those problems are solved very dramatically in either direction” (P6), so it is helpful to “get everybody to interrogate their motives” (P1).

Participants gave examples of how engagements were initiated by direct social approaches. P3 advocated for calling "a round table discussion with all my stakeholders", and P5 observed, "I have had projects that I had approved formally quite quickly, so going, making a proposition, approving it with my boss and going right to the top to have it approved."

Enrolment of other *Stakeholders* might be individualised or personalised. P6 proposed that she would segment and approach different groups differently "Because the nature of the relationship is different". P10 added, "you've got to mentally categorise them into groups. These are my suppliers, these are my strategic stakeholders, these are my operational ones, these are staff, and then understand what the triggers are". P9 explained the importance of "figuring out the type of language necessary to describe and connect to the problem", and P5 concurred that "you have to approach them differently".

Participants provided evidence for the role of outward communication when leaders engage other *Stakeholders*. P10 described *Stakeholder Engagement* as "talking to them, engaging with them, sharing information of knowledge and having debates and discussions with them". P6 recommended "congruency in the messaging".

Both P3 and P6 emphasised the specific importance of what leaders say to engage others. "People need leaders, and people trust people who they perceive to be leaders or knowledgeable, and often will align their thinking with what the leader says." (P6). "Employees look to organisational leaders for guidance, and therefore they have to engage at all times." (P3). P3 insisted that a CEO "has to remain relevant and engage at all times, period".

P6 felt responsible as a leader to "bring this to the fore". She also promoted the value of "take people back, and you say, this is everything that was happening in that space, and this is why we've made the decisions that there seems to be a better understanding and the conflict seemed to be dissipated in some way, or mitigated" (P6).

P8 explained how she engaged with other *Stakeholders*, initially talking "about these issues that are very rural development type issues, community development, poverty reduction type things and use that language", but learned to rather start with "talking about their world first".

Other participants emphasised the role of listening to engage *Stakeholders*. P2 illustrated how President Macron's roadshow involved "listening to people". P6 explained that listening conveys respect "have a deep respect for people and their opinions, that sits at the heart of it, and that you have the willingness to listen through all of the comments and not have preconceived ideas". P8 added, "you don't obviously have all of the answers or all of the solutions, and it's worth drawing on your team".

P10 placed a lot of emphasis on the importance of listening to *Stakeholders* to be able to understand them, identify their triggers and tailor communications with them. She urged, "Doing that research by knowing your stakeholders. Spending the time to understand them,

get to know their triggers and what interests and doesn't interest them" (P10). She expanded, "you need to understand for each stakeholder or stakeholder group" (P10).

Whilst P8 supported the importance of "listening to your clients or your employees, or your customers, or your leadership team, how they make sense of a problem or a challenge, or an opportunity that is being expressed or presented to them", P1 insisted that in the case of vulnerable *Stakeholders* "they get to tell you", and "you literally should have no say" (P1).

Participants emphasised that leaders should encourage *Stakeholders* to be involved. P6 proposed an approach that "allows for the stakeholder to initiate some of this engagement", and she urged them to "speak on a level that is understood and that helps people have an equal opportunity to participate" (P6).

Involving others may require asking them. This might mean someone "knocks on my car window" (P1). Alternatively, P5 illustrated how he would "openly discuss with her like can you back me on this, can you if he shows this behaviour or questions this can you have my back, and she often does". He emphasised that a *Stakeholder* needs to "be really clear about what you expect and why" (P5).

The engagement of others is challenging but can be intentionally encouraged. P9 stressed that "to get different people, different types of resources, to work together requires a very skilled project manager, facilitator type person" (P9). One participant provided a metaphor to illustrate how *Stakeholder* involvement could be encouraged whilst still providing structure for that involvement:

"So not telling them, this is the song that you're going to sing, this is the way you're going to sing it, this is how and when and to whom you're going to sing it, but rather saying, here's a song, I want you to improvise. Or you can change the genre; you can change the lyrics, you can do with it what you want. I guess in that sense, the organisation is providing you some constraint in saying that this is the general tune, but you, as the stakeholder you, can do with it what you want in a way that I'm saying I trust you and I see the value that you add. This is just my song, but you can add your spin on it, almost." (P8).

When *Stakeholders* contribute, this can be further encouraged "if it manages to attract some people, how do we give it energy, how do we amplify the pattern?" (P4). P6 proposed "being hospitable, offering something to drink and so on", and P2 observed that criticism could be withheld "No one wants to be told how crap they are and that what they've been doing for the last 30 years is a mistake.").

Having presented findings which support the sub-theme of *Social Enrolment*, the researcher will proceed to present findings which demonstrate how leaders enrol other *Stakeholders* through physical or practical efforts.

#### 5.4.3.2 Sub-Theme 2.3.2 – Physical or Practical Enrolment

The sense-making framework proposes that *Physical or Practical Enrolment* is the use of personal physical resources by leaders to elicit investment by other *Stakeholders* within the context of the problem ecology. These efforts are rooted in the *Physical Complexity* of leaders, as presented in sub-section 5.3.1.1, and are evident in physical or practical behaviours such as location choices, taking specific action and providing tangible resources.

The enrolment of others through practical means involves action. As P6 stated, "if it lands on my desk, it means I need to approach". She went on to say that she "needs to bring it to the fore" and "deal with it rather sensitively and efficiently" (P6). P9 added that leaders must "somehow take our people beyond where we've been" and "focus on what can we do here with what we have now".

Enrolment also involves allowing action. P7 encouraged "they're allowed to practise together". This might require providing a clear definition of "what you expect and why" or providing "documentation and stuff" (P5).

Injecting physical energy into *Stakeholder Engagements* could be important because "just with the right amount of optimism and energy, we can really change things significantly" (P8). This might be useful when *Stakeholders* seek to "motivate people into a longer-term change process than they are potentially previously used to", as P9 highlighted.

Physical or practical location can be important in the enrolment of other *Stakeholders*. P6 explained that "where one chooses to hold this kind of conversation is of paramount importance because it also sends subliminal messages of where the power sits". P5 illustrated, "So I had to come to their marketing team meetings.", and P2 demonstrated the engagement power of "the French president Macron essentially touring the country and speaking to everyone".

P8 spoke about "creating the conditions in which those things can emerge" or shifting a constraint (P4). These conditions and constraints might be physical or practical, and P5 added that it is necessary to "give them the tools".

Having presented findings which support the sub-theme of *Physical or Practical Enrolment*, the researcher will proceed to present findings which demonstrate how leaders enrol other *Stakeholders* through intellectual efforts.

#### 5.4.3.3 Sub-Theme 2.3.3 – Intellectual Enrolment

The sense-making framework proposes that *Intellectual Enrolment* is the use of personal intellectual resources by leaders to elicit investment by other *Stakeholders* within the context of the problem ecology. These efforts are rooted in the *Intellectual Complexity* of

*Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in intellectual behaviours such as intellectual humility and seeking to understand others.

Intellectual humility can be important in the enrolment of other *Stakeholders*. P2 proposed "being aware that often one doesn't know anything or at a minimum much less than one thinks". P4 added, "Can we go almost with a really wanting to learn?" and P6 proposed that a useful skill to engage others is "your own ability to be flexible and to amend your thinking as conversations unfold, so that flexibility and compromising" happen (P6).

Enrolling others also involves seeking to understand them "if you can see things from a stakeholder's perspective, essentially from an insider's view, it helps you understand the way that maybe knowledge is produced, or meaning is made, or people make sense of things" (P8). This may mean "asking the right questions" (P6) to "get a lot of perspectives from everywhere around the organisation, so from a lot of stakeholders" (P5).

Some participants provided specific examples. P2 urged gaining information about organisational priorities to be able to pitch effectively to them regarding climate change "learn what are, for example, shared resolutions or what are agenda items on a company's annual general assembly that you can address them, and how do you need to frame it to get majority support and so on". P6 recommended, "try and figure out what knits that community together and how they go about solving their problems".

Leaders can support other *Stakeholders* to participate in "make the things easy" (P7). P7 cited an example of coaching uneducated individuals "you may have even pre-coached them so that they can take part", and P4 explained in a different context how the "role of the coach becomes teaching the children to see and exploit those affordances". Leaders can also directly involve individuals with specific competencies "I struggle with accounting, but I have real respect for accountants and know how to leverage their competencies" (P9).

The enrolment of other *Stakeholders* often involves providing information. P6 explained the need to "present the problem as it arose but then also provide a little bit of context around the problem". She expanded "bring clarity and give the context and a little bit more of the background information" and then further "probe and add to the information to get it to be comprehensive" (P6). She finally urged that leaders should "be very upfront, honest and ethical in the manner in which you present information" (P6).

Leaders can support enrolment by assisting people in understanding. P8 explained the power of the "metaphors we use to understand", and P7 illustrated how site visits helped *Stakeholders* to understand each other's contributions to solutions "other people were understanding what they did and appreciating it". P5 illustrated further how when a *Stakeholder* is obstructing his constructive action; he will "pinpoint the logic behind the decision and not get like frustrated or mad but formulate it in the form of a question to show my logic, and hopefully to open up his mind to listen to the explanation".

Having presented findings which support the sub-theme of *Intellectual Enrolment*, the researcher will proceed to present findings which demonstrate how leaders enrol other *Stakeholders* through spiritual efforts.

#### 5.4.3.4 Sub-Theme 2.3.4 – *Spiritual Enrolment*

The sense-making framework proposes that *Spiritual Enrolment* is the use of personal spiritual resources by leaders to elicit investment by other *Stakeholders* within the context of the problem ecology. These efforts are rooted in the *Spiritual Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in spiritual behaviours such as exercising and giving agency, taking responsibility, and being trustworthy.

Leaders can encourage engagement by other *Stakeholders* through the agency and ownership which they afford to them. P8 proposed that *Stakeholder Engagement* was "involving or giving people the agency to act". She promoted "giving them the openness and freedom and agency to engage" and "establishing those conditions in which people have more agency and freedom" (P8). P9 stated, "You can't ask people to own a problem unless they are able to actually own it.", and P2 added, "You can't expect people to take ownership of something that they don't know about or have at least some level of understanding of."

*Stakeholder Enrolment* was found to be supported by motivating behaviours on the part of leaders. P5 said, "I would also need to inform them and motivate them." and P9 corroborated, "Getting people to buy into that takes quite a lot of work because if you're dealing with all these diverse stakeholders, you need to think what motivates each."

Participants also recommended character traits which supported enrolment, such as commitment (P1), humility (P4), honesty and transparency (P6).

Having presented findings which support the sub-theme of *Spiritual Enrolment*, the researcher will proceed to present findings which demonstrate how leaders enrol other *Stakeholders* through emotional efforts.

#### 5.4.3.5 Sub-Theme 2.3.5 – *Emotional Enrolment*

The sense-making framework proposes that *Emotional Enrolment* is the use of personal emotional resources by leaders to elicit investment by other *Stakeholders* within the context of the problem ecology. These efforts are rooted in the *Emotional Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are evident in emotional behaviours such as care, empathy and enthusiasm.

Participants provided a few examples of how *Stakeholders* might be enrolled on an emotional level. P5 advocated for inviting participation "so that it wouldn't feel like a burden but as something exciting", adding "present it to them in an exciting way". P7 urged, "you've got to

make that fun". P2 cited the example of President Macron's country tour "that was very much an exchange also on emotion".

Finally, participants spoke about creating a safe emotional space for engagement, "holding that space of ..... compassion" and "building .... compassion" (P9).

Theme 2.3 presented findings in support of *Stakeholder Engagement* as enrolment of other *Stakeholders*. The next sub-section presents findings which demonstrate that *Stakeholder Engagement* may also be viewed as an enriching, positive experience.

#### 5.4.4 Theme 2.4 – Stakeholder Engagement Experience

In section 5.4,

#### Table 29 The Emerging Sense-making Framework Section C

represented the third meta-theme of the emerging sense-making framework. An extract from

#### Table 29 The Emerging Sense-making Framework Section C

is duplicated below for ease of reference, illustrating the theme of *Stakeholder Engagement Experience* and its five sub-themes.

#### Extract from Table 29 The Emerging Sense-making Framework Section C (Duplicated)

Meta-theme 3 - Stakeholder Engagement				
Theme 3.4 - Stakeholder Engagement Experience				
Sub-theme 3.4.1	Sub-theme 3.4.1	Sub-theme 3.4.1	Sub-theme 3.4.1	Sub-theme 3.4.1
Social	Social	Social	Social	Social
Experience	Experience	Experience	Experience	Experience

The sense-making framework proposes that the *Stakeholder Engagement Experience* focuses attention on the subjective experiences which make interactions enriching or valuable to stakeholders and which impact how they change as a result of these interactions. These experiences are rooted in the complexity of stakeholders and may be social, physical or practical, intellectual, spiritual or emotional. This proposition is supported by the perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341). Another repeating fractal pattern was observed in the *Stakeholder Engagement Experience*. Stakeholder experiences may be social, physical, (or practical), intellectual, spiritual and emotional.



The *Stakeholder Engagement Experience* theme focused attention on the experiences *Stakeholders* have, which make interactions enriching or valuable to *Stakeholders* and which impact how stakeholders change as a result of these interactions. These experiences are rooted in the *Stakeholder Complexity* presented in sub-section 5.3.1.1 and may be social, physical or practical, intellectual, spiritual or emotional.

*Stakeholders* are often motivated to engage because of pain or desperation. As P2 stated, *Stakeholders* will take active responsibility “because it hurts”. However, whilst these negative experiences might promote engagement, they do not make the engagement itself inherently rewarding. The focus in this sub-section was on findings which support engagement as inherently rewarding.

Distinctions between the five different forms of experience presented in the sub-themes below were not always evident in participant responses. P8 described “the mutual benefit of it”, and P5 explained that “it feels like a success”. P10 explained that stakeholders engage because “there’s something in the engagement that has triggered the thought in their mind, pleasure centre, something that they are looking forward to that gets them thinking or gets them anticipating what is to come”.

Actual involvement in the *Wicked Ecology* was described as eye-opening by P8, who described the *Social Experience* of “hearing their stories first-hand”, the *Emotional Experience* of “seeing the human emotion behind it”, and the *Intellectual Experience* of piecing “all of those things together and make sense of it for ourselves”.

P7 described how *Stakeholders* “suddenly get comfortable with the messiness”. He went on to explain that this involved the *Emotional Experience* of serenity and an *Intellectual Experience* of understanding what is happening (P7).

The experience of being engaged changes *Stakeholders*. P8 explained, “you enter into a state of liminality where those rules and structures and things don't apply to you anymore. You're shifting through some kind of state of change and transforming and transitioning to something else and into something else”.

The sense-making framework proposes that *Stakeholder Engagement Experience* may take five forms: *Social Experience*, *Physical or Practical Experience*, *Intellectual Experience*, *Spiritual Experience* or *Emotional Experience*. These five sub-themes will be presented in the next five sub-sections.

#### 5.4.4.1 Sub-Theme 2.4.1 – Social Experience

The sense-making framework proposes that *Social Experiences* make interactions enriching or valuable to *Stakeholders* and impact how they change as a result of these interactions. These experiences are rooted in the *Social Complexity* of *Stakeholders*, as presented in sub-section

5.3.1.1, and are reflected in benefits such as social affirmation, understanding, appreciation and relationships.

Engaging as a *Stakeholder* can create the opportunity for *Stakeholders* to experience social affirmation. As P6 stated, "It validates and honours people for what they do, and it gives them that validation". P5 concurred, stating, "It's really rewarding if a very important stakeholder acknowledges the work you put in". Engagement gives *Stakeholders* the chance to be empowered, seen, and heard (P8). P1 observed that basking in "reflected glory" might feed an ego need and warned that *Stakeholders* need to monitor their motivation.

Positive *Social Experiences* cited by participants included "other people were understanding what they did and appreciating it" (P7) and "being presented with opportunities to get involved. Being given access, being encouraged to act" (P8). P10 pointed out that "stakeholders who engage generally are positive and approachable, so the experience becomes a positive one".

For some *Stakeholders*, the value of the experience lies in the opportunity for "building connection" (P9). These individuals might appreciate icebreaker-type activities "that diffuses the situation a little bit before one dives into it" (P6).

Meaningful *Social Experiences* might take the form of "taking time to work out a new language together that works for everyone" (P9) or "why that story resonated with me and being able to see the shared humanity in that" (P8).

Having presented findings which support the sub-theme of *Social Experience*, the researcher will proceed to present findings which demonstrate how *Stakeholders* might experience a physical or practical benefit from interaction.

#### 5.4.4.2 Sub-Theme 2.4.2 – Physical or Practical Experience

The sense-making framework proposes that *Physical or Practical Experiences* make interactions enriching or valuable to *Stakeholders* and impact how they change as a result of these interactions. These experiences are rooted in the *Physical Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are reflected in benefits such as tangible rewards and living, practical realities.

Engaging can create the opportunity for *Stakeholders* to experience the practical reality of the problem ecology (Fenn & Hobbs, 2015; Irwin *et al.*, 2015). "So being able to understand it from a first-person view like experiencing it for yourself, that can be incredibly useful" (P8). P8 described a personal opportunity she had "One anthropology lecturer took our class to the Zimbabwean border. So it's a similar concept of like going to a different context". She described how enlightening this experience was.

Other participants explained how rewarding tangible results could be. P6 stated, "often leaves you – well sometimes a favourable outcome and you feel a sense of achievement". P9 added,

expressing the "satisfaction of, aah, we're getting things done, we're getting things done". P9 also observed how "your experience in that context, getting to that level of change has opened your eyes up to a whole bunch of other things that need to get done".

Having presented findings which support the sub-theme of *Physical or Practical Experience*, the researcher will proceed to present findings which demonstrate how *Stakeholders* might experience an intellectual benefit from interaction.

#### 5.4.4.3 Sub-Theme 2.4.3 – Intellectual Experience

The sense-making framework proposes that *Intellectual Experiences* make interactions enriching or valuable to *Stakeholders* and impact how they change as a result of these interactions. These experiences are rooted in the *Intellectual Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are reflected in benefits such as insight, sense-making and awareness.

Engaging enables *Stakeholders* to gain insight and understanding, either on a personal level or through other *Stakeholders*. Those who live closest to the problem "they also live and experience this problem, so therefore that deep understanding" (P6). These *Stakeholders* have the benefit of being able to see their own impact "know that you are disrupting whatever's happening here and just you being there is changing the dynamics of it" (P8).

Although they may be sceptical initially (P10), through engaging with other *Stakeholders*, individuals can "make sense of what is happening" (P8). They have the option of "allowing other people's stories to influence the way that you see things and how you make sense of things" (P8), and through their interactions "opposing views start to dissipate, and people do get different perspectives" (P6).

Intentional thinking activities allow *Stakeholders* to develop "greater self-awareness" (P9). P8 illustrated this, explaining, "So after we did that, we had quiet reflection where we were able to just write down our own field notes, try and look for things that surprised us, things that we were curious about, or things that were upsetting" (P8).

Having presented findings which support the sub-theme of *Intellectual Experience*, the researcher will proceed to present findings which demonstrate how *Stakeholders* might experience a spiritual benefit from interaction.

#### 5.4.4.4 Sub-Theme 2.4.4 – Spiritual Experience

The sense-making framework proposes that *Spiritual Experiences* make interactions enriching or valuable to *Stakeholders* and impact how they change as a result of these interactions. These experiences are rooted in the *Spiritual Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are reflected in benefits such as finding meaning, sharing unity and discovering passion.

*Stakeholders* described the value of "finding meaning in things" and having "collective conversation around what that means" (P8). P6 expanded this perspective, describing how effective engagement will "really impact you on a level that matters to you" and "with that will come the engagement and the willingness to engage".

There also seemed to be a benefit in the proposal from P1 that *Stakeholders* can unite around the fact that "no one has an answer, no one can fix it, no one is more powerful or less powerful because of their abilities or what they have, or what they can access or anything".

Having presented findings which support the sub-theme of *Spiritual Experience*, the researcher will proceed to present findings which demonstrate how *Stakeholders* might experience an emotional benefit from interaction.

#### 5.4.4.5 Sub-Theme 2.4.5 – Emotional Experience

The sense-making framework proposes that *Emotional Experiences* make interactions enriching or valuable to *Stakeholders* and impact how they change as a result of these interactions. These experiences are rooted in the *Emotional Complexity of Stakeholders*, as presented in sub-section 5.3.1.1, and are reflected in benefits such as satisfaction, enjoyment and being heard.

P2 proposed that emotion "kind of weaves through all the other forms of exchange". *Emotional Experiences* tend to be associated with effective engagement. As P6 stated, "if you want that effective engagement, it really needs to touch one's heart". P8 suggested that *Stakeholders* are possibly motivated to engage "probably if it impacts them in some way, or if they feel they could have a meaningful impact on it if they feel like it's something that they can change for the better, the greater good".

P7 also advocated for getting people to "enjoy working together" and explained that sometimes "people participate, they're keen, and everything is fine" until implementation. P5 suggested that when a *Stakeholder* can persuade another to a shared perspective, "then that feels really good". He also described his ideal "so that it wouldn't feel as a burden but as something exciting" (P5).

The opportunity to express negative emotion may be satisfying to some *Stakeholders* who eventually get the opportunity to be heard (P8). "Given their current situation, it's the best they bring in, and it might be anger and resentment." (P2). This enables others "seeing the human emotion behind it" (P8).

Theme 2.4 presented findings in support of *Stakeholder Engagement* as a positive experience. The next sub-section presents findings which demonstrate *Stakeholder Engagement* as a process which develops over time.

#### 5.4.5 Theme 2.5 – Stakeholder Engagement Process

In section 5.4,

#### Table 29 The Emerging Sense-making Framework Section C

represented the third meta-theme of the emerging sense-making framework. An extract from

#### Table 29 The Emerging Sense-making Framework Section C

is duplicated below for ease of reference, illustrating the theme of *Stakeholder Engagement Experience* and its five sub-themes.

#### Extract from Table 29 The Emerging Sense-making Framework Section C (Duplicated)

Meta-theme 3 - Stakeholder Engagement		
Theme 3.5 - Stakeholder Engagement Process		
Connection Process	Intention Process	Action Process
Collaborative Process	Iterative Process	Adaptable Process

The sense-making framework proposes that the *Stakeholder Engagement Process* is the collection of activities through which *Stakeholders* become increasingly committed over time to investing their personal resources within the problem ecology. This proposition is supported by the perspectives of research participants.

As established in sub-section 1.5.2.1, different levels of the system tend to exhibit similar fractal patterns (Fisher & Coleman, 2019: 341). Another repeating fractal pattern was observed in the *Stakeholder Engagement Process*. Like *Stakeholder Interaction*, the *Stakeholder Engagement Process* involves connection, intention and action.

Meaningful stakeholder engagement depends on how important the context is to the stakeholders, their sense of belonging and their active contribution (Bailey *et al.*, 2018). This statement affirms that *Stakeholder Engagement Process* should involve *Connection Process*, *Intention Process*, and *Action Process* in support of stakeholder needs to belong and contribute actively to a cause which matters to them.

Findings from the individual interviews supported this framing of *Stakeholder Engagement* as process. The three process activities were illustrated by P6, who said, "If you had an engagement (*Connection Process*) and the outcome was we'll do steps one, two, three (*Intention Process*) that one will go back, effect those (*Action Process*), give the feedback (*Connection Process* again)". P1 also contributed "We're all here because we really deeply care about this problem and so together we're going to figure out how we can work together and address it".

The sense-making framework proposed that *Stakeholder Engagement Process* involved three activities: *Connection Process*, *Intention Process* and *Action Process*. Findings which supported these three sub-themes have been presented in the next three sub-sections.

In addition, the research findings suggested a more qualitative framing of the *Stakeholder Engagement Process*. An additional three sub-themes were thus proposed: *Collaborative Process*, *Iterative Process* and *Adaptive Process*. Findings in support of these three additional sub-themes will be presented in the following three sub-sections.

#### 5.4.5.1 Sub-Theme 2.5.1 – Connection Process

The sense-making framework proposes that *Connection Process* is the process activity which brings *Stakeholders* together to interact meaningfully with other entities in the problem ecology.

The *Connection Process* addresses the fact that “there’s a need for integration” (P1). As P7 articulated:

“You’ve got to run a whole flexible system that allows it to happen often enough and gives enough energy and enough equity that you aren’t leaving other people who actually don’t have a voice right out, and later on, that’s going to backfire on you. So thinking of all this stuff at the same time and somehow integrating it in their heads.”.

*Interaction Connection* occurs informally on an on-going basis as *Stakeholders* interact with different elements of the problem ecology (Fenn & Hobbs, 2015; Irwin *et al.*, 2015), as discussed in sub-section 5.4.1.1. It also happens through more formal, structured, and scheduled activities. As P8 observed 'You've got your individual parts that matter, but collectively they make meaning together'. When *Stakeholders* connect with each other, with themselves and with the other elements of the system, they can “piece all of those things together and make sense of it for ourselves” (P8).

*Connection Process* activities first determine which *Stakeholders* will be engaged. The discussion in sub-section 5.3.2.1 highlighted the challenges and power dynamics potentially involved in identifying who the *Stakeholders* are in the context of a specific *Wicked Problem*. It is not always possible to have all the *Stakeholders* involved. Some stakeholder groups are simply too large (P7). “Sometimes you have to just consult with the representative of a group, which is counterintuitive when you’re talking about stakeholder engagement” (P6).

P10 explained that sometimes connection ripples out “It’s almost like a stone in a pond if I’m thinking of Covid, it goes out in ever increasing circles, but it starts with World Health Organisation who then communicate to ministers of health, who then communicate to their stakeholders, and it goes from there. So, it starts with the person with the most knowledge and information initially, and then it flows out from there”.

*Wicked Problems* provide the opportunity to "connect stakeholders that haven't been talking to each other before" (P9). *Stakeholder Engagement* typically begins with connecting *Stakeholders* into some kind of group. In practice, this usually involves "somebody initiating it, taking the lead" (P6). Subsequent power dynamics may be influenced by this initiation (P6). However, as P3 pointed out, "you've got to identify who your stakeholders are first and foremost".

When asked if *Stakeholder Engagement* could happen without someone having the responsibility to engage others, P2 responded that "I would say so, if stakeholders speak up. Stakeholders need to make themselves heard, and then stakeholders themselves have to take on a more active process of responsibility". For example, all *Stakeholders* could potentially invite others like "adjacent departments, for example, that could benefit from what you're working on" or those with whom you "need consensus on it for the future" (P5).

*Stakeholders* need to ideally connect on a personal level. P6 proposed some kind of an icebreaker activity, "something that helps people to get to know each other a little bit better before they actually start with the serious conversation". P5 stated that he chooses to actively "make friends within the organisation" to facilitate access to key people (P10).

Ultimately *Connection Process* probably focuses on "How do you get more stakeholders engaged? How do you create the conditions? And I don't know who would be responsible for that, but what needs to happen so that there's almost a groundswell of engagement?" (P4).

In addition to connecting with their colleagues, *Stakeholders* connect with themselves during these *Connection Process* activities. P8 illustrated how *Stakeholders* connect with their inner thoughts, stating, "I guess it goes back to what are the explanations or assumptions behind your reasoning or the story that you tell yourself and tell other people". She added, "What are those things that help you make sense of something? What are those contexts that you draw on, the knowledge that you draw on, the experiences that you draw on to kind of construct these stories?" (P8).

P7 demonstrated how *Stakeholders* might revise their opinions after some personal reflection. He observed, "If they agreed reluctantly when they sleep on it tomorrow morning, they have a good idea whether – how much they really agree". P8 illustrated a personal reflective stakeholder exercise "we had quiet reflection where we were able to just write down our own field notes, try and look for things that surprised us, things that we were curious about, or things that were upsetting".

The formal *Connection Process* brings *Stakeholders* together with each other, often with the intention of deepening mutual understanding and developing greater insight "Put a group of people around to focus on solving the wicked problem" (P6). As P8 expressed, "We are here to listen, to learn, to immerse ourselves in this space, to learn from the people who are here, to engage with them, listen to their stories and to make sense of what is happening". P7

observed further, "It's all about practising and talking to each other and sussing out each other's meaning and learning to understand others".

*Stakeholders* also need these *Connection Process* activities to build trust. As P7 asserted, "You spend all this time just building the trust in the beginning". P2 explained the use of a technique called "Yes.....And" to encourage *Stakeholders* to "Accept what they bring to the table, and you build on top". As P7 added, "There's this tug of war almost the whole time, but it's a constructive tolerance-building, trust-building sort of tug of war".

Beyond trust-building, the "Maturity of the relationship grows and evolves so that relationship will be positively influenced because there's understanding, there's sharing of information, there's challenge. And I think the more robust it is, the more it matures over time." (P10). Although it might be possible to fast-track this process, P10 asserted, "It takes more time, and I think the stakeholder relationships are an investment in time", and "You can't go from level 1 to level 5. You've got to go through all those steps" (P10).

The *Connection Process* enables *Stakeholders* to see the scale and complexity of the problem and where they fit into the system "you're still part of a bigger system that you have little to no influence on sometimes. And learning how to accept your place in that system" (P9). "You can't categorise it or put it in a framework. It's kind of like you need to look at it in context. You need to look at the people it affects, the system it operates in" (P9). P8 expanded, "It's a whole ecosystem around it. You can't just take that one little strand of the ecosystem and think that now you understand the problem". P7 emphasised the need for "looking at technological drivers and economic drivers, and so-called social drivers and biophysical drivers. You try and list all of those, and you take all of those into account".

Connecting with others also helps them to understand their impact or role in the problem. P2 explained, "and the discussion, of course, is how much have they caused or not caused the problem, so there's a very philosophical debate of responsibility hidden in that statement".

Stakeholder involvement is fostered as they connect with the problem and the people who are affected by the problem. "People can't own a problem that they can't see themselves in or identify with. Like you can't ask people to own a problem unless they are able to actually own it, and that takes some good work and figuring out the type of language necessary to describe and connect to the problem" (P9). *Connection Process* activities help *Stakeholders* with "building connection and compassion" (P9).

*Connection Process* allows *Stakeholders* access to information about the problem. P6 proposed that this should be "full comprehensive, exact information" to build trust, and P5 added that this meant "give topics the attention they deserve". P6 explained the problem of *Stakeholders* withholding information "not painting the entire picture which leaves people having to fill in the missing bits of information which in the end is not helpful because they



don't feel that they are informed, and they don't have the information needed to actually contribute to solving that problem".

Participants indicated that as *Stakeholders* share and connect information, they build a more complete or accurate picture of the problem. P4 posed a scenario:

"I might have drawn an arbitrary boundary. Like I might think, oh, this is just a Bank B problem, doesn't concern all these groups out there the boundary's here, but then actually I didn't understand how complex and how entangled this is and so I made the wrong estimation of where that beginning and ending of the system or the problem sits."

P2 explained that there are "known unknowns and unknown unknowns, and I would say that without stakeholder engagement, how are you supposed to know".

However, even with information, *Stakeholders* are unlikely to see the problem the same way as others. *Connection Process* brings many different people together with differing and potentially conflicting perspectives, which need to be connected into a whole. P6 urged that *Stakeholders* should "use those opposing views to your advantage to get a 360 view of the problem that you're trying to solve". As she stated, "one needs opposing views or various perspectives on a wicked problem so that you can see the blind spots and be made aware of consequences or risks that you may not have contemplated" (P6).

When *Stakeholders* connect, they can access or deliberately introduce additional advice as well as opinion from different disciplines. P5 said, "I often call her for advice because she is more experienced". P7 stated, "If you can explain it with one thing, it's not a complex system or a wicked problem. If you've got one framing that sorts it out, that doesn't – you've got to have two or more, and they're incommensurate".

New connections reshape the system and potentially reveal new insights. P8 advocated for a particularly disruptive element in these connections "you need something to push you in a different direction". She added, "Sometimes you just need that something to disrupt them and shake things up.". As *Stakeholders* connect, they can discover and allow dissent in the system. P3 pointed out, "therefore, we contradict each other in terms of our information", and P5 stated, "they can also choose to openly disagree".

Connections also help *Stakeholders* to monitor and understand the changes which occur in the *Wicked Ecology*. P2 proposed, "the results might look different but also the process might look different, or you start realising that the problem was a different one, to begin with". P7 explained how *Stakeholders* in his context "developed adaptive forms of evaluation and monitoring". P2 affirmed, "adjust the fact that expectations are not met, and one should think outside of that box of possibilities". P4 argued, "If you're going to get feedback and you're not going to act on it, then you're just wasting your time and your energy.". P6 also advocated for

the feedback loop, stating, "because inevitably you would want to identify the gaps and you want to use these engagements also to identify gaps in what needs improvement".

Connection is a relative concept. Some *Stakeholders* are "closest to the problem" (P6). Then there are "other people who are outside" (P8). Some of these Stakeholders may be obvious or more distant. "and then you look at who are at the next level, at the planning level. You try and bring those people together with the local community who have a voice, the residents, and then there are people who are taking action" (P7).

Technology is an enabler of *Process Connection*. As P10 illustrated, "it has facilitated people meeting, discussing. I think in a lot of ways it's been positive, but it cannot make up for face-to-face communications and engagement". She added, "there are lots of tools and things you can use", and stated, "there's lots of ways technology can help. It just brings people closer" (P10).

Lastly, *Connection Process* must address issues of access and inclusion. It must address the "challenge of people not feeling represented or not feeling heard or feeling that the conversation is partial to one party" (P6). As P1 said, "If people who want to solve wicked problems and kind of gather people together.... they will use their influence and their networks, and their privilege to open up access to resources and all of that". "There's a need for inclusivity" (P4).

The next activity in the *Stakeholder Engagement Process* is *Intention Process*, in which *Stakeholders* aim to reach an agreement on what they want to achieve together. For them to do that, it helps if their perspectives are somewhat aligned.

#### 5.4.5.2 Sub-Theme 2.5.2 – Intention Process

The sense-making framework proposes that *Intention Process* is the activity which enables *Stakeholders* to define collective goals and develop action plans with respect to the problem ecology. The goal of Intention Process was explained by P7 "You produce kind of a – not a common picture but enough overlap of the mental moral so that you can actually move constructively forward. You don't stifle people, but you get them broadly on the same page".

As discussed in sub-section 5.4.1.2, intention plays a role in every interaction. It also happens through more formal, structured, and scheduled activities in which *Stakeholders* clarify their collective intentions and make plans. It is about "diversity of perspective and if we can bring our collective imagination to bear on these things, on these problems, what can shift?" (P4), remembering that "Conflict comes from incoherent intentions, or misaligned intentions." (P4). P8 proposed that in the context of *Wicked Problems*, *Stakeholders* engage to "initiate or create positive change", and P4 added, "I think there has to be an intent to shift the system to make a difference".

Collective *Stakeholder Intention* references individual *Stakeholder Intention*, meaning and values. P3 explained that a *Stakeholder* needs to "identify my plan and action, my company's values, competency, my aspiration, my strategy, inside of that *Wicked Problem* and have a plan and action". She added, "be clear as to what your goals are, what your interests are and what your priority levels are". P5 highlighted, "I think most people would rather work on something meaningful and significant."

*Intention Process* involves agreeing on the problem and what the *Stakeholders* hope to achieve. As P7 explained, "you've got to agree on a common situation, problem, statement, something or other, or goal at the top". P9 concurred, also illustrating that *Intention Process* continued to require *Connection Process*, as discussed in the previous sub-theme:

"We hope to get people connected and brought into a common vision. Everything flows from vision and the ability to communicate it. And that will take some time to craft that because it means taking time to work out a new language together that works for everyone."

*Intention Process* is shaped by beliefs and values. P7 commented, "I think 95% of what we deal with has got humans as a significant factor, so values are a major driver, and humans instil those values". He urged that *Stakeholders* need to "sort out what the values are" (P7). This participant also explained this logic in reverse "if the outcome is wrongly perceived, then you've got to go and change the goal, and if the goal is wrong, you can see it, you've got to go and think about your values and so you go up the chain." (P7).

*Intention Process* will involve consideration of expectations and possibilities. As P2 explained, "so I do think setting joint expectations means agreeing on a space of possibilities that can be discussed" because "they can still have very different understandings of what is possible at a given time". She referred concurrently to expectations in respect of both possible outcomes and possible actions (P2). She urged "getting an understanding of what pathways exist, so what actions you can take, but also how you can take them to get the desired result. And I think this is a learning process." (P2).

Once *Stakeholders* have explored possible objectives, they will need to make decisions, despite their different interests. Whilst "mutual benefit" might be the ideal (P8), P6 expounded:

"A problem is wicked because it doesn't have an easy solution, and often when you group people around the problem and you ask them to help you resolve that problem, they may have opposing views, and those opposing views may not be possible for you to align. And so, at some point, one needs to choose."

P7 alluded to the possibility that "If you could establish kind of an autocracy or something, you might be able to tell people what they have to believe and then they must shut up.". However, participants advocated that *Intention Process* activities embrace stakeholder agency

(P4) and a more collaborative model (P3), which has been discussed further in sub-section 5.4.5.4. P4 emphasised that *Stakeholders* are adults who “can make decisions for ourselves”, and as P5 illustrated, they can each choose what to prioritise and where to focus. P2 likened good *Stakeholder Engagement* to good democracy, and P3 proposed a “dynamic governance model that will be able to work around a complex, wicked issue”. P8 favoured “using their agency to come up with a solution that works for them. It doesn't take away the problem, but they still engage in it in some way, in some form of agency”.

So, P7 recommended that *Stakeholders* “must set a goal that you kind of at least agree on, even if it's by partial compromise or sufficient consensus or whatever”. He (P7) went on to observe:

“It's never a perfect process, and you mustn't expect them to land up all singing and dancing together as though they've agreed on everything because that's not where you're trying to get to. You want a variety of opinions, but you want them to have enough tolerance to work together.”

He (P7) further argued:

“There's an amicable solution, which doesn't always have to be win-win. I think it's such an unrealistic – there's going to be a trade-off. And so it's the negotiation of a solution that partially meets people's expectations. Because you will not meet everybody around the table's expectations because there will be trade-offs.”

This part of the process involves “weighing up the advantages and disadvantages of every decision in relation to the risks that it poses” (P6):

“And we know that sometimes what people may suggest as solutions may not be practical or feasible but at least being given the opportunity to look at that and then going through is it practical, how much will it cost and all of that as an exercise then also helps people understand why one alternative has been selected above the other.”

*Stakeholder Intentions* are an imperfect and flexible guide. As P4 shared, “Every strategy should be a hypothesis.” (Edmondson & Verdin, 2017: 1). P7 corroborated “they're provisional”. They are also emergent. As P6 advocated, “map out the things that you need to consider, the people you need to be speaking of, and so it really initiates – I would initiate that action plan. And then as people get added to the conversation, obviously that plan then starts taking some shape”. P8 highlighted the importance of flexibility, stating, “It is useful to have a kind of rough guide, but at the same time I prefer being more open to emergence, so letting things emerge as they happen.”.

The intentions which *Stakeholders* set will translate into priorities, concrete milestones, and resource plans. As P4 asserted, “different intents means different priorities”. P7 pointed out, “so you can set up these reified – I don't know what they are, mileposts, they're reified”, and

P5 indicated the importance of resource planning "often then those resources need to be freed on a short timeline, so you can do quarterly planning, for example, so you can plan a quarter ahead".

Some aspects of the problem also need to be dealt with more urgently than others, and P2 asserted that *Stakeholder Engagement* should be particularly tight when they are faced with a "wicked problem that needs wickedly fast action". As P6 proposed, once *Stakeholders* have a "rough draft of this action", they need to focus on "figuring out in your action plan what needs to be dealt with immediately in the next hour or so and then what can wait a little bit".

P4 emphasised the key role that experimentation plays in dealing with problems. She (P4) recommended:

"If you can adopt more of an experimental mindset – so it's not about me trying to solve poverty once and for all, it's about me doing what I can locally and experimenting with can I change things in my local context? What can I do? What do I have control over that I can experiment with? Some of these smaller local experiments can have, as I said, system-wide ripple effects."

This participant expressed the belief that "multiple experiments happening in different parts of the system, even the ones that don't work, will change the system. They can't but have an impact on the system because the system responds, it learns" (P4). P10 affirmed, "I think any response to a wicked problem is an experimental one because you don't know how to solve it."

So, *Intention Process* will involve the design of these experiments. P9 advocated that "You start with the easy win, the lowest hanging fruit, whatever that vision is. Give people something small to hold onto." (P9). That perspective aligned with P4's proposal "make sure that your experiments are contained, and you know what to do if you want to amplify or dampen".

Finally, participants spoke briefly about the importance of implementation plans. P5 explained, "we work with quarterly planning, and if we plan it, it's on a list, and we look at the list weekly, so that way it stays top of mind".

The implementation plan moves the *Stakeholders* into the third activity of the *Stakeholder Engagement Process*, *Action Process*, in which *Stakeholders* implement the action plans and monitor the outcomes.

#### 5.4.5.3 Sub-Theme 2.5.3 – Action Process

The sense-making framework proposes that *Action Process* is the activity in which *Stakeholders* implement their plans to shift the problem ecology and monitor the outcomes of their interventions.

As discussed in sub-section 5.4.1.3, action plays a role in every interaction. *Stakeholders* are always acting in and impacting the system (P4). Action also happens through more formal, structured, and scheduled activities in which *Stakeholders* apply the plans developed in the *Intention Process* activities, work together to create a context for change, implement their intentions and gather feedback from the system (P4). As P4 said, "If we never go into action, we're going to talk these problems to death, and we might get to understand them a bit better, but we're not going to do anything that's going to make a difference."

The scale of stakeholder action needs to be defined. *Stakeholders* need to determine, "Do we need local communities to be acting almost independently of each other or do we need like a global response?" (P4). Sometimes formal *Action Processes* focus on amplifying (P4), supporting (P6) or linking (P7) existing or local initiatives. As P6 suggested, affected parties "are also closest to the problem and often sit with the solution, but just need some guidance and the help to articulate it and to put it in action, and obviously to almost check the sanity, do a bit of a sanity check whether it's really feasible".

*Action Process* is focused on collective effort. It involves ensuring that "you really have the right people around the table. So making sure that you've spent the time identifying who is effective, impactful and should have a voice around that table" (P6) and then "getting people to own a bit of the problem-solving effort with their very specific skill set" (P9).

*Action Process* may involve research, beginning by "finding out who's doing what" (P7). So, "when you have these types of problems, and you come up with a solution, it takes a lot of time because you need to do a lot of research, you need to get a lot of perspectives" (P5).

Action cannot always be applied directly where you want to see results, but "It's not about just having a free fall and waiting for things to happen and not doing anything about it but creating the conditions in which those things can emerge" (P8). So, action sometimes may be about creating a context. As P4 illustrated, "you can't make a carrot grow. You can create the optimal conditions to make it possible for that carrot to thrive". So, a focus of *Action Process* is on creating affordances for action (P4).

When asking *Stakeholders* to take action, it is important to ensure that expectations are clear. As P5 encouraged, "So if you give someone an assignment, you would have to be really clear about what you expect and why". He also proposed that "if you take an assignment to execute it, you should write some sort of a debrief to the person that gives you an assignment, like is this what you expect because this is what I'm going to deliver then. And then that person should almost like sign off on it" (P5). P7 also supported the importance of documenting the action. He illustrated, "we had decent people writing it up, helping interpret it and feed it back and so on" (P7).

Getting the pace of *Action Process* right may not always be easy. An ideal might be what P2 described "I would say that it has gathered momentum and that allows for faster and faster

acceleration, at least again relatively speaking. So I would say that the engagement builds on each other and creates at this point a reinforcing dynamic" (P2). However, in an unrelated comment, P9 observed that in her experience, "such an approach is potentially too fast-paced for the local context".

Some *Action Process* initiatives may be directed toward empowering the system. P1 insisted, "I think that they really only mean what they say if part of their plan is that they will walk away. That they will build capacity", and P9 provided an example of a large project which allocated "a good chunk of that money ... to grow capacity". P7 also indicated, "we have set up relationships from which we can almost withdraw because they are set up now. They weren't there before."

Monitoring, evaluation, and feedback should ideally be woven into the *Action Process*. Whilst P3 advocated that review should follow action, P7 explained how his team developed a more integrated approach "what we started doing was getting participatory reflective things". He observed, "when they actually implement, then all kinds of other unforeseen things happen, but you try to predict those in that process and discuss them, and you've got to have ways of dealing with all the unforeseen stuff" (P7).

P4 expanded, explaining the criticality of monitoring unintended consequences of action. As she highlighted, *Stakeholders* are 'going to trigger unintended consequences. So plan for them" (P4). She added, "the one thing that you are responsible for is your own potential unintended consequences" (P4). She insisted that "it's always irresponsible to act in a complex system if you don't have a way to get feedback" (P4).

Feedback from *Action Process* enables feedback back into the system and informs the on-going process. "Feedback is so critical because you can't know if what you're doing is working, and you also can't know if it's not working if you don't have adequate feedback mechanisms, fast feedback mechanisms across multiple scales, multiple levels from diverse sources" (P4).

The *Stakeholder Engagement Process* comprised the three activities covered in the sub-themes *Connection Process*, *Intention Process* and *Action Process*. An additional three sub-themes have also been presented. They address how *Stakeholders* engage rather than what they do.

#### 5.4.5.4 Sub-Theme 2.5.4 – Collaborative Process

T The sense-making framework proposes that the *Stakeholder Engagement Process* is a *Collaborative Process* which requires *Stakeholders* to work collectively in egalitarian structures.

It is not possible for any *Stakeholder* to single-handedly tackle a *Wicked Problem*. As P4 expressed, "and no one – government can't solve it, X can't solve it. You need collective action from all of these different communities and all of these different stakeholders". Responses to

*Wicked Problems* require *Stakeholders* to “practice together or build, co-construct” (P7), so change can emerge “from all of the various agents in that system acting on local information and making small choices” (P4).

Having established that *Stakeholders* need to work together, participants addressed the question of how governance works in these systems. When asked who is responsible for *Stakeholder Engagement*, P6 said, “Everybody around the table”. P4 argued that the question was the wrong question as it “assumes that there’s some kind of a central something that can be responsible for *Stakeholder Engagement*. And if you really see this as a distributed entangled cross-boundary problem, or pattern, I don't think there's one answer to that”.

P7 implied that the people who should have the most authority should be those who least believe in authoritarian structures. He observed that “the governance stuff tends to be very prescriptive” (P7) and explained that this “sort of puts the people who believe in mechanistic stuff at the top, and it puts the adaptive people lower down, and they should be swapped around”.

Other participants argued for strong governance models. P2 proposed the notion of “procedures on governance of an exchange”. P3 seemed to illustrate the prescriptive governance approach described by P7 “I think this is where your governance model has to come in. To have a strong, bulletproof, die-hard governance model, a deliberate decision-making and forced, harnessed governance model”, but she also proposed that the governance model should be dynamic (P3).

P5 acknowledged that he would prioritise engaging in a project if “the boss of my boss initiated the project”. He also opined that hierarchy could simplify decision-making “When you have a lot of people working on something, and the direction isn't clear, and you cannot reach an agreement, you can bring it to a boss, and the boss would say, we go that way, and then it's good.” (P5).

However, P5 also illustrated how hierarchical structures could increase the inefficiency of these processes. For example, he cited a scenario where effort spent on research seemed to be ignored and the recommendations overridden by someone in authority “I did research on a certain topic, and then we reached a certain conclusion, but then senior management told us to do something else anyway.” (P5). He went on to explain that a year later, he was asked why the original idea had not been implemented and was instructed to go and repeat the same research (P5).

In sub-sections 5.3.2.3 and 5.3.2.4, findings were presented in respect of *Stakeholder Power* and *Stakeholder Vulnerability*, and it was illustrated how power and access differentials impede *Stakeholder Engagement*. Sub-section 5.3.2.3 also included findings related to some of the advantages of less collaborative, hierarchical governance structures. P6 saw power imbalances as a significant challenge to effective *Stakeholder Engagement*. In response to



being asked to identify challenges, she stated, "if there's a power imbalance, it depends on how the conversation was initiated. If it was a forced engagement obviously, that's completely different, whereas if it was more invitational" (P6).

P2 summarised her ambivalence regarding centralised management in respect of *Wicked Problems* "I really do think it depends on the situation. I think some processes are best centrally managed quite frankly, also for wicked problems, and others are not.". She indicated that the governance of *Stakeholder Engagement Processes* might be dependent on "resources and time" (P2). She also suggested that the effectiveness of the *Stakeholder Engagement Process* "depends on whether or not it comes from a starting point where it's decentralised or centralised, or where there's a clear ownership of it or not" (P2).

P2 observed, "either we create a frame and rules for that, or things create their own dynamic". P8 challenged this either/or mindset and proposed that the trickster function, explained in sub-section 5.3.2.1, could enable a different dynamic. "this paradox of it's not this and not that, but it's also both" (P8), presented the possibility of creating a governance structure to maximise efficiency as well as equal access and contribution.

In this kind of *Collaborative Process*, "the parts are fitting together without one part being dominant or one part being favoured" (P8). It can address the "challenge of people not feeling represented or not feeling heard or feeling that the conversation is partial to one party" (P6). As P1 mooted, "In this space, we are all equal, and every idea and contribution is equally relevant and valuable.". P8 added that engagement is ideally "something that's like mutual or not someone who's acted on but has the ability to act as well", and P4 suggested that *Stakeholders* should work in partnership.

The equalisation of the playing fields may require more *Stakeholders* to voluntarily abdicate their power, as P1 proposed:

"If you really want to help, then you go there, and you say, this is who I am, this is what I have, these are the networks I can access, and these are the resources that I have at my disposal. You have the right to tell me to piss off, you have the right to say thanks, but no thanks, go away and leave us alone. You have the right to tell me how you want me to use what I have to help you. You can tell me when to stop, and you can tell me how much you want, and I can't tell you when it's enough because just by choosing to do this means I'm all in. And you have to be prepared to have them say, either at the beginning or halfway through or at any stage of the process, go away. We don't want you anymore."

One of the implications of more "distributed processes is that you have to leave any thoughts of centrally managing things or being able to control anything behind" (P2). This participant went on to argue that you "then need to ensure that the people that are important are involved because you will not know what you missed otherwise" (P2).

This discussion raised the question of *Stakeholder Identity*, discussed in sub-section 5.3.2.1, and the roles which *Stakeholders* might play in the process. P5 described how roles define responsibility and freedom of choice within an organisational hierarchy. P6 explained how her organisation goes about “assigning particular roles” within this context, and P7 described a partnering relationship with NGOs whose role is to “do actual implementation”.

This *Stakeholder Identity* concept may be useful in developing more *Collaborative Processes*, in which the boundaries which define people's responsibilities and freedoms (P5) might be altered, as proposed by P4 "there's such a need now for inter-and transdisciplinary research and to work across these boundaries and even national boundaries". As she affirmed, "There really is, I think, a need for us to start thinking very differently about boundaries, constraints and the nature of these problems." (P4). Just as calling someone "the boss of my boss" (P5) affords authority, other identities define or afford a "sphere of influence" (P2).

For a process to be collaborative will probably require facilitation, as recommended by P6 and P7. P6 gave some examples of structural elements which could be included in the process “outlaying the terms of engagement from inception, laying the ground rules, so that one also ensures courteous behaviour, ensures that people are heard and can finish their sentences, their trails of thought” (P6). P5 implied that it is helpful to describe “who can decide on what”.

As well as being a *Collaborative Process*, *Stakeholder Engagement* is an *Iterative Process*. Findings in respect of this sub-theme have been presented in the next sub-section.

#### 5.4.5.5 Sub-Theme 2.5.5 – Iterative Process

The sense-making framework proposes that the *Stakeholder Engagement Process* is an *Iterative Process* which requires *Stakeholders* to cycle repeatedly through the three core activities of *Connection Process*, *Intention Process*, and *Action Process*.

As explained in sub-sections 5.4.5.1 to 5.4.5.3, the process cycles through *Connection Process*, *Intention Process* and *Action Process*. As P4 asserted, though, boundaries and categories are not immutable, so the process is messy (P7) and not always linear (P4; P8). For example, as P7 illustrated, setting intentions also involves connection, "you must set a goal that you kind of at least agree on, even if it's by partial compromise or sufficient consensus”.

P8 proffered the analogy of a walking song to describe *Stakeholder Engagement* and the value of repetitive rhythm and pattern to foster forward movement on a long journey:

“So, with migrant labour, as you know, people of colour had to live outside of the spaces where they had to travel to work, and they were never fully integrated or incorporated into the urban space. They were always just kind of like moving between these two walls, and the migrant labourer became this liminal figure. And in walking these vast distances, they would perform walking songs as they walked. And the intention behind this was to shorten both the distance and the time that you were

walking so it's these very repetitive, rhythmic songs that you're singing. So, while you're walking, it's almost like time becomes this cycle where it's like, okay, it's repetitive, you're losing track of how far you've walked and how long you've walked, but at the same time, you're still moving forward but time walks into this spiral."

The complex (Alford & Head, 2017; Burge & McCall, 2015; Capra & Luisi, 2014: 4; Head & Xiang, 2016; McMillan & Overall, 2015), changing (Blignaut & Aronson, 2020; McMillan & Overall, 2015) and conflictual (Bannink & Trommel, 2019; Carcasson & Sprain, 2016) nature of the problem ecology, presented in sub-section 3.3.1, meant that there is a "need for integration" (P8). As P8 elaborated, *Stakeholders* need to "be open to change, be open to whatever emerges and then reintegrate that back into the way the organisation operates" in the context of *Wicked Problems*. An *Iterative Process* provides the structure for this continual reintegration.

*Stakeholders* need to reconnect iteratively to amend their thinking as the *Wicked Ecology* changes. As they re-enter each cycle, they can reconnect with everything that is new in the *Wicked Ecology*, as P4 advocated, "wanting to learn, really wanting to and being open to changing what we were planning to do based on the information we get".

The *Iterative Process* helps *Stakeholders* to revisit process principles and agreements. As P6 explained, "so if one can every now and again just draw one back to, these are the things that we agreed to upfront before we go off into all the burrows and investigating everything".

Iteration also allows *Stakeholders* to revisit goals, plans and intentions. As P6 outlined, "you'd also have to come back if there's any amendments to plans that may need to be executed". P7 added, "a line in a complex condition, the line is never straight between A and B, and in fact, you won't get to B even if you agreed on B, most likely. So, you must get ready to re-discuss whenever it's necessary".

Iteration allows for every concept in the *Wicked Ecology* to be repeatedly revisited, if necessary, particularly after *Action Process*. As P7 explained:

"We believe very much in praxis, which is the on-going sustained interaction between the concept and the action. So, there's got to be back and forth the whole time; otherwise, it's a mess. So, once they say just do a bit of research at the beginning and give us the formula and we'll do the project you've had it, you may as well stop now."

Every new iteration or revisiting of a process step creates new opportunities for *Stakeholders* to create affordances and amplify positive engagement patterns, as explained by P4. Iteration also means that a lack of resources or funding at a point in time does not have to terminate a project permanently. As P7 explained, "If we really do have a lacuna for a year or two, somebody else will be able to come in, or some of us, and pick it up and move on with much better goodwill and a starting point, I think."

Ultimately, engagement is enhanced by “the regularity, the consistency in the manner in which you conduct these conversations, the congruency in the messaging, the building of trust”, according to P6.

As well as being a *Collaborative* and *Iterative Process*, *Stakeholder Engagement* is finally an *Adaptive Process*. Findings in respect of this sub-theme have been presented in the next sub-section.

#### 5.4.5.6 Sub-Theme 2.5.6 – Adaptive Process

The sense-making framework proposes that the *Stakeholder Engagement Process* is an *Adaptive Process*, which requires *Stakeholders* to assimilate and constantly adjust to emergent conditions and information.

As indicated in previous sections, especially sub-section 5.4.5.2, *Stakeholder Intentions* inform and frame what *Stakeholders* do in the context of the *Wicked Problem*. However, as P8 stated, “you might have a plan, but you're going to probably improvise along the way”. As the context and *Stakeholders* change, so the nature of the interactions change, and the plans change. P3 proposed ‘Some of the signs of definite engagement will be adaptive, supportive, enhanced performance, focused, effective communication.’.

Previous sections have already alluded to the need for *Stakeholders* to be constantly learning and personally adapting. As P8 put it, “Just because things have always been this way doesn’t mean it has to continue and you kind of have to adapt with change and with the times.”.

Having an *Adaptive Process* requires adaptive people who are ready to learn. P2 proposed that a key stakeholder asset is “a strong sense of curiosity, I think that comes from assuming that you know much less than you do know and that's a constant learning process you're under constantly”. P1 asserted further, “we have no cooking clue. We're just going to figure this shit out as we go”.

In addition to their personal change readiness, *Stakeholders* need to be able to navigate the challenge adaptively, as illustrated by P4:

“If you see it as an emergent pattern with many interacting – I don't want to call them causes necessarily, but influences and variables, then it means that there are multiple entry points. So, you can become quite experimental and start thinking about if I tweak this variable, or if I shift that constraint, what happens to the pattern? So, you can almost start dancing with it instead of trying to solve it. And in that interacting with the problem, you can start influencing or shifting, moving it into a different state.”

Feedback from the system fuels the *Adaptive Process*. As P4 explained, “So I think it's about learning, feedback needs to be about learning and adaptation.”. P6 contributed, “so it’s those feedback loops, honouring what you’ve set out to do, and if there’s any changes in the plan”. She illustrated this, citing how additional *Stakeholder Engagement* in the early days of Covid-

19 allowed her organisation to “be sure that we could make adjustments to programmes and could align our thinking and extend project timelines, and ensure that we don’t neglect or not comply with our contracts or service level agreements” (P6).

As information emerges within the *Wicked Ecology*, anyone could change their mind “if you don’t have enough information, you're doing the best that you can with what you currently know, you need to reserve the right to change your mind” (P4). This adaptiveness is one of the reasons why regular reconnection is so important, as discussed in the previous subsection. It also requires a great deal of trust in the process. As P2 outlined, “Trust in the process because I would say genuine *Stakeholder Engagement* means always that you have to let go of a certain level of control of results.”.

An *Adaptive Process* means “if you get it wrong, change it” (P4). P7 expanded, “if you're not getting that outcome, you must change that lower thinking, so you're thinking one level higher. And if the outcome is wrongly perceived, then you've got to go and change the goal, and if the goal is wrong, you can see it”. P7 has worked extensively with structured *Adaptive Processes* in a *Wicked Problem* context. He observed that it is “a system that’s humanly workable”.

Participants proposed deliberately using change as a tool in their engagement processes. P8 emphasised the role of using new narrative and language “if you start changing the way you talk about a problem, you start seeing things differently and looking for those ways of intervening in different ways”. Consider “What are the boundaries or the constraints at play, and what happens when I shift them?” (P4).

*Adaptive Processes* are built on an expectation of change and have mechanisms for both driving and responding to change. All the major components of the process need to be adaptive, “the four major components and all of those are supposed to be adaptive” (P7). P8 explained that, on the one hand, *Stakeholders* could “think of the future in that way where it's something that you might have a plan, but you're going to probably improvise along the way, so you better be ready and have the tools ready”, but on the other hand “there are futurists who believe that you can construct the future through your imagination and through the stories that you tell” (P8).

*Stakeholders* need to develop “continuous reflective, adaptive processes” (P7) to navigate *Wicked Problems*. Ideally, according to P7, they develop a “culture of the things that happen adaptively” between reified mileposts. He (P7) illustrated what happens when these processes are not adaptive:

“The government in the pandemic, they were suddenly thrust into a position that they had to do adaptive stuff. And they managed to an extent, but they don't have a culture of doing it. They were trying to bring out regulations sort of every two weeks that changed for what they wanted.”

The iterative nature of the *Stakeholder Engagement Process* makes adaptiveness possible. P4 illustrated how changes could be made when *Intention Process* comes around again “hopefully, you learn from it and integrate it into your next kind of evolution of interventions”. When *Stakeholders* know they will be coming around again, they have the safety to say what P5 said: “make a lot of mistakes; that’s how I navigate it”.

This sub-section has presented findings in respect of the *Stakeholder Engagement Process*. The last section of this chapter will summarise the findings presented.

## 5.5 The Sense-making Framework

This chapter achieves the second objective of the study, to differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems. The sense-making framework in **Table 30** is the final iteration for this study of that sense-making framework. It reflects findings from the individual interviews and is an inductive outcome of the reviewed data. It is a subjective, interpretive reframing by the researcher of the key concepts integrating wicked problems, stakeholders and stakeholder engagement. The final sense-making framework in **Table 30** is an imperfect construction, a version of truth, part of the evolution of knowledge and a reflection of the subjective perspectives of the contributors and the researcher (Janzwood, 2021; Ritchie & Lewis, 2003: 13; Saunders *et al.*, 2011: 601). **Error! Reference source not found.** in Appendix 8.9 summarises all the concept definitions included in these findings.

Concepts highlighted in blue are similarly portrayed in both the conceptual framework in Chapter 3 and the sense-making framework in this chapter, although the nomenclature or positioning in the framework may have changed slightly. Concepts highlighted in red were included in the conceptual framework but have been reframed in the sense-making framework. Concepts highlighted in green were not originally represented in the conceptual framework but emerged from the data analysed from the individual interviews. Three concepts which were included in the conceptual framework were not included in that form in the sense-making framework. They were integrated into other themes in the sense-making framework. ‘Stakeholders have intentions’ was integrated into *Stakeholders Choice*. ‘Stakeholders have needs’ was integrated into *Stakeholders Complexity*, and ‘Five forms of Stakeholder Engagement’ was expanded into five new themes with sub-themes.

The sense-making framework provides a tool to improve understanding of the wicked problems, stakeholders and stakeholder engagement and to apply that understanding to these very complex, changing and conflictual challenges. The sense-making framework emphasises the dynamics and demands of wicked problems. This understanding assists stakeholders to grasp what they are tackling and to align their efforts with these realities. The framework enhances understanding of stakeholders as people, especially their five-fold

nature and assists stakeholders to consider factors such as identity and choice, as well as the power dynamics which impact issues of access and influence.

Lastly, the sense-making framework encourages stakeholders to consider stakeholder engagement from new and different angles and to appreciate the multiple potential points of access to increase effectiveness. The sense-making framework seeks to augment existing theory and close some of the practice gaps highlighted in Chapter 3 by fostering ideas for developing stakeholder engagement processes, deepening insight into problem demands and considering ways to diminish power differentials and create more egalitarian processes, among other improvements.

**Table 30 Sense-making Framework Final**

<b>Meta-theme 1 - Wicked Problems</b>		
<b>Theme 1.1 - Problem Dynamics</b>		
Sub-theme 1.1.1 Problem Complexity	Sub-theme 1.1.2 Problem Change	Sub-theme 1.1.3 Problem Conflict
<b>Theme 1.2 - Problem Demands</b>		
Sub-theme 1.2.1 Illusive Problem	Sub-theme 1.2.2 Intractable Problem	Sub-theme 1.2.3 Intimidating Problem
Sub-theme 1.2.4 Impactful Problem	Sub-theme 1.2.5 Imperative Problem	Sub-theme 1.2.6 Influenceable Problem

<b>Meta-theme 2 – Stakeholders</b>			
<b>Theme 2.1 - Stakeholder Dynamics</b>			
Sub-theme 2.1.1 Stakeholder Complexity	Sub-theme 2.1.2 Stakeholder Change	Sub-theme 2.1.3 Stakeholder Conflict	
<b>Theme 2.2 - Stakeholder Agency</b>			
Sub-theme 2.2.1 Stakeholder Identity	Sub-theme 2.2.2 Stakeholder Choice	Sub-theme 2.2.3 Stakeholder Power	Sub-theme 2.2.4 Stakeholder Vulnerability
<b>Meta-theme 3 - Stakeholder Engagement</b>			
<b>Theme 3.1 - Stakeholder Interaction</b>			
Sub-theme 3.1.1 Interaction Connection	Sub-theme 3.1.2 Interaction Intention	Sub-theme 3.1.3 Interaction Action	
<b>Theme 3.2 - Stakeholder Investment</b>			

Sub-theme 3.2.1 Social Investment	Sub-theme 3.2.2 Physical/ Practical Investment	Sub-theme 3.2.3 Intellectual Investment	Sub-theme 3.2.4 Spiritual Investment	Sub-theme 3.2.5 Emotional Investment
<b>Theme 3.3 - Stakeholder Enrolment</b>				
Sub-theme 3.3.1 Social Enrolment	Sub-theme 3.3.2 Physical/ Practical Enrolment	Sub-theme 3.3.3 Intellectual Enrolment	Sub-theme 3.3.4 Spiritual Enrolment	Sub-theme 3.3.5 Emotional Enrolment
<b>Theme 3.4 - Stakeholder Engagement Experience</b>				
Sub-theme 3.4.1 Social Experience	Sub-theme 3.4.2 Physical/ Practical Experience	Sub-theme 3.4.3 Intellectual Experience	Sub-theme 3.4.4 Spiritual Experience	Sub-theme 3.4.5 Emotional Experience
<b>Theme 3.5 - Stakeholder Engagement Process</b>				
Sub-theme 3.5.1 Connection Process	Sub-theme 3.5.2 Intention Process		Sub-theme 3.5.3 Action Process	
Sub-theme 3.5.4 Collaborative Process	Sub-theme 3.5.5 Iterative Process		Sub-theme 3.5.6 Adaptable Process	

## 5.6 Conclusion

This chapter has presented the findings from the individual interviews. It answered the third secondary research question and achieved the second objective of the study.

The sense-making framework constructed in this chapter created a lens for understanding the concepts of *Wicked Problems*, *Stakeholders* and *Stakeholder Engagement*. It was created with a view to improving *Stakeholder Engagement* in the context of *Wicked Problems*.

The findings from the focus group are presented in Chapter 6 for two reasons. Firstly, this chapter is already very long and detailed and focuses on the development of the sense-making framework. Secondly, the focus group was convened to critique the framework and to make recommendations in respect of the application of the framework to improve stakeholder engagement in the context of wicked problems. It is, therefore, logical to include the findings from that fieldwork in the chapter dedicated to the conclusion and recommendations.

The final chapter, which follows, concludes the study, makes recommendations to answer the final secondary research question and finally confirms the achievement of the research objectives and aim.





## 6 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Introduction

The previous chapter presented the research findings and the final version of the sense-making framework constructed in this research process. This final chapter concludes the study. The findings from the focus group are presented to answer the last secondary research question. Recommendations are provided regarding how research findings might be applied, especially in the context of wicked problems. The researcher summarises the research findings, highlighting answers to the research questions. Points of integration with the TIPS™ Managerial Leadership Framework are demonstrated, and limitations of the study are identified. Finally, the researcher recommends future research possibilities which have emerged from this study and points out the significance of the research to the academic environment before finally reviewing and confirming the research process and achievement of the aim of the study.

### 6.2 Research Conclusions

The research can be considered successfully concluded when the aim and objectives have been achieved. The research problem explored in this study was the apparent failure of stakeholder engagement to respond effectively to wicked problems. Whilst the study did not set out to directly impact these huge issues, it sought to improve the understanding of three key concepts to support improved stakeholder engagement: wicked problems, stakeholders and stakeholder engagement.

The researcher aimed to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems by answering four secondary research questions and the primary research question, 'How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?'. The following sub-sections will present the research conclusions and summarise the answers to each of the research questions. The first objective of the study focused on exploring current framing and on beginning to reframe the three key concepts.

#### ***6.2.1 Exploring and Reframing Wicked Problems, Stakeholders and Stakeholder Engagement***

The first objective, and the first two research questions that supported it, were originally presented in **Error! Reference source not found.**. An extract from that table is included for reference:

**Extract from Table 3 Summary of Research Project (Duplicated).**

<p><b>RO1</b></p> <p>Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.</p>	<p><b>SRQ1</b></p> <p>What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</p>
	<p><b>SRQ2</b></p> <p>How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</p>

Exploration of the three key concepts extended throughout the study, but these two secondary research questions founded the research and were primarily resolved in two key activities: a literature review and the development of a conceptual framework. These activities enabled the exploration of the current theoretical framing of the three key concepts and an initial consideration of alternative framings of the same concepts.

*6.2.1.1 The Literature Review*

The first secondary research question was largely answered by conducting the literature review presented in Chapter 2. The review focused on the three key concepts selected to achieve the aim of the research: wicked problems, stakeholders and stakeholder engagement. To inform the review of stakeholder engagement, the concept of engagement was first considered. This exploration revealed five alternative forms of engagement: engagement as interaction between stakeholders, engagement as personal investment, engagement as behaviour intended to lead or involve others, engagement as a process and engagement as experience. These perspectives revealed the potential for a deeper and more nuanced understanding of engagement that informed an alternative framing of stakeholder engagement later in the study. The study of engagement also revealed different 'non-engagement' concepts. They were only mentioned in the study for the sake of completion but offer the potential for more nuanced and pragmatic insights into stakeholder engagement, especially over the long term.

Stakeholders were also explored in the literature, revealing an emphasis on organisation-centric and significance-focused perspectives of stakeholders. Clinical and binary classification approaches were uncovered, which assessed stakeholders based on their importance, centrality or influence in the system. What seemed to be missing from the literature was a deep sense of who stakeholders are as people, what they really want and how such an understanding might enable more effective engagement of and between them.

This commercial view of stakeholders tended to influence the definitions of stakeholder engagement. The literature mostly seemed to ignore a boundary-crossing phenomenon.

Designated leaders, influential organisations and social structures were assumed, even in the context of wicked problems, which are seldom the responsibility of any one organisation. The origins of the concept in policy studies seem to have established the central authority perspective. This focus reinforced the 'engagement as behaviour intended to lead or involve others' view of stakeholder engagement, with the added dimensions of goal-directed, largely mechanical approaches and entrenched power dynamics. These dynamics were not strongly apparent to the researcher at the time the review was conducted.

The wicked problem literature revealed how these issues are enormously challenging and interconnected, that they span many boundaries and the level of difficulty they pose for very large groups of stakeholders with conflicting perspectives, priorities and values. Previous researchers such as Danken *et al.* (2016), Rittel and Webber (1973), and Head and Xiang (2016) framed Wicked Problems in terms of the presenting qualities of the problem. The exploration revealed the importance of the ecologies in which these problems flourish and began to suggest systemic qualities that might have a particular impact on stakeholders. A number of different theoretical views emerged, which highlighted the challenges and increasing prevalence and relevance of these issues rather than offering effective approaches. Daviter (2017) and Carcasson and Sprain (2016) were notable exceptions. The Covid-19 pandemic seems to have raised consciousness of these pervasive challenges.

The alternative framing of the three key concepts required to answer the second secondary research question occurred through the development of the conceptual framework. Whilst this continued through the rest of the study, it was then focused on the development of the sense-making framework, which was required to answer the third secondary research question.

#### *6.2.1.2 The Conceptual Framework*

The conceptual framework proposed by the researcher in Chapter 3 was informed by the literature review. Focused on the three key concepts, the framing proposed by the researcher of these concepts was each, in part, influenced by a different alternative lens. The conceptual framework is summarised in

**Table 31**, showing the main concepts only.

**Table 31 Summary of Conceptual Framework**

<b>Alternative Framing for Wicked Problems</b>				
Wicked problems are contained in problem ecologies				
Problem ecologies are systemically complex.	Problem ecologies are constantly changing.		Problem ecologies are fraught with conflict.	
Demands of wicked problems				
<b>Alternative Framing for Stakeholders</b>				
Stakeholders are whole, five-fold beings				
Stakeholders are individual or collective agents, animate or inanimate				
Stakeholders have intentions.	Stakeholders make choices.	Stakeholders have needs.	Stakeholders change.	
<b>Alternative Framing for Stakeholder Engagement</b>				
<b>Five forms of stakeholder engagement</b>				
Stakeholder engagement describes five distinct but interrelated concepts.				
Stakeholder interactions	Stakeholder investment	Leading stakeholders	Stakeholder experience	Stakeholder engagement process

The alternative framing of wicked problems directed attention to the dynamics which seem to foster their existence, sparked in part by the work of Fenn and Hobbs (Fenn & Hobbs, 2015) and Irwin *et al.* (Irwin et al., 2015), who introduced the concept of the problem ecology. This frame focused on the complexity, change and conflict from which wicked problems emerge. Whilst the sense-making framework returns the focus to wicked problems, the conceptual framework raised awareness of the interconnectedness of these issues with their founding context, the fractal nature of their characteristics, and the extent to which stakeholders are embedded in wicked problems.

The alternative framing of stakeholders was influenced by the researcher's ontology and introduced the wellness perspective of Beauchemin *et al.* (Beauchemin *et al.*, 2019), describing stakeholders as whole, five-fold, social, physical, intellectual, spiritual and emotional (SPISE) beings. The alternative framing of the stakeholder engagement concept was

influenced by the five linguistic forms of engagement and established a foundation to explore a less organisation-centric, hierarchically-based, and more boundary-crossing approach.

### 6.2.2 Constructing a Sense-making Framework

The second objective, and the third research question that supported it, were originally presented in **Error! Reference source not found.**. An extract from that table is included for reference:

#### Extract from Table 3 Summary of Research Project (Duplicated).

<p><b>RO2</b></p> <p>Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.</p>	<p><b>SRQ3</b></p> <p>How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</p>
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The second secondary research question was achieved when the researcher conducted ten individual interviews with key participants to explore wicked problems, stakeholders and stakeholder engagement with them. The data collected in this process were used to construct a sense-making framework, presented in Chapter 5 and summarised in **Table 32**, showing meta-themes and themes only.

**Table 32 Summary of Sense-making Framework**

<b>Meta-theme 1 - Wicked Problems</b>
Theme 1.1 - Problem Dynamics
Theme 1.2 - Problem Demands
<b>Meta-theme 2 - Stakeholders</b>
Theme 2.1 - Stakeholder Dynamics
Theme 2.2 - Stakeholder Agency
<b>Meta-theme 3 - Stakeholder Engagement</b>
Theme 3.1 - Stakeholder Interaction
Theme 3.2 - Stakeholder Investment
Theme 3.3 - Stakeholder Enrolment
Theme 3.4 - Stakeholder Engagement Experience
Theme 3.5 - Stakeholder Engagement Process

The sense-making framework was developed to support improvement in stakeholder engagement in the context of wicked problems. The researcher believes that it allows stakeholders, irrespective of their identities or roles, to integrate alternative views of wicked problems, stakeholders and stakeholder engagement to inform better practice. In the discussion which follows, the researcher's perspectives are complemented by insights from the focus group participants. The group included six practitioners with deep experience in wicked problem environments. Their views generally affirm and augment the findings from the research and indicate specific applications of the sense-making framework to improve stakeholder engagement in the context of wicked problems. Their critiques and comments serve in part to meet the third research objective, which has been further resolved in the recommendations which follow.

The development of this framework revealed and reinforced the dynamic, conflictual complexity inherent in the context of wicked problems and the impossibility of separating stakeholders from their engagement or from the context. The immersive construction process provided a lived experience for the researcher, demonstrating how difficult it was to represent these complex interconnected concepts in a manner that is structured for explanation and sense-making but limits the simplification of the complex interdependent concepts.

The challenge was to model not one but three interdependent complex concepts without losing that complexity. At the same time, the academic mandate was to demonstrate competence by following a somewhat linear research process to frame a highly emergent research reality which, like a wicked problem, only gained coherence in retrospect.

#### 6.2.2.1 *Making Sense of Wicked Problems*

The findings in this research emphasised the context in which *Wicked Problems* emerge and the way in which these problems are experienced by *Stakeholders*.

In examining the sub-themes relating to the theme of *Wicked Problems*, the researcher concluded that *Wicked Problems* are characterised by *Problem Dynamics*, including *Problem Complexity*, *Problem Change* and *Problem Conflict*. In addition, they present *Problem Demands* and *Stakeholders* experience them as *Impactful Problems*, *Imperative Problems*, *Intimidating Problems*, *Illusive Problems*, *Intractable Problems* and *Influenceable Problems*.

##### 6.2.2.1.1 Problems are Characterised by Problem Dynamics

Complexity, Change and Conflict are three *Problem Dynamics* characteristic of *Wicked Problems* that present an especially difficult environment to *Stakeholders*. The complexity of these challenges makes them enormous and impossible to fully understand. It means that they involve large groups of *Stakeholders* and that actions potentially have unpredictable and far-reaching consequences. The changing nature of these problems makes them impossible to define accurately. It also means that during the time taken to conceive action plans, the situation and needs may well have changed and that constant feedback is vital. Information

must be freely exchanged and repeatedly revisited to confirm its veracity in the moment and in the context. The conflictual nature of *Wicked Problems* highlighted the opposing forces which exist within these systems. Some of the tensions observed related to timeframes, resource constraints, opposing interests and priorities. At the same time, the differences in the system create the opportunity to foster deeper understanding at a very human level and to support innovation. Whilst participants focused on the potential negative consequences of complexity, change and conflict, these three qualities also describe a system which is highly connected, already in motion and imbued with diverse resources.

PF15 highlighted the conflict that exists between the imperatives for speed and for effective engagement of stakeholders in the context of these wicked problems. On the one hand, action is urgently needed. On the other, without effective connection and intention setting, action may have hugely detrimental sequelae. These stakeholder engagement process activities are discussed below.

#### 6.2.2.1.2 Wicked Problems Present Problem Demands

The many descriptors which participants used to explain the impact of *Wicked Problems* on *Stakeholders* were clustered into *Impactful Problems*, *Imperative Problems*, *Intimidating Problems*, *Illusive Problems*, *Intractable Problems* and *Influenceable Problems*, each with very specific implications. *Wicked Problems* were found to really matter because they are potentially so detrimentally impactful. This means that they cannot be ignored and that *Stakeholders* must take responsibility for responding to them. However, *Stakeholders* are often very intimidated by these issues, which seem overwhelming and provoke considerable anxiety, especially since they are illusive and impossible to define accurately. Since engagement is in part a result of the right balance between demands and resources, in the face of these huge demands, effective stakeholder engagement depends on equally huge resources – resources which come from stakeholders. In addition, role and power dynamics play a large part in determining if and how stakeholders engage. The sense-making framework supports the view that wicked problems are intractable and unsolvable. However, this does not mean that they should be ignored or cannot be influenced, a perspective that presents hope to *Stakeholders*.

PF11 emphasised the contemporary and emergent impact of wicked problems, which “arise unexpectedly, they are contemporary, they are things that emerge”. She inferred that while the concept was conceived in policy and planning in the 1960s, it is increasingly relevant now. Covid-19 has served as a very good example.

PF16 illustrated that postponing response in a wicked problem environment can force action. He explained that the Competition Commission in South Africa is getting involved in a sector that “was supposed to solve, self-regulate and self-transform. However, due to the postponement of these actions, the sector is now being pushed into complex decision making to resolve issues of access to market” (PF16).



### 6.2.2.2 Making Sense of Stakeholders

Previous research has focused on stakeholder identity, roles and power dynamics (Du & Kadyova, 2016) and has been strongly influenced by organisation-centric perspectives of *Stakeholders* as role players with the potential to impact the organisational success (Johnston & Taylor, 2018b: 174). This research emphasised who *Stakeholders* are as people rather than what they mean to an organisation.

In examining the sub-themes relating to the theme of *Stakeholders*, the researcher concluded that *Stakeholders* are characterised by the *Stakeholder Dynamics* of *Stakeholder Complexity*, *Stakeholder Change* and *Stakeholder Conflict*. However, they were also found to have *Stakeholder Agency*. As such, the related sub-themes of *Stakeholder Identity* and *Stakeholder Choice* and relative *Stakeholder Power* and *Stakeholder Vulnerability* were highlighted as significant characteristics with an impact on *Stakeholder Engagement*.

#### 6.2.2.2.1 Stakeholders are Characterised by Stakeholder Dynamics

*Stakeholders* and stakeholder groups are highly diverse. Their complexity is reflected in the five-fold aspects of their personhood; their interconnected and inseparable social, physical, intellectual, spiritual and emotional (SPISE) aspects of being. Stakeholder capacity for change creates the potential for them to learn, adapt and change their minds at any time during the process of engagement. The differences between *Stakeholders* create the most potential for conflict but also for innovation. Factors such as their differing needs, perspectives and power within the system create gaps which may be difficult to transcend.

Participants in the focus group alluded to the complex variety in *Stakeholder* communities and their potential impact. PF13 observed that “This is a challenge that we have, because of the different types of stakeholders, their own personalities, what's important to them, what they value, and in bringing in a solution, are they really considering the other people that might be impacted in the long run?”. This view highlights the importance of social and emotional awareness in stakeholders and the need to build empathy and sense-making into engagement processes.

PF14 added, "The one thing that did strike me, and I think it's here, but it's struck me quite intensely is this issue of whoever's there.". He further stressed that *Stakeholders* choose how they show up in interactions. He encouraged “the ability to come into this conversation, this dialogue, this learning process” with an intent that says, “I need to be in an innovative synergistic frame of reference. I'm looking for something more. I'm looking to move beyond where we are. And how do I do that?”, with an intent to “impact the end result”. This insight reinforces the need for stakeholders to contribute more than just their knowledge, skills or resources to wicked problem environments, but to enter and invest as whole human beings.

PF14 commented on the importance of stakeholders being willing to move themselves, alter their scripts and change personally. He further observed that “Conflict in this environment is

affected significantly by change, choice and vulnerability issues.”, The potential and imperative for stakeholder change are highlighted by this participant. His comment emphasised a principle that was really only implied in the framework, the need for stakeholders to be actively evolving while they are involved in the wicked problem. Stakeholders have to be constantly learning about every aspect of the wicked problem context if they are to contribute effectively.

PF15 picked up on *Stakeholder Conflict* when she commented that “Everybody can agree on sustainability. Everybody means something different.” By implication, stakeholders can agree but still disagree, making it vital to engage in processes which at least foster understanding, if not agreement. PF13 observed that as *Stakeholders* consider other perspectives, they have to make decisions about “where I should go and what I should let in and accept and what I should defend at all costs”. This example of interaction-with-self illustrated the effect of self-talk and internal dialogue on stakeholder engagement. It also addressed how *Stakeholder Choice* impacts the bringing in or investment of self by *Stakeholders*.

#### 6.2.2.2.2 Stakeholders have Stakeholder Agency.

*Stakeholder Agency* addresses *Stakeholder Identity*, *Stakeholder Choice* and the impact of *Stakeholder Power* and *Stakeholder Vulnerability*. The identities, roles and responsibilities of *Stakeholders* vary within the wicked ecology and may be impacted by the formal relationships they have with the problem or organisational *Stakeholders*. *Stakeholder Identity* has implications for *Stakeholder Power* and *Stakeholder Vulnerability* within the system, and power differentials can play a significant role in how *Stakeholders* engage. A key quality of *Stakeholders* is the fact that they have intentions and that they can and do choose how to engage.

PF16 asserted that “I think what this framework does is actually shakes up the whole concept of what a stakeholder is.”, As PF11 stated, “stakeholder involvement, who the stakeholders are, their level of influence needs to be very clearly stated”. PF12 affirmed the importance of “how people define themselves in this. So where they are going to position themselves and be supported to position themselves?”. She added, “I think you're on the edge of a linguistic change, as well as a structural and framework change. People don't define themselves as stakeholders. They don't define themselves as the owners of problems unless they're an NGO. They define themselves as people who have a living experience and have thought about solutions that would impact them and their communities. And I think you're at the very edge of something really transformative.”,

PF15 contributed, “One brief word on identity and choice. I think you can have all your stakeholder maps, but some people just don't relate to your wicked problem. Or even if they should, they don't. So it's this identity and choice, which really can influence the entire thing.”, She suggested that motives come from the heart. PF12 commended the potential of the framework to show *Stakeholders* “their shadow” and their rigidity. These comments highlight

the importance of intentionally considering who Stakeholders are and perceive themselves to be within the wicked ecology.

*Stakeholder Power* elicited a lot of discussion among the focus group participants, and its central role in stakeholder engagement was a major insight for the researcher. PF16 proposed that “We often have a parallel organisation, almost in any setting in society. What we see on the company organogram may not be the real power brokers.”, In the focus group, a number of participants alluded to the *Stakeholder Power* that is not in the room, discussing policy bullies (PF11), people and organisations represented by the stakeholders in the room, and non-human stakeholders like rules regulations and contracts (PF14). Both human and non-human stakeholders are often ignored or alternatively are very present through their representatives, who may not even be aware that they are playing a representative role. The voices of many stakeholders are in the room even if they are not physically present, and effective engagement might require regular consideration of the question 'Who is really speaking here?'.

The importance of Stakeholders using their voice was emphasised by PF11, who urged “stakeholders, therefore have a huge role to play and have a voice and we have to use our voice very, very clearly in a very powerful position in place to voice what we feel about a wicked problem, about an issue very quickly”. PF12 expressed the belief that all stakeholders should be able “to articulate to you what that problem is, and also the holistic complexity of the impact on their lives”.

PF14 mentioned that there is risk involved in “opening up and driving” *Stakeholder Engagement Processes*. This is an aspect of vulnerability which was not discussed in the findings and which the researcher would contend forms part of the *Stakeholder Vulnerability* concept.

### 6.2.2.3 Making Sense of Stakeholder Engagement

*Stakeholder Engagement* has traditionally centred on a central organisation linking others, generally with a focus on their own interests (Goodman *et al.*, 2017; Jonas *et al.*, 2018; Lehtinen & Aaltonen, 2020). This research has placed an issue at the centre of the engagement and considered *Stakeholders* to be those with interest in the issue. A linguistic examination of the word engagement also yielded five potential interconnected interpretations of the concept of *Stakeholder Engagement*.

In examining the sub-themes relating to the theme of *Wicked Problems*, the researcher concluded that *Stakeholder Engagement* might be interpreted as *Stakeholder Interaction*, *Stakeholder Investment*, *Stakeholder Enrolment*, the *Stakeholder Engagement Experience* or the *Stakeholder Engagement Process*.

#### 6.2.2.3.1 Stakeholder Interaction

A *Stakeholder Engagement* is an interaction between a *Stakeholder* and another entity. These interactions involve making connection, having intention and taking action. *Stakeholders* may interact with any entity within the problem ecology, animate or inanimate. They may interact with themselves, with each other, with the problem, with information, with feedback or with a process. Interactions are a function of who the *Stakeholders* are when they engage, and each interaction fosters change in the system.

PF14 confirmed the relevance of this theme, stating, "Things that have been affecting me lately is being able to utilise holistic diversity in our interactions.", This comment also speaks to *Stakeholder Enrolment* and the importance of engaging all perspectives and seeing stakeholders as diverse SPISE beings, bringing their whole selves into interactions.

#### 6.2.2.3.2 Stakeholder Investment

*Stakeholder Engagement* is also the investment of personal resources by *Stakeholders* in their interactions within the *Wicked Ecology*. The personal resources which they invest are vested in their complexity and may be social, physical, intellectual, spiritual or emotional. *Stakeholder Investment* is a function of the resources which *Stakeholders* have available (Bakker & Demerouti, 2016) and of their choices (Kahn, 1990). *Stakeholder Engagement* can and should build the capacity and resources of *Stakeholders* to be more and better involved in meeting the demands of the wicked problem.

PF16 proposed that the most accurate measure of commitment on the part of *Stakeholders* is based on where they invest their money. He also asserted that the most powerful *Stakeholders* would "vote with their pockets or vote in favour of their pockets". The *Stakeholder Investment* perspective agrees with this position and takes it further, proposing that true engagement by *Stakeholders* involves the investment of self, investment of time, effort and expertise. Ultimately real engagement is a tangible and usually costly demonstration of commitment.

#### 6.2.2.3.3 Stakeholder Enrolment

*Stakeholders* may be engaged by others who act in such a way as to make investment seem appealing or rewarding. Enrolment is also driven by social, physical, intellectual, spiritual and emotional efforts. This concept is under-represented and warrants further research. The lack of insight shared by participants may reflect the absence of an effective alternative approach to involving others which is not power-based. The researcher proposes that this offers a big opportunity for further research and praxis development.

PF12 suggested that "Your core question about how to engage without power is actually the central one.". This comment directly addresses the need for, and the challenge of, ensuring *Collaborative Processes*, which will be addressed below. PF11 stated that the framework fosters greater clarity and speaks to "addressing those power plays, enabling people to see

that they can make a difference". PF12 also said, "We're seeing lots of things about kind of shift the power of things, but not actually working out who should be in those discursive spaces. What do they need to be able to be supported to be in those discursive spaces as well?". PF11 especially emphasised the need for "moral agency" in these discussions.

#### 6.2.2.3.4 Stakeholder Experience

If *Stakeholders* have a positive experience, they are more likely to engage further in the future. Experiences which are likely to be engaging are also framed in terms of social, physical, intellectual, spiritual and emotional enrichment. Although experiences were mentioned by research participants, their significance in *Stakeholder Engagement* was not highlighted. The researcher contends that stakeholders engage over the long-term because of the return on their personal investment, a return that is rooted in experience and linked to their personal intentions. This is an under-researched area and is probably a significant contributor to building effective *Stakeholder Engagement*, especially in the long term.

#### 6.2.2.3.5 The Stakeholder Engagement Process

The *Stakeholder Engagement Process* considers the engagement of *Stakeholders* over time, ideally with increasing levels of commitment and involvement. The *Stakeholder Engagement Process* was found to involve three key activities, the *Connection Process*, the *Intention Process* and the *Action Process*. Connection brings *Stakeholders* together with different elements of the system and particularly with each other. Once effectively connected, *Stakeholders* can form collective intentions and draft action plans. Putting plans into action creates the opportunity to shift the system and generate feedback to inform further process cycles.

The effectiveness of the *Stakeholder Engagement Process* was found to be dependent on it also being collaborative, iterative and adaptive. To be collaborative requires *Stakeholders* to work together in an egalitarian manner. The iterative nature of the process means constantly revisiting the three key activities both cyclically and sometimes concurrently. This makes allowance for *Stakeholders* to keep their fingers on the pulse of shifts within the system and to support the *Adaptive Process* and the adaptation of *Stakeholders* as the process progresses.

In regard to the *Stakeholder Engagement Process*, PF14 observed, "Something that struck me a lot in solving these kinds of problems is the process game that's played. Your engagement process helps understand that, particularly if you link it back to the power struggle that we talked about." PF11 emphasised, "If we are going to deal as your framework presents it, and it does, it gives us the opportunity to deal honestly with those issues, then I think we need to make people feel safe.",

He further emphasised the critical role of trust-building in the *Stakeholder Engagement Process*, saying, "The key issue is trust. How much trust and how much is this creating trust as we operate together?". PF11 expanded on PF14's comment, stating, "I believe trust in the process. Building trust in the process is becoming increasingly important. Building trust in the

fact that you have a voice giving voice as well to the voiceless.”, She added, "To eventually reach some kind of consensus about innovative solutions, there has to be a huge element of trust, stepping out in this trust.”, As indicated in the findings in 5.4.5.1, that is a key emphasis of *Connection Process*.

PF14 used the word synergy to describe the potential outcome of *Connection Process*, asking, "How do I build synergy of learning and growing from my own scripted perspective and my own knowledge base, and what I think is really, really valuable and what is important in my sphere of thinking and growth, to be able to let in other ideas and then move beyond those because, in terms of wicked, we're moving beyond that to synergy?". Whilst wicked problems are highly interconnected, it is impossible for *Stakeholders* to be fully connected with, or to understand, every aspect of the system. Fostering *Process Connection* may very well be one of the most critical elements of *Stakeholder Engagement* and the *Stakeholder Engagement Process*. As P8 asserted, “stakeholders don't learn to do that”.

### **6.2.3 Excluded Themes**

Participant interviews yielded five additional themes, which the researcher excluded from the findings as they did not directly answer the research questions. However, they are of interest and offer scope for future research and application in praxis, especially with respect to improving the practice of *Stakeholder Engagement*. These themes were *Non-engagement of Stakeholders*, *Stakeholder Systems*, *Resources for Stakeholder Engagement*, *Stakeholder Return on Investment*, and the *Facilitation of Stakeholder Engagement Processes*.

PF11 highlighted the value of building an effective operational, transactional and contextual stakeholder engagement system, which helps to define “Who does what with whom, how do we play in the sandpit? How do we move and shake? What is this thing that we're going to do?”. The excluded evidence from the research suggests that building an effective *Stakeholder System* and effective design and *Facilitation of Stakeholder Engagement Processes* will prove to be important in improving *Stakeholder Engagement* in practice, contributing to better outcomes in the context of wicked problems.

In addition to contributing comments on and critique of the research findings, the final secondary research question was answered by analysing the findings from the focus group interview and integrating the research participants’ insights with the researcher’s own recommendations for the application of the sense-making framework. These recommendations and the focus group participant comments were documented in the next section.

## **6.3 Recommendations**

The final objective, and the last research question that supported it, were originally presented in **Error! Reference source not found.**. An extract from that table is included for reference:

**Extract from Table 3 Summary of Research Project (Duplicated).**

<p><b>RO3</b></p> <p>Review the proposed sense-making framework for coherence and application to improving stakeholder engagement</p>	<p><b>SRQ4</b></p> <p>How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>
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This chapter will answer the final secondary research question, which can be broken down as indicated in **Table 33**

**Table 33 Framing the Sense-making Framework Review**

<p><b>RO3</b></p> <p>Review the proposed sense-making framework for coherence and application to improving stakeholder engagement.</p>		
<p><b>SRQ4</b></p> <p>How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>		
<p><b>Recommendations</b> <b>Tertiary Question 1 (RTQ1)</b></p> <p>Focusing on wicked problems, how could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>	<p><b>Recommendations</b> <b>Tertiary Question 2 (RTQ2)</b></p> <p>Focusing on stakeholders, how could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>	<p><b>Recommendations</b> <b>Tertiary Question 3 (RTQ3)</b></p> <p>Focusing on stakeholder engagement, how could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</p>

The recommendations presented in this section are based on the research findings and seek to answer these questions. Whilst the recommendations could be implemented immediately, additional research as proposed in section 6.6 will continue to enhance the possibilities for improved praxis proposed in this section. In addition, whilst they are presented relative to each of the three key concepts in the research, in reality, they cut across all three concepts. There are probably fractal applications of each recommendation in every part of the system.

**6.3.1 Recommendations Pertaining to Wicked Problems**

*6.3.1.1 Developing Rich Sensing Systems within Problem Ecologies*

*Stakeholder Engagement* would be supported by the development of rich sensing systems within problem ecologies. These systems hold vast amounts of useful and important information, much of which may be illusive, inaccessible or insular. *Stakeholders* are hampered by a lack of insight into considerations such as the structure of the system, the

resources in and available to the system, where change is most rapidly impacting or improving the system, and where tensions exist within the system.

Technology provides the potential to develop the kind of sensing system which the researcher proposes. Every element of the *Wicked Ecology* is a potential sensor which could provide data into an extensive networked system built on the principles of the internet of things. Such a system might make use of technologies such as social network analysis, sensors located in any living or non-living part of the system, narrative research tools and mapping tools. Sophisticated sensing systems would go some way to assisting *Stakeholders* in seeing and making greater sense of the complexity, changes and conflicts in the system.

These systems would support and greatly enhance the stakeholder *Connection Process*, allowing *Stakeholders* to connect to what otherwise may be inaccessible to them and facilitating connections between the *Stakeholders* themselves, especially those with mutual interests or potentially valuable information to share with other *Stakeholders*.

PF16 addressed monitoring, evaluation and feedback, stating

“In any project implementation, there's this milestone called monitoring and evaluation that we think must be done by those project guys. But the stakeholder engagement environment itself gives us all opportunity windows to pause and say, all right, let's not assume you're out. We are all on the same page. What do you hear me say? Are there any concerns? Are there any things we haven't seen? Are there any blind spots?”.

PF11 concurred with the importance of feedback, arguing, "if I'm a stakeholder and I believe that what I'm giving my input into and mental, emotional, spiritual investment, I would like to know that there is some kind of demonstration of what is working and what isn't working after all the engagement. So a monitoring and evaluation process, an iterative process".

#### 6.3.1.2 *Developing Information Repositories within Problem Ecologies*

Not only can technology be used to assimilate information from the system, but it can also be used to disseminate meaningful information to and within the system. In order for information to be of value, it must be well-organised. Outstanding knowledge management systems can potentially go a long way to supporting *Stakeholders* as they seek to engage meaningfully in the context of *Wicked Problems*. Good information is of particular value when *Stakeholders* engage in setting collective intentions. Redefining the ways in which knowledge is defined, boundaried, presented or explored may provide opportunities which have previously not been possible or conceivable.

#### 6.3.1.3 *Utilising Simulation, Modelling and Scenario-Planning Technologies*

Simulation, modelling and scenario-planning technologies make it possible to look into the changing future of the *Wicked Problem* and its ecology and to test the impact of interventions without irrevocably changing the system. Making these technologies available to *Stakeholders*



allows them to actively assimilate potential change and contingency plans into their strategies, rather than allowing them to surprise them.

#### *6.3.1.4 Applying the Sense-making Framework to Wicked Problems in Africa*

The study specifically avoided geographic or industry limits. In an African context, there is enormous scope to apply the understanding gained in this research to approach socio-economic, human rights, legacy and health issues which are exacerbated by environmental issues and institutional weakness, as observed by Niskanen, Rask and Raisio (2021). A decolonised, democratised vision could see African stakeholders collaborate effectively to design innovative solutions to the massive social issues which have plagued this continent for centuries (Bennett, Eglash, Graf, Butoliya, Johnson, Low & Rocha, 2021).

### **6.3.2 Recommendations Pertaining to Stakeholders**

#### *6.3.2.1 Stakeholder Development Initiatives*

In response to the qualities of *Wicked Problems* identified in this research, there would appear to be value in actively developing the personal resources, skills and competencies of *Stakeholders* who are engaged in these issues. For some of these *Stakeholders*, this development might be personally rewarding and encourage further engagement. In addition, the better-equipped *Stakeholders* are, the less likely they are to be intimidated by the problem and the more likely they are to have resources to invest in responses.

#### *6.3.2.2 Creating Interdisciplinary Knowledge-building Collaboratives*

The notion of absence of information in a wicked problem context may well be a myth. There is a wealth of information and knowledge within any system. However, it is not always accessible and organised, and disciplinary boundaries tend to isolate it in discrete and sometimes impenetrable pockets within the system and its ecology. Knowledge-building collaboratives bring stakeholder intelligence into the conversation, fostering deep and insightful thinking and the potential to deepen understanding of the problem and to discover and create innovative responses through the cross-pollination of ideas. In truth, this is a part of *Process Connection*.

PF11 supported the importance of growing “common knowledge, where professional practices come together from a body of people, your stakeholders, and where they then have what we would almost call moral conversations, or ethical conversations”. She proposed that the growth of knowledge could support more rapid progress and moral or ethical conversations. This participant also highlighted the importance of crossing disciplinary boundaries to develop knowledge.

### **6.3.3 Recommendations Pertaining to Stakeholder Engagement**

#### **6.3.3.1 Professional Facilitation of Stakeholder Engagement Processes**

Whilst it may be common for facilitators to be involved in the *Stakeholder Engagement Process*, the researcher recommends increased professionalisation of these practices. Facilitators should be better trained to more deeply understand the dynamics of *Wicked Problems* and *Stakeholder Engagement Processes*. They should also be equipped with skills and exercises developed especially to foster deep, meaningful engagement, informed by this sense-making framework. Facilitators also need to be highly skilled at supporting effective conflict resolution to enable parties with different perspectives to reach an effective consensus. Finally, they need to be able to manage power dynamics and ensure that all *Stakeholders* have a voice and are empowered to engage effectively.

PF14 proposed that the sense-making framework could inform this professional facilitation, stating, "I understand that you have basically said the return on investment and the facilitation process is excluded, but it does help us in the facilitation process. And it does help us in the process of saying where do we want to get a return? And how do we want to get a return?"

PF14 alluded to the importance of developing stakeholders when he said, "It does give a great deal of thought and structure about who. Because that's important, who do we engage? And how do we prepare them? The value here is looking at those constructs, looking at those points of intersection. It really does allow us to get the right people in the room to be able to understand what they need to wrestle with."

#### **6.3.3.2 Utilising Innovation Strategies to Improve Intention Practices**

The research demonstrates the importance of *Intention Process* activities in the *Stakeholder Engagement Process*. Participants clearly indicated that these activities should generate collective intentions and action plans focused on safe-to-fail experiments. Based on the literature review, the researcher recommends that these activities should emphasise and involve emerging innovative technologies and practices.

PF11 introduced the need for innovation, commenting that *Stakeholders* should "try and emerge with something new, different, innovative". She added, "Innovation comes as you each come with your professional practice into a space with this moral agency to get things done, have these discussions.". PF14 illustrated the constraints on innovation:

"Often stakeholders start to think innovatively, but they are bound by the rules that they have. How do I move forward and be of value and find really innovative solutions without breaking the box? And that's where the conflict comes in. Am I prepared to move not to break the box because of my leaning or my personal agenda, but within the rules and frameworks that I'm given?"

The potential role of technology in fostering innovative solutions was illustrated by PF16 and PF12. PF16 explained:

"Blockchain is all about decentralising power. It's all about power-sharing. It's about how we rethink power-sharing around remittances. We have a meeting this week with a global humanitarian agency that is still standing. It's been in the game for 41 years. Last year, they brought in 15 billion in revenue, and they impacted the world through 8000 implementation agencies. They're saying we need to rethink our trust in terms of our accountability measures to this other group of stakeholders called investors."

PF12 observed, in the context of the 2022 invasion of Ukraine by Russia, that :

"People had an absolute need and desire to give straight to Ukrainians. And the financial system wouldn't allow them to do that. So they hacked the financial system, people used AirBnB, they used eBay, they used other ways to get funding from one person to another that they trusted. The challenge now is to take what we've learned from that and expand that into this framework. If somebody comes up with a better solution to the wicked problem, our collective responsibility is to support that alternative solution, wherever it comes from, and that is truly empowering.",

#### *6.3.3.3 Utilising the Framework to Inform Evaluation of Stakeholder Engagement*

The framework could be used to inform the evaluation of stakeholder engagement processes. PF11 advised that in her context, new policies require "people in power to show whom they've engaged with what the people said, why or why not and if they listened or did not listen in a stakeholder discussion".

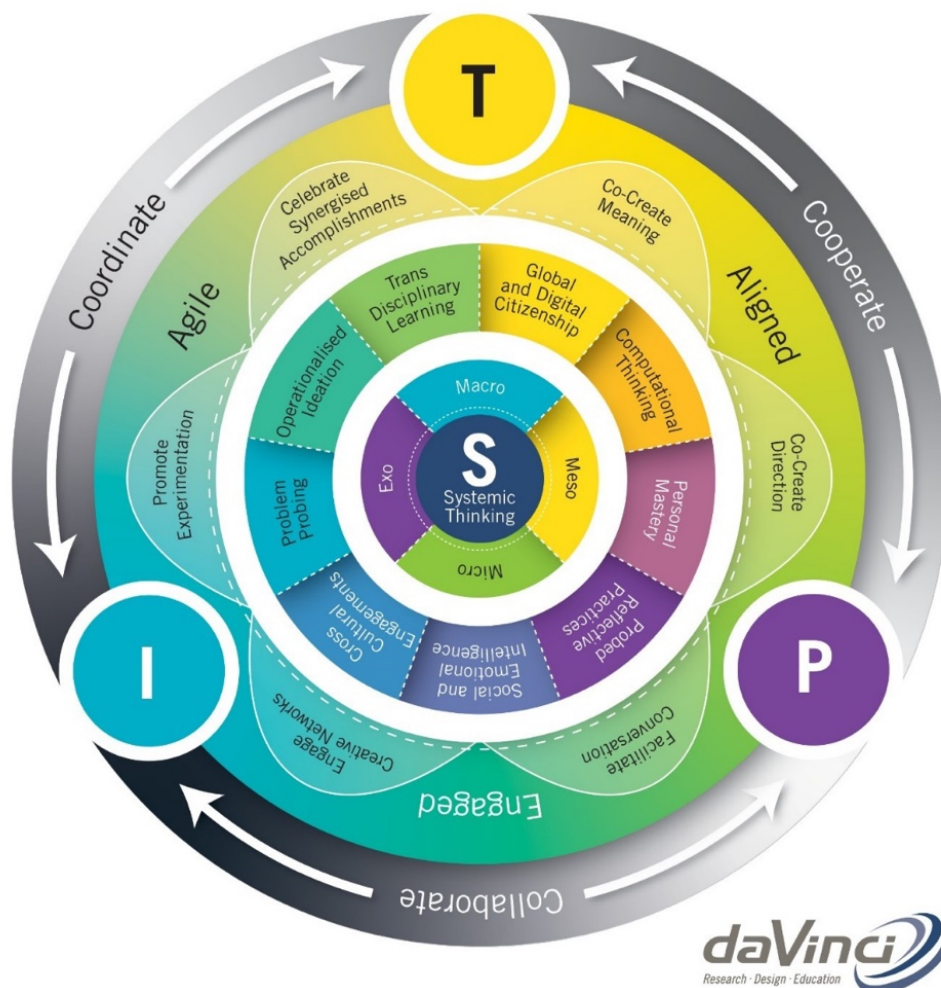
#### *6.3.3.4 Applying the Sense-making Framework to Organisational Behaviour*

The research deliberately took the focus off organisations, and senior leaders since the researcher was interested in wicked problems which are not generally faced by an organisation, although organisations are stakeholders with a stake in these issues. She wanted to de-emphasise the power of both organisations and senior leaders in these systems to allow for new insights to emerge. However, having taken this egalitarian perspective, the sense-making framework now needs to be fed back into organisations to allow them to reframe wicked problems, stakeholders and stakeholder engagement in their context and from their perspective. Business has a responsibility to be involved in these issues, both in terms of their role in society and in terms of mitigating the impact of these issues on organisational health and effectiveness (Reinecke & Ansari, 2016).

The researcher and the participants in the focus group agreed that these recommendations and possibilities could be enabled and informed by the application of the sense-making framework.

### 6.3.4 Integration with the TIPS™ Framework

Da Vinci's TIPS™ Managerial Leadership Framework illustrated in **Error! Reference source not found.** assists leaders and managers to co-create performance solutions which are relevant in the context of a networked creative economy. It fosters systemic awareness and promotes insight into the mental models which impact performance. It provides a lens through which researchers can make sense of and reconsider the realities which they explore. The framework is built around an understanding of the need to interlink the leadership and management of technology, innovation, people and systems (Da Vinci Institute, 2021).



**Figure 3 The TIPS™ Managerial Leadership Framework**  
(Da Vinci Institute, 2021).

The evaluation of the sense-making framework in the final focus group was informed by the TIPS™ Framework (Da Vinci Institute, 2021). This additional perspective highlighted the potential for technology to be employed to support effective *Stakeholder Engagement Processes*.

The systemic perspective advocated in the TIPS™ Framework (Da Vinci Institute, 2021) is evident in the conclusions of this study. In particular, the sense-making framework developed through this research demonstrated the multiple levels of the system that are integrated in the *Wicked Ecology*. In a global or macro-system, a wicked ecology could be viewed as an exo-system, stakeholder engagement a meso-system and stakeholders a micro-system. Examples of interactions between these levels of system is briefly illustrated in sub-section 3.5.1.1. Some fractal patterns became evident and were useful to frame the findings from the analysis of participant data. Systems thinking was especially relevant in understanding the complexity of *Wicked Problems* and the systemic context in which they occur.

The research highlighted the potential for technological tools to be actively and intelligently employed to enhance insight into *Wicked Problems* and to support improved *Stakeholder Engagement*, and recommendations were made in this regard. It is anticipated that burgeoning technological development will provide many new potential solutions in the foreseeable future, and managing this development will be an important part of the role of managerial leaders engaging in this context.

The role of innovation in *Stakeholder Engagement* was highlighted in the literature review and mentioned in the conceptual framework. However, it was not deeply explored in participant interviews and provides the opportunity for future research. The researcher has recommended that it is of particular relevance in the *Intention Process* of the *Stakeholder Engagement Process*.

The researcher's ontology and the five SPISE aspects of personhood (Beauchemin et al., 2019) have featured strongly as a sense-making tool for understanding people in this research and applying this understanding to the engagement of *Stakeholders*. This framing has provided a more granular understanding of how *Stakeholders* might engage or invest their personal resources in engagement activities, what experiences might promote further engagement and how facilitators or managerial leaders might promote or invite further engagement by *Stakeholders*.

The TIPS™ Framework (Da Vinci Institute, 2021) also proposes the emergence of an agile, aligned and engaged workforce. This research has focused on the concept of engagement by *Stakeholders* working in the context of *Wicked Problems*. Whilst the TIPS™ Framework (Da Vinci Institute, 2021) places engagement at the interlink between innovation and people, this research does not make that distinction. This study promotes a systemic view of *Stakeholder Engagement* as interaction, investment, enrolment, experience and process of whole people engaged with the *Wicked Ecology*. This research would see innovation as a part of that

ecology. The principles of agility and alignment are not specifically addressed in the study but are evident in the proposal that the *Stakeholder Engagement Process* should be iterative and adaptive.

The TIPS™ Framework (Da Vinci Institute, 2021) describes three emerging workplace realities, being co-ordinated workplaces, collaborative workplaces and cooperative workplaces, with a progression through these to less centralised governance. This aspect of the TIPS™ Framework (Da Vinci Institute, 2021) was developed during the course of the researcher's study. The researcher had already referenced and preferred the naming convention used by Asoka (2016), which proposes the use of the word collaboration to refer to the most evolved concept. The word "collaboration" in this research should be viewed as the same concept as 'co-operation' in the TIPS™ Framework (Da Vinci Institute, 2021).

The research has demonstrated the applicability of all of the nine managerial competencies included in the TIPS™ Framework (Da Vinci Institute, 2021). They have not been highlighted specifically in the research, but reference has been made to transdisciplinary learning, global and digital citizenship, computational thinking, personal mastery, reflective practices, social and emotional intelligence, cross-cultural engagement, problem-probing, and operationalised ideation.

The *Stakeholder Engagement Process*, in particular, has also demonstrated and supported the importance of a process which facilitates conversations in creative networks, co-creates meaning and direction and which promotes experimentation and celebrates synergistic accomplishments.

#### **6.4 Significance of the Research Study**

Wicked problems have been researched since the 1960s, with a particular emphasis on public planning and policy-making. However, it is only in recent years that research has begun into the engagement of stakeholders in this context. Indications are that stakeholder engagement efforts are not always successful. This study contributes to an expanded understanding of the concepts of wicked problems, stakeholders and stakeholder engagement to enable better sense-making and improved stakeholder engagement outcomes.

Although the study contributes some additional insights into wicked problems and numerous insights into stakeholder engagement, its particular value lies in an expanded understanding of stakeholders as people who invest in interactions and processes and of stakeholder engagement as a process focused on responding to these wicked problems.

During the focus group interview, participants were invited to comment on the value of the sense-making framework and how it might contribute to improved stakeholder engagement in the context of wicked problems. Their responses were supportive of the sense-making framework as it was presented and are documented below without additional comment.

PF11 observed, "It's a very good table. You have really unpacked each of these sub-themes of wicked problems.", She added:

"I really like the framework. I like the layering of the framework, what you've managed to do in looking at personhood, all of those issues, social, physical, intellectual, spiritual, emotional, and layered that together with a stakeholder engagement concept. So I think that, to me, is a very rich way of describing it. It really does get to the heart of stakeholder engagement; people tend to believe stakeholder engagement is maybe an opinion poll or maybe a survey or do you like this soap? But it's not. So what you've done is delve deeper and added a rich layer. It's almost three-dimensional in the way you've looked at it. So I like that very much."

PF15 affirmed, "With your sub-themes, I think you've covered a lot. In the entirety, it will make sense. I can put my stuff into the edge of the different sub-themes."

PF13 focusing on the *Stakeholder* theme commented:

"I really love how you've broken down the stakeholders, physical, emotional. Because usually, one just thinks of maybe either physical presence, but also intellectual, whatever. But never thinking about the holistic. Everybody comes in with different lenses, different positions, different agendas also. These all influence the decision that is taken; these will influence even the decision of what problem needs to be solved. I really love how you've packaged it and broken it down into the different elements because those do play a role in, you know, how a problem is solved."

PF12 said:

"The solutions that are usually offered to wicked problems in my view, and why I think this framework is so exciting, tend to be kind of mono-dimensional, and they also tend to be mono-directional. And I think what you've created here starts from the premise of what is the reality of that person's life? Let's help her explain, understand that she's going to have very different perspectives that are actually going to help solve the problem and validate her experience."

PF14 commented that "This model looks complex, but actually there is a lot of simplicity – identifying where we have to think to use everybody's holistic diversity of thinking and experience as we move to new solutions. It does give you the ability to move towards simplicity.",

PF11 supported the originality of this perspective, stating:

"The meanings of engagement, how you have unpacked it into action, investment, etcetera, are important. I like the stakeholder investment in the way you've unpacked it as social and spiritual and physical - all of those issues that you've set out. Then we don't

often think of stakeholder engagement in terms of stakeholder investment, what the person is putting in and getting out of it.”.

## 6.5 Limitations of the Study

Several limitations are associated with this study. *Wicked Problems*, *Stakeholders* and *Stakeholder Engagement* are all complex subjects on their own, and this research explored the interface of all three. The researcher constantly struggled to limit the study and ultimately had to establish some boundaries to contain the exploration and especially the findings. She specifically chose to exclude some themes from the written findings. Participants provided rich data regarding the non-engagement of stakeholders, the qualities of an effective stakeholder engagement system, resources within the wicked ecology, return on *Stakeholder Investment* and the facilitation of *Stakeholder Engagement Processes*. Although the data were analysed, the findings were excluded from the discussion on the basis that they did not directly answer the research questions. However, these findings did inform recommendations emanating from the study and highlighted the potential for future research.

The researcher considers that she could have explored the role and relevance of technology and innovation more thoroughly in her participant interviews. These subjects did not really emerge spontaneously in these semi-structured conversations, where the people and systems considerations were raised by participants repeatedly.

A clear limitation of this study is that the findings have not been tested in praxis. The output of this study is a sense-making framework. In order for this framework to be tested in the field of a *Wicked Problem*, it would first need to inform the development of *Stakeholder Engagement* practices. The excluded themes would be of potential value in this development.

In retrospect, the researcher would have changed the qualifying criteria for her sample population. She believes that it might have been more beneficial to interview more people involved directly in *Wicked Problem* environments, with less attention paid to business leadership. These individuals would have presumably had more personal experience and might have provided more pragmatic and evidence-based responses to the research instrument. However, this was not a phenomenological study, and the more constructivist theoretical approach is acceptable.

In avoiding reference to specific types of *Wicked Problems*, the researcher may have limited insights which may have emerged from the consideration of practical examples. Participants were, however, free to make reference to problems of their own choosing and, where they did so, were able to cite practical examples of the perspectives which they shared.

The research specifically avoided a geographic, disciplinary, industry or business perspective in order to focus on identifying generic principles. This was deliberate because of the boundary-spanning nature of wicked problems.



The researcher recognised that some of the concepts could have been further overlaid or integrated. For example, the *Stakeholder Investment* concept could have also considered investment in the three primary activities of the *Stakeholder Engagement Process* and also integrated the five different forms of investment into each of these activities. However, the researcher elected not to explore these integrations, to limit the scope and duration of the study.

Finally (again?), the researcher acknowledged the limitations of her own perspectives and understanding of these subjects and the research lenses which she chose to apply in the study. She was acutely conscious, especially in the data analysis phase of the research, that she was drawing inferences and interpreting data based on these lenses.

## **6.6 Recommendations for Future Research**

Several opportunities became evident during this study for future research to improve *Stakeholder Engagement* in the context of wicked problems. As with the recommendations, whilst they are presented relative to each of the three key concepts in the research, in reality, since stakeholder engagement in the context of wicked problems is itself a complex construct that cuts across all three concepts, research should also continue to cross these boundaries if it is to be useful.

### **6.6.1 Future Research Pertaining to Wicked Problems**

#### *6.6.1.1 Applying Technology to Understanding Wicked Problems*

The researcher sees numerous possibilities for researching the application of technology to increase the understanding and collective insight into *Wicked Problems*. A study could be conducted to explore the applicability of sensor networks or social network technologies to improve the extent to which stakeholders understand a *Wicked Problem* context. Perhaps even before exploring specific applications, the research could focus on investigating emerging technologies which might have relevance in this context.

#### *6.6.1.2 On-going Research into Strategies to Tame or Mitigate the Effects of Wicked Problems*

The researcher's second abandoned, research topic focused on mitigating the effects of wicked problems. This research could still be conducted, especially at doctoral level. Research would first need to focus on detailing the effects of wicked problems before proceeding to explore ways of mitigating these effects. The researcher believes that this current study could inform the second part of such a study.

#### *6.6.1.3 Increased Research in an African Context*

A study by Niskanen *et al.* (2021) demonstrated that minimal research had been done regarding wicked problems in Africa. That which has been done has focused primarily on

description rather than the local manifestation of, or response to, these issues. Almost half the articles reviewed in this study were focused on South Africa, and the majority were not published by organisations based in Africa. There is an obvious opportunity to study these issues more extensively, and this research study might serve as a point of departure.

## **6.6.2 Future Research Pertaining to Stakeholders**

### *6.6.2.1 Development of New Governance Frameworks*

One of the key challenges highlighted in the research involved the role of power dynamics and the ideal of egalitarian, collaborative governance structures. Since wicked problems are owned by humanity rather than by organisations or countries, there is no obvious owner of any of these issues. Future research focused on how these empowering governance structures might be conformed and established, despite the obvious power conundrums, would be very interesting.

## **6.6.3 Future Research Pertaining to Stakeholder Engagement**

### *6.6.3.1 Exploring and Developing Concepts Related to the Non-Engagement of Stakeholders*

This research revealed insights into phenomena which were not stakeholder engagement, such as stakeholder disengagement, ineffective stakeholder engagement practices, stakeholder management and non-engagement concepts such as burnout, workaholism and boredom, which might have relevance in the stakeholder engagement context. Further constructivist or phenomenological research into the dynamics of these non-engagement concepts could enhance understanding of how to improve engagement and, more importantly, how to prevent its antitheses.

### *6.6.3.2 Intrapsychic Dynamics of Stakeholder Engagement*

Whilst this research presented detailed findings regarding the different ways in which stakeholders invest, and why they might be motivated to do so or be enrolled by others, the researcher believes that there is more insight to be gained into these dynamics. For example, further exploration could enhance the understanding of stakeholder experience and its role in motivating long-term, meaningful engagement in *Wicked Problems*. Research could also be directed towards understanding the ebbs and flows of investment and their relationship to stakeholder resources, resilience and retention.

### *6.6.3.3 Epistemology in Praxis*

An ideal next research step would involve further exploration into the practical application of this sense-making framework in praxis, possibly through the development of stakeholder engagement practices which could be field-tested in the context of *Wicked Ecologies*. The researcher believes that the *Stakeholder Engagement Process* and the undeveloped themes of *Non-engagement of Stakeholders*, *Stakeholder Systems*, *Resources for Stakeholder*

*Engagement and the Facilitation of Stakeholder Engagement* provide particularly interesting fields for this further study. The researcher would be especially interested in research focused on improving the *Connection Process, Intention Process, and Action Process* of the *Stakeholder Engagement Process*.

## **6.7 Achievement of the Research Aim**

This chapter has presented evidence to support the achievement of the aim of the research. The first objective was primarily met by conducting an extensive literature review and developing a conceptual framework. The second objective was primarily met through field research and the construction of a sense-making framework. The final objective was achieved through conducting a focus group with experienced practitioners and applying the findings to the research conclusions and recommendations in this chapter.

This research has proposed a sense-making framework for improving stakeholder engagement in the context of wicked problems by meeting the following objectives:

1. RO1 - Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement;
2. RO2 - Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems;
3. RO3 - Review the proposed sense-making framework for coherence and application to improving stakeholder engagement.

## **6.8 Conclusion**

This final chapter concludes this study which aimed to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems. The research project was shaped by the researcher's relativist ontology. Knowledge has been managed and developed according to a subjectivist epistemology (Saunders *et al.*, 2011: 111, 115) and applied through a social constructivist/ interpretivist research paradigm. That paradigm supported an exploratory design and inductive generation of theory from qualitative data. A small group of participants were selected using qualitative sampling methods, and qualitative data were collected and analysed qualitatively to generate the sense-making framework.

In the first chapter of the research report, the researcher introduced the study and her ontology and epistemology. She presented the research problem and the structural framework for the study, as stated above. In Chapter 2, she presented a literature review focused on engagement, stakeholders, stakeholder engagement and wicked problems. Chapter 3 presented a conceptual framework for wicked problems, stakeholder engagement and stakeholders, and Chapter 4 provided a detailed explanation of the research design and methodology, outlining actual challenges encountered during the research process and explaining data collection and analysis practices. In Chapter 5, the researcher presented the

findings from the individual interviews and simultaneously constructed a sense-making framework to summarise and integrate these into a useful research output.

Finally, in this chapter, the researcher highlighted conclusions from the study findings and made practical recommendations based on these conclusions. As a student at the Da Vinci Institute, the researcher pointed out how the research integrates with the Da Vinci TIPS™ Managerial Leadership Framework (Da Vinci Institute, 2021). She explained the limitations of the study and made recommendations for future potential studies, which became evident through this research process.

This last chapter concludes the study, and the researcher ends by stating, 'Like a wicked problem, research is probably best understood in retrospect. In retrospect, the most critical question might have been, 'Where is this going and when it gets there will it answer the research question and achieve the research aim?'. Repeatedly asking and answering that question might have been a useful strategy to contain the study's bias towards divergence.'

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## 8 APPENDICES

### 8.1 Appendix 8.1 – Research Instrument

***Research Instrument***

A SENSE-MAKING FRAMEWORK FOR STAKEHOLDER ENGAGEMENT TO MITIGATE  
THE EFFECTS OF A WICKED PROBLEM

**This Research Instrument is for interview participants for research to be conducted for the completion of an MSc Degree MOTI at the da Vinci Institute (Pty) Ltd.**

**Name of researcher: Janet du Preez**

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**Title of Research: A sense-making framework for stakeholder engagement to mitigate the effect of a wicked problem**

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The field work for this study will include

- 10 individual interviews with senior leaders whose primary responsibilities involve the management of strategy, risk, environment, technology, innovation, or people. They will either be known to the researcher in a professional capacity or have been referred to her by a respected professional or academic faculty member.
- 2 focus groups of at least 8 people each, with senior leaders whose primary responsibilities involve the management of strategy, risk, environment, technology, innovation or people.

## Interview Questions

The interview schedule is structured to answer the research question and secondary questions.

### *Research question*

‘What conceptual framing of stakeholder engagement could improve stakeholder engagement in the context of wicked problems?’

### *Secondary questions*

1. SRQ1 - What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?
2. SRQ2 - How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?
3. SRQ3 - How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?
4. SRQ4 - How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?

In the following interview schedule, PQ refers to primary questions which will be asked of participants. AQ refers to additional questions, which may be asked of participants, depending on their responses to the primary questions.

<b>SRQ1 - What current theoretical perspectives frame wicked problems, stakeholders and stakeholder engagement?</b>		
Purpose	Themes	Questions
A review of existing wicked problem, stakeholder and stakeholder engagement constructs and concepts.	The constructs required to create a useful stakeholder concept	PQ - How would you explain stakeholders? AQ – Who are typical stakeholders in the context of wicked problems? AQ – What is a stakeholder? AQ – Why do stakeholders engage? AQ – What do stakeholders need? AQ - What motivates stakeholders? AQ – What is the role of stakeholders?
	The constructs required to create a useful	PQ - How would you explain stakeholder engagement? AQ - What is a stakeholder? AQ - What does a stakeholder system look like? AQ - How do you know that stakeholders are engaged? AQ - How do you know that stakeholders are not

	stakeholder engagement concept.	<p>engaged?</p> <p>AQ - What is the experience of stakeholders who are truly engaged?</p> <p>AQ - What is the experience of stakeholders who are not engaged?</p> <p>AQ - How do leaders engage stakeholders?</p> <p>AQ - How do leaders fail to engage stakeholders?</p> <p>AQ – What does an effective stakeholder engagement look like?</p> <p>AQ – What does it look like when stakeholders are not engaged?</p>
	The constructs required to create a useful wicked problem concept and effects concept.	<p>PQ – What is a wicked problem?</p> <p>AQ – How important are wicked problems? Why?</p> <p>AQ – Explain the systemic nature of a wicked problem?</p> <p>AQ – How is a wicked problem different from other problems?</p> <p>AQ – What effects do wicked problems have?</p> <p>AQ - What are relevant responses to a wicked problem?</p>
<b>SRQ2 - How could wicked problems, stakeholders and stakeholder engagement be alternatively framed?</b>		
Purpose	Themes	Questions
A review and mapping of the relationship between stakeholder engagement constructs and concepts, as they pertain to the context of a wicked problem.	The constructs required to create a useful stakeholder engagement concept in the context of a wicked problem.	<p>PQ – What, if anything is the role of stakeholder engagement in the context of a wicked problem?</p> <p>AQ – Who are relevant stakeholders in the context of a wicked problem, are they related and if so, how?</p> <p>AQ – How do stakeholders become effectively engaged in the context of a wicked problem?</p> <p>AQ – What inhibits effective engagement in the context of a wicked problem?</p> <p>AQ – What are the benefits of stakeholder engagement in the context of a wicked problem?</p> <p>AQ – What are the drawbacks of stakeholder engagement in the context of a wicked problem?</p>
	The constructs required to link stakeholder engagement	<p>PQ – What is the relationship between the different elements of stakeholder engagement and wicked problems?</p> <p>AQ – Which stakeholders should be engaged in the context of wicked problems?</p> <p>AQ – What would effective engagement of stakeholders look like in the context of wicked problems?</p>

	concepts in the context of a wicked problem.	<p>AQ – What would be the experience of stakeholders if they were effectively engaged in the context of wicked problems?</p> <p>AQ - How could leaders engage stakeholders effectively in the context of wicked problems?</p> <p>AQ - What impact could strategy/ risk management/ sustainability issues/ technology/ innovation/ leadership of people/ systems thinking have on the effectiveness of stakeholder engagement in the context of wicked problems? (Depending on expertise of the participant)</p> <p>AQ - How does stakeholder engagement progress over time?</p>
<b>SRQ3 - How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?</b>		
Purpose	Themes	Questions
Explore how stakeholder engagement could be improved in practice based on the application of these insights	Practices which can improve stakeholder engagement in the context of wicked problems.	<p>PQ – Based on these insights, how could stakeholder engagement be improved in the context of wicked problems?</p> <p>AQ – What are ideal outcomes for stakeholder engagement in this context?</p> <p>AQ – How can the challenges of stakeholder engagement be navigated to improve outcomes?</p> <p>AQ – What processes, activities or procedures could improve stakeholder engagement in the context of wicked problems?</p> <p>AQ – Who enables effective stakeholder engagement?</p> <p>AQ - How can stakeholder engagement be positively influenced over time?</p>
<b>SRQ4 - How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?</b>		

## 8.2 Appendix 8.2 – Features of Problem Ecologies Related to Qualities of Wickedness

**Table 34** summarises the links between changing problem ecologies (Irwin *et al.*, 2015) and the qualities of wicked problems explained in section 2.5.

**Table 34 Qualities of Wicked Problems and Change in Problem Ecologies**

<b>Relationships Between the Features of Wicked Problems and the Changing Nature of Problem Ecologies</b>	
<b>Qualities of Wickedness</b>	<b>Implications of Change</b>
<ol style="list-style-type: none"> <li>1. The problem cannot be precisely formulated (Rittel &amp; Webber, 1973).</li> <li>2. There is no definitive solution or end point (Rittel &amp; Webber, 1973).</li> <li>3. Solutions are either better or worse, not right or wrong (Rittel &amp; Webber, 1973).</li> <li>4. No solution can be tested immediately or ultimately (Rittel &amp; Webber, 1973).</li> <li>5. Unclear problem (Head &amp; Xiang, 2016).</li> <li>6. Irreversible consequences (Head &amp; Xiang, 2016).</li> <li>7. Being wrong may have serious repercussions (Rittel &amp; Webber, 1973).</li> <li>8. Uniqueness (Head &amp; Xiang, 2016).</li> <li>9. Knowledge uncertainty (Dentoni <i>et al.</i>, 2018).</li> <li>10. Solution alternatives cannot be accurately quantified, and a finite list of rules cannot be defined (Rittel &amp; Webber, 1973).</li> <li>11. The problem is unique.</li> <li>12. All interventions are one-off irreversible experiments (Rittel &amp; Webber, 1973).</li> </ol>	<p>Change - The changing, evolutionary, organic property of problem ecologies (Irwin <i>et al.</i>, 2015) accounts for some of the observed qualities of wicked problems. The problem is constantly morphing, and it is impossible to precisely formulate a moving target. The problem is thus unique and impossible to accurately define (Danken <i>et al.</i>, 2016; Dentoni <i>et al.</i>, 2018; Head &amp; Xiang, 2016; Keenan, 2020; Rittel &amp; Webber, 1973)</p> <p>Being without precedent, no stakeholder has ever truly encountered the same risks or experienced or solved the same problem before (Burge &amp; McCall, 2015; McMillan &amp; Overall, 2015). Change therefore justifies the knowledge uncertainty, confusion, inadequacy of information and lack of clarity regarding causation associated with wicked problems (Bannink &amp; Trommel, 2019; Burman <i>et al.</i>, 2017; McMillan &amp; Overall, 2015; Newman &amp; Head, 2017; Termeer <i>et al.</i>, 2019).</p> <p>Further, the connections between knowledge development, the emergence of new insight and novel situations exacerbate factual uncertainty but support the development of new perspectives and thinking. As new situations occur within the system, knowledge is challenged and evolves (Bannink &amp; Trommel, 2019; Jacobs, 2017; Keenan, 2020). At the same time, since the state of the system</p>

<p>13. Any number of plausible reasons may be postulated for the existence of the problem (Rittel &amp; Webber, 1973).</p> <p>14. Dynamic complexity (Dentoni <i>et al.</i>, 2018).</p> <p>15. Lack of clear problem definition (Danken <i>et al.</i>, 2016).</p> <p>16. Irresolvability (Danken <i>et al.</i>, 2016).</p> <p>17. Involvement of multiple role players (Danken <i>et al.</i>, 2016).</p> <p>18. Factual uncertainty (Bannink &amp; Trommel, 2019).</p> <p>19. Urgent, simultaneous demands (McMillan &amp; Overall, 2015).</p>	<p>is constantly emerging, neither the same nor different experiments can ever be repeated in exactly the same conditions. Finite conclusions can therefore not be drawn (Head &amp; Xiang, 2016; Rittel &amp; Webber, 1973).</p> <p>Since the system is in constant flux it cannot arrive at a persistent or sustainable solution and any intervention will simply contribute another irreversible dynamic with unpredictable and potentially positive or catastrophic outcomes (Burge &amp; McCall, 2015; Craig, 2020; Head &amp; Xiang, 2016; Keenan, 2020; Rittel &amp; Webber, 1973). The urgency to respond to some temporally wicked problems may also be linked to their rapid negative evolution (McMillan &amp; Overall, 2015).</p>
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**Table 35** summarises the links between complex problem ecologies (Irwin *et al.*, 2015) and the qualities of wicked problems explained in section 2.5.

**Table 35 Qualities of Wicked Problems and Complexity in Problem Ecologies**

<b>Relationships Between the Features of Wicked Problems and the Complex Nature of Problem Ecologies</b>	
<b>Qualities of Wickedness</b>	<b>Implications of Complexity</b>
<p>1. The problem cannot be precisely formulated (Rittel &amp; Webber, 1973).</p> <p>2. The problem is symptomatic of another problem (Rittel &amp; Webber, 1973).</p> <p>3. Being wrong may have serious repercussions (Rittel &amp; Webber, 1973).</p> <p>4. Unclear problem (Head &amp; Xiang, 2016).</p> <p>5. Insolvability (Head &amp; Xiang, 2016).</p> <p>6. Irreversible consequences (Head &amp; Xiang, 2016).</p>	<p>Complexity is rooted in the size of the system and the interconnections and interactions within it (Alford &amp; Head, 2017; Burge &amp; McCall, 2015; Capra &amp; Luisi, 2014: 4; Head &amp; Xiang, 2016; McMillan &amp; Overall, 2015). Issues in one part of the system can knock on to other parts of the system making it difficult to identify primary and secondary issues. Solutions in one part of the system may impact other parts of the system positively or negatively (Braithwaite <i>et al.</i>, 2018; Burge &amp; McCall, 2015; Keenan, 2020; Peters, 2017; Snowden &amp; Boone, 2007; Snowden <i>et al.</i>, 2020: 84).</p>

<ol style="list-style-type: none"> <li>7. Uniqueness (Head &amp; Xiang, 2016).</li> <li>8. Solution alternatives cannot be accurately quantified, and a finite list of rules cannot be defined (Rittel &amp; Webber, 1973).</li> <li>9. The problem is unique.</li> <li>10. Knowledge uncertainty (Dentoni <i>et al.</i>, 2018).</li> <li>11. Dynamic complexity (Bannink &amp; Trommel, 2019; Dentoni <i>et al.</i>, 2018).</li> <li>12. Lack of clear problem definition (Danken <i>et al.</i>, 2016).</li> <li>13. Irresolvability (Danken <i>et al.</i>, 2016).</li> <li>14. Involvement of multiple role players (Danken <i>et al.</i>, 2016).</li> <li>15. Factual uncertainty (Bannink &amp; Trommel, 2019).</li> <li>16. Multiple social and attitudinal variables (McMillan &amp; Overall, 2015).</li> </ol>	<p>Complexity results in unintended systemic consequences, making it impossible to predict outcomes, the future of the system or solutions (Braithwaite <i>et al.</i>, 2018; Burge &amp; McCall, 2015; Head &amp; Xiang, 2016; Keenan, 2020; Kurtz &amp; Snowden, 2003; Peters, 2017; Rittel &amp; Webber, 1973; Snowden <i>et al.</i>, 2020: 71).</p> <p>The problem is too complex to be easily described. The known unknown and unknown unknown features of wickedness explained by Burman, et al. (2017) are consistent with the explanations of Complexity in the Cynefin Framework (Snowden &amp; Boone, 2007; Snowden <i>et al.</i>, 2020: 32, 39) and authors specifically identify complexity itself as a key feature of wicked problems (Alford &amp; Head, 2017; Bannink &amp; Trommel, 2019; Burge &amp; McCall, 2015; Dentoni <i>et al.</i>, 2018; Head &amp; Xiang, 2016).</p>
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**Table 36** summarises the links between conflictual problem ecologies (Irwin *et al.*, 2015) and the qualities of wicked problems explained in section 2.5.

**Table 36 Qualities of Wicked Problems and Conflict in Problem Ecologies**

<b>Relationships Between the Features of Wicked Problems and the Conflictual Nature of Problem Ecologies</b>	
<b>Qualities of Wickedness</b>	<b>Implications of Conflict</b>
<ol style="list-style-type: none"> <li>1. The problem cannot be precisely formulated (Rittel &amp; Webber, 1973).</li> <li>2. Any number of plausible reasons may be postulated for the existence of the problem (Rittel &amp; Webber, 1973).</li> </ol>	<p>Conflict - Different people perceive and frame the problem differently. It will be difficult to agree on the cause or nature of a problem or its solution if perspectives differ or conflict (Head &amp; Xiang, 2016; McMillan &amp; Overall, 2015; Rittel &amp; Webber, 1973). The nature of the knowns and unknowns will differ from stakeholder to stakeholder, based on their</p>



<ol style="list-style-type: none"> <li>3. Being wrong may have serious repercussions (Rittel &amp; Webber, 1973).</li> <li>4. The problem is unique (Rittel &amp; Webber, 1973).</li> <li>5. Knowledge uncertainty (Dentoni <i>et al.</i>, 2018).</li> <li>6. Dynamic complexity (Dentoni <i>et al.</i>, 2018).</li> <li>7. Value conflicts (Dentoni <i>et al.</i>, 2018).</li> <li>8. Lack of clear problem definition (Danken <i>et al.</i>, 2016).</li> <li>9. Involvement of multiple role players (Danken <i>et al.</i>, 2016).</li> <li>10. Conflicting normative judgements (Bannink &amp; Trommel, 2019).</li> <li>11. Urgent, simultaneous demands (McMillan &amp; Overall, 2015).</li> <li>12. Multiple social and attitudinal variables (McMillan &amp; Overall, 2015).</li> </ol>	<p>proximity to the challenge and their knowledge, skills, perceptions and experiences (Burman <i>et al.</i>, 2017; Coleman, 2003; Coleman, 2004; Turnbull &amp; Hoppe, 2019).</p> <p>Value conflicts, clashes, attitudinal variables and opposition across multiple role-players (Carcasson, 2016; Clarke &amp; Ashhurst, 2018: 163; Coleman, 2003; Coleman, 2004; Danken, et al., 2016; Dentoni <i>et al.</i>, 2018; McMillan &amp; Overall, 2015; Newman &amp; Head, 2017; Wakayama &amp; LaPierre, 2017) are different expressions of conflicting normative judgements, a key feature of wickedness according to Bannink and Trommel (2019). These polarities may be exacerbated by conflicting needs and unfavourable repercussions of change, or behavioural responses to the conflict itself (Clarke &amp; Ashhurst, 2018: 163; Coleman, 2003; Vallacher <i>et al.</i>, 2013; Wakayama &amp; LaPierre, 2017).</p>
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### 8.3 Appendix 8.3 – Summary of SPISE concepts

In **Table 37** *Error! Reference source not found.* *Error! Reference source not found.* the researcher categorises some of the related and interconnected concepts, attributes, contributions and needs associated with each of these five aspects of personhood (Beauchemin, et al., 2019).

**Table 37 Five Aspects of Personhood**

Physical Being	
Related Concepts and Attributes	Potential Physical Contributions
Physical intelligence (Oosthuizen, 2017). Behaviour (Chipchase <i>et al.</i> , 2017). Stature (Addoum <i>et al.</i> , 2017). Weight (Addoum <i>et al.</i> , 2017). Body mass index (Addoum <i>et al.</i> , 2017). Body chemistry (Ross-Williams, 2020). Physical health (Addoum <i>et al.</i> , 2017; Oosthuizen, 2017). Genetics (Blignaut & Aronson, 2020; Sullivan, 2018). Gender (Beauchemin <i>et al.</i> , 2019). Height (Addoum <i>et al.</i> , 2017). Physical energy (Oosthuizen, 2017; Schaufeli, 2013: 15). Age (Addoum <i>et al.</i> , 2017). Sensation (Sullivan, 2018). Endurance (Oosthuizen, 2017). Fitness (Oosthuizen, 2017). Dexterity (Oosthuizen, 2017). Muscular strength (Oosthuizen, 2017). Physical activity (Oosthuizen, 2017).	Work (Babatunde, 2013). Physical skills (van den Wijngaard, 2019). Manual skills (Oosthuizen, 2017). Vigour (Bakker & Demerouti, 2016; Schaufeli, 2013: 6). Endurance (Oosthuizen, 2017). Fitness (Oosthuizen, 2017). Dexterity (Oosthuizen, 2017). Muscular strength (Oosthuizen, 2017). Physical activity (Oosthuizen, 2017). Physical energy (Oosthuizen, 2017; Schaufeli, 2013: 15).
Physical Needs	Symptoms of Physical Depletion
Basic human and physiological needs (Gregory <i>et al.</i> , 2020; Konyukhov, 2020; Turkdogan, 2017: 7-11). Safety (Green <i>et al.</i> , 2017; Konyukhov, 2020). Security (Green <i>et al.</i> , 2017; Konyukhov, 2020). Survival (Sullivan, 2018). Water (Turkdogan, 2017: 8).	Fatigue (Maillet, 2018; Schaufeli & Salanova, 2014: 296). Physical ailments (Maillet, 2018). Muscle tension and pain (Maillet, 2018; Maslach & Leiter, 2016). Weight and appetite changes (Irena <i>et al.</i> , 2016; Maillet, 2018).

<p>Shelter (Gregory <i>et al.</i>, 2020; Turkdogan, 2017: 8).</p> <p>Healthy diet (Oosthuizen, 2017).</p> <p>Clean air (Issa, 2018).</p> <p>Sleep (Oosthuizen, 2017).</p> <p>Sex (Turkdogan, 2017: 8).</p> <p>Comfort (Konyukhov, 2020).</p> <p>Exercise (Oosthuizen, 2017).</p> <p>Relaxation (Issa, 2018).</p>	<p>Nausea (Maillet, 2018; Schaufeli &amp; Salanova, 2014: 306).</p> <p>Sleep disturbances (Irena <i>et al.</i>, 2016; Maslach &amp; Leiter, 2016).</p> <p>Cardiovascular disease (Irena <i>et al.</i>, 2016; Maillet, 2018; Schaufeli &amp; Salanova, 2014: 306).</p> <p>Gastrointestinal disease (Maillet, 2018; Maslach &amp; Leiter, 2016).</p> <p>Compromised immunity (Maillet, 2018).</p> <p>Substance abuse (Irena <i>et al.</i>, 2016; Maslach &amp; Leiter, 2016).</p> <p>Headaches (Schaufeli &amp; Salanova, 2014: 297).</p> <p>Respiratory disease (Irena <i>et al.</i>, 2016).</p>
<b>Social Being</b>	
<b>Related Concepts and Attributes</b>	<b>Potential Social Contributions</b>
<p>Attributes related to relationship with the world and other people.</p> <p>Social skills (Jordania, 2020: 247; Oosthuizen, 2017).</p> <p>Social knowledge (Gregory <i>et al.</i>, 2020; Grobler, 2017).</p> <p>Social intelligence (Monnier, 2015; Oosthuizen, 2017; Sullivan, 2018).</p> <p>Occupations (Schaufeli &amp; Salanova, 2014: 296).</p> <p>Demography (Barley-Greenfield, 2017).</p> <p>Power dynamics (Konttinen &amp; Sjunnesson, 2020).</p> <p>Social Status (Bailey <i>et al.</i>, 2018).</p> <p>Justice (Jones &amp; Harrison, 2019: 14).</p> <p>Rights and politics (Asoka, 2016).</p> <p>Income (Asoka, 2016).</p> <p>Economics, wealth (Jordania, 2020: 82, 149).</p> <p>Resource distribution (Konttinen &amp; Sjunnesson, 2020).</p> <p>Roles, work and career (Beigzadeh, Givi, Sharif, Sheykholeslami, Reisy &amp; Hassankhani, 2021).</p> <p>Culture, tradition, norms (Gafiatulina, Rachipa, Vorobyev, Kasyanov, Chapurko, Pavlenko &amp; Samygin, 2018).</p>	<p>Financial resources (Dembczyk &amp; Zaoral, 2014).</p> <p>Relationships, connections and interactions (Vivek <i>et al.</i>, 2012).</p> <p>Organisational Commitment (Schaufeli, 2013: 2).</p> <p>Work skills (Kossek &amp; Perrigino, 2016).</p> <p>Assertiveness (Astleitner, 2018).</p> <p>Loyalty (Jordania, 2020: 224).</p> <p>Goodwill (Asoka, 2016).</p> <p>Involvement (Asoka, 2016).</p> <p>Acceptance (Jordania, 2020: 40).</p> <p>Interaction (Gafiatulina <i>et al.</i>, 2018).</p> <p>Dialogue (Blignaut &amp; Aronson, 2020).</p> <p>Consultation (Asoka, 2016).</p>

<p>Communities (Kovalev, Lubsky, Volkov, Aslanov &amp; Vagina, 2018).</p> <p>Institutional collectives (Kovalev <i>et al.</i>, 2018).</p> <p>Organisational systems (Kovalev <i>et al.</i>, 2018).</p> <p>Cohesion (Asoka, 2016).</p> <p>Responsibility (Kovalev <i>et al.</i>, 2018).</p> <p>Relationships, interactions and conflict (Gafiatulina <i>et al.</i>, 2018).</p> <p>Recreation (Beigzadeh <i>et al.</i>, 2021).</p>	
<b>Social Needs</b>	<b>Symptoms of Social Depletion</b>
<p>Goal achievement (Aygün &amp; Sezgin, 2021; Konyukhov, 2020).</p> <p>Adaptiveness (Astleitner, 2018).</p> <p>Belonging (Akingbola &amp; van den Berg, 2019; Konyukhov, 2020).</p> <p>Finances (Schaufeli, 2013: 12).</p> <p>Support (Astleitner, 2018; Konyukhov, 2020).</p> <p>Care (Konyukhov, 2020).</p> <p>Security (Astleitner, 2018).</p> <p>Equality (Müller &amp; Kerényi, 2019).</p> <p>Inclusion (Bergqvist, 2019).</p> <p>Social capital (Wulandhari <i>et al.</i>, 2022).</p> <p>Status (Ward, n.d.).</p> <p>Justice (Medina, 2020).</p> <p>Social cohesion (Turkdogan, 2017: 10).</p> <p>Reconciliation (Tupper, 2012).</p> <p>Income (Forastieri, 2016).</p> <p>Infrastructure (Shailaja &amp; Neelima, 2017).</p> <p>Resources (Christensen-Salem, Zanini, Walumbwa, Parente, Peat &amp; Permann-Graham, 2021).</p> <p>Financial stability (Chand, 2019).</p>	<p>Withdrawal (Maillet, 2018).</p> <p>Callousness (Maillet, 2018).</p> <p>Indifference (Maillet, 2018).</p> <p>Lack of care for others (Maillet, 2018).</p> <p>Dehumanisation (Maillet, 2018).</p> <p>Absenteeism (Maillet, 2018).</p> <p>Tardiness (Maillet, 2018).</p> <p>Disorder (Maillet, 2018).</p>
<b>Emotional Being</b>	
<b>Related Concepts and Attributes</b>	<b>Potential Emotional Contributions</b>
<p>Attributes which relate to feelings and affect – including</p> <p>Affective (Astleitner, 2018).</p> <p>Psychological (Astleitner, 2018).</p> <p>Emotions (Astleitner, 2018).</p> <p>Commitment (Astleitner, 2018).</p>	<p>Affective commitment (Akingbola &amp; van den Berg, 2019).</p> <p>Empathy (Ward, n.d.).</p> <p>Self-awareness (Ward, n.d.).</p> <p>Optimism (Ward, n.d.).</p> <p>Self-talk (Astleitner, 2018).</p>

Emotional intelligence (Andrade, 2015; Ward, n.d.). Mood (Ward, n.d.). Balance (Whitfield & Wilby, 2021).	Gratitude (Akingbola & van den Berg, 2019; Reivich <i>et al.</i> , 2011). Ownership (Harmeling <i>et al.</i> , 2017). Confidence (Bulone, 2016). Impulse control (Ward, n.d.).
<b>Emotional Needs</b>	<b>Symptoms of Emotional Depletion</b>
Love (Konyukhov, 2020; Slote, 2015). Self-esteem (Konyukhov, 2020; Slote, 2015). Encouragement (Sollars, 2013) Fun (Ward, n.d.). Stability (Konyukhov, 2020). Confidence (Konyukhov, 2020). Care (Konyukhov, 2020). Support (Konyukhov, 2020). Usefulness (Konyukhov, 2020). Confession (Konyukhov, 2020). Joy (Astleitner, 2018; Konyukhov, 2020). Harmony (Konyukhov, 2020). Friendship (Ward, n.d.). Hope (Ward, n.d.). Pleasure (Ward, n.d.). Security (Konyukhov, 2020). Certainty (de Morais, & Rapsová, 2019). Recognition (Zembylas, 2019).	Frustration (Cordeiro & Carvalho, 2019). Fear (Green <i>et al.</i> , 2017; Maillet, 2018). Pessimism (Cordeiro & Carvalho, 2019). Helplessness (Cordeiro & Carvalho, 2019). Indifference (Cordeiro & Carvalho, 2019). Anxiety (Cordeiro & Carvalho, 2019). Disillusionment (Schaufeli & Salanova, 2014: 312). Distress (Schaufeli & Salanova, 2014: 307). Lack of confidence (Cordeiro & Carvalho, 2019). Feeling overwhelmed (Maillet, 2018). Mental health disorders (Maillet, 2018). Guilt (Maillet, 2018). Shame (Maillet, 2018). Anger (Maillet, 2018). Irritability (Maillet, 2018). Despair (Maillet, 2018). Resentment (Maillet, 2018). Aggression (Deskins, 2017). Laziness (Baeder, 2018).
<b>Intellectual Being</b>	
<b>Related Concepts and Attributes</b>	<b>Potential Intellectual Contribution</b>
Attributes related to thinking including Cognition, metacognition (Astleitner, 2018). Intelligence, logic, memory (Astleitner, 2018). Reasoning, understanding (Astleitner, 2018). Planning, decision-making (Astleitner, 2018). Application, problem-solving (Astleitner, 2018). Abstract thinking, evaluation (Astleitner, 2018). Sense-making, (Attfield <i>et al.</i> , 2018). Learning, knowledge (Astleitner, 2018). Interests, curiosity (Astleitner, 2018).	Focus (Astleitner, 2018). Interest (Astleitner, 2018). Understanding (Astleitner, 2018). Content (Astleitner, 2018). Mastery (Astleitner, 2018). Attention (Astleitner, 2018; Konyukhov, 2020). Problem-solving (Astleitner, 2018). Self-regulation (Astleitner, 2018). Awareness (Astleitner, 2018). Integration (Astleitner, 2018). Curiosity (Astleitner, 2018).

<p>Perception, perspectives (Astleitner, 2018).  Assimilation, synthesis (Astleitner, 2018).  Convergent thinking (Astleitner, 2018).  Critical thinking, analysis (Astleitner, 2018).  Divergent thinking (Astleitner, 2018).  Creativity (Astleitner, 2018; Konyukhov, 2020).  idea-generation (Astleitner, 2018).  Comprehension (Astleitner, 2018).  Integration (Astleitner, 2018).  Reflection (Kolb, 1984).</p>	<p>Innovation (Parker, Dickens &amp; Herlihy, 2019).  Knowledge-sharing (Biranvand <i>et al.</i>, 2015).  Mental models (Newstead, 2019).</p>
<b>Intellectual Needs</b>	<b>Symptoms of Intellectual Depletion</b>
<p>Autonomy (Astleitner, 2018).  Pleasure (Astleitner, 2018).  Fun (Astleitner, 2018).  Challenge (Astleitner, 2018).  Flow (Ward, n.d.).  Individuality (Astleitner, 2018).  Interest (Astleitner, 2018).  Relevance (Astleitner, 2018).  Identification (Astleitner, 2018).  Rehearsal and repetition (Astleitner, 2018).  Variety (Astleitner, 2018).  Feedback (Astleitner, 2018).  Education (Astleitner, 2018).  Knowledge (Astleitner, 2018).  Growth and development (Astleitner, 2018; Konyukhov, 2020).</p>	<p>Boredom (Schaufeli &amp; Salanova, 2014: 295).  Cynicism (Schaufeli &amp; Salanova, 2014: 293).  Poor concentration (Schaufeli &amp; Salanova, 2014: 297).  Forgetfulness (Schaufeli &amp; Salanova, 2014: 297).  Denial (Schaufeli &amp; Salanova, 2014: 311).  Inattention (Schaufeli &amp; Salanova, 2014: 314).  Intrusive thoughts (Maillet, 2018).  Rationalisation (Maillet, 2018).  Disinterest (Maillet, 2018).  Lack of attention to detail (Maillet, 2018).  Uncertainty (Maillet, 2018).  Indecision (Maillet, 2018).  Poor judgement (Maillet, 2018).  Pre-occupation (Maillet, 2018).  Confusion (Maillet, 2018).</p>
<b>Spiritual Being</b>	
<b>Related Concepts and Attributes</b>	<b>Potential Spiritual Contribution</b>
<p>Core beliefs (Astleitner, 2018).  Values (Astleitner, 2018).  Morality (Astleitner, 2018).  Attitudes (Astleitner, 2018).  Loyalty (Astleitner, 2018).  Motivation (Astleitner, 2018).  Servanthood, volunteerism (Astleitner, 2018).  Wisdom (Ward, n.d.).</p>	<p>Trust (Amundsen &amp; Martinsen, 2015).  Belief (Amundsen &amp; Martinsen, 2015).  Motivation (Amundsen &amp; Martinsen, 2015).  Conation (Kahu, 2013).  Commitment (Amundsen &amp; Martinsen, 2015).  Courage (Ward, n.d.).  Determination (Amundsen &amp; Martinsen, 2015).  Reliability (Amundsen &amp; Martinsen, 2015).</p>

<p>Desires (Konyukhov, 2020).  Devotion (Sheikh <i>et al.</i>, 2019).  Religion (Newstead, 2019).  Character (Mokolatsie, 2019).  Trust (Sheikh <i>et al.</i>, 2019).  Confidence (Sheikh <i>et al.</i>, 2019).  Perseverance (Rashidin <i>et al.</i>, 2019).  Determination (Rashidin <i>et al.</i>, 2019).  Courage (Rashidin <i>et al.</i>, 2019).  Inspiration (Rashidin <i>et al.</i>, 2019).  Attainment (Newstead, 2019).  Ethics (Mokolatsie, 2019).  Philosophies (Newstead, 2019).  Spiritual intelligence (Sheikh <i>et al.</i>, 2019).  Honesty (Newstead, 2019).  Authenticity (Jordania, 2020: 164).</p>	<p>Responsibility (Amundsen &amp; Martinsen, 2015).  Self-governance (Congreve, 2016).  Self-determination (Congreve, 2016).  Self-reliance (Amundsen &amp; Martinsen, 2015).  Character (Bailey <i>et al.</i>, 2018).  Volition (Andrade, 2015; Harmeling <i>et al.</i>, 2017).  Morality (Astleitner, 2018).  Dedication (Schaufeli, 2013: 1).  Integrity (Deskins, 2017).  Humility (Gandolfi &amp; Stone, 2016).  Interest (Amundsen &amp; Martinsen, 2015; Astleitner, 2018).  Faith (Sheikh <i>et al.</i>, 2019).</p>
<p>Spiritual Needs</p>	<p>Symptoms of Spiritual Depletion</p>
<p>Self-actualisation (Sullivan, 2018; Turkdogan, 2017: 6).  Aesthetics (Konyukhov, 2020).  Beauty (Konyukhov, 2020).  Satisfaction (Sheikh <i>et al.</i>, 2019).  Faith, hope, vision (Sheikh <i>et al.</i>, 2019).  Sustainability (Sheikh <i>et al.</i>, 2019).  Importance (Konyukhov, 2020; Sheikh <i>et al.</i>, 2019).  Participation (Sheikh <i>et al.</i>, 2019).  Understanding (Sheikh <i>et al.</i>, 2019).  Acknowledgement (Konyukhov, 2020).  Care (Konyukhov, 2020).  Support (Konyukhov, 2020).  Freedom (Astleitner, 2018).  Autonomy (Astleitner, 2018).  Self-expression (Konyukhov, 2020).  Creation (Konyukhov, 2020).  Self-knowledge (Konyukhov, 2020).  Relevance (Astleitner, 2018).  Usefulness (Konyukhov, 2020).  Meaning (Amundsen &amp; Martinsen, 2015).  Inspiration (Rashidin <i>et al.</i>, 2019).</p>	<p>Decreased fulfilment (Maillet, 2018).  Questioning meaning (Maillet, 2018).  Questioning purpose (Maillet, 2018).  Questioning values and beliefs (Maillet, 2018).  Diminished spiritual awareness (Maillet, 2018).</p>

## 8.4 Appendix 8.4 – Ethical Clearance Certificate

The Da Vinci Institute for Technology Management (Pty) Ltd  
PO Box 185, Modderfontein, 1645, South Africa  
Tel + 27 11 608 1331 Fax +27 11 608 1332  
www.davinci.ac.za



Reference: 001420  
Date: 29 June 2020

### Ethical Declaration

I, the undersigned, hereby declare that the Masters Research of the student named below has received ethical clearance from The Da Vinci Institute Ethics Committee. The student and supervisor will be expected to continue to uphold the Da Vinci Institute's Research Ethics Policy as indicated during the application.

**Proposed Title:** A Sense-making framework for stakeholder engagement to mitigate the effect of wicked problems

**Student Name:** Janet Ann du Preez

**Student number:** 9219

**Supervisor:** Pieter du Toit

**Co-Supervisor:** N/A

**Period:** Ethics approval is granted from 2019/06/29 to 2021/06/02

A handwritten signature in black ink, appearing to read "HB Klopper".

Chairperson: Research & Ethics Committee

Prof HB Klopper

Executive Dean: Research and Institutional Partnerships

Directors: B Anderson (Principal and Chief Executive Officer), M Burger  
Company Registration No. 2001/009271/07  
Registered with the Department of Higher Education and Training as a private higher education institution under the Higher Education Act, 1997.  
Registration No. 2004/HE07/003





## 8.5 Appendix 8.5 – Consent Invitation

The Da Vinci Institute for Technology Management (Pty) Ltd  
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**The Da Vinci Institute for Technology Management**

**Master of Science in the Management of Technology and Innovation Research Project:**

**A SENSE-MAKING FRAMEWORK TO IMPROVE STAKEHOLDER ENGAGEMENT IN THE  
CONTEXT OF WICKED PROBLEMS**

**Master Student:** Janet du Preez (+27 76 626 6047)  
**Supervisor:** Dr Pieter du Toit (+27 82 821 3383)  
**Research Office:** Rinaka Moodliar (+27 11 579 4427)

### **CONSENT INVITATION**

Dear [Name and Surname] you are cordially invited to partake in the research project conducted by Janet du Preez (6212010167083) from the Da Vinci Institute for Technology Management.

This study will contribute to the researcher's completion of her Master in Management of Technology and Innovation.

However, before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully and ask the researcher if there is anything that is not clear or where you need more clarity.

Directors: B Anderson (Principal and Chief Executive Officer), M Burger  
Company Registration No. 2001/009271/07  
Registered with the Department of Higher Education and Training as a private higher education institution under the Higher Education Act, 1997.  
Registration No. 2004/HE07/003

RESEARCH • DESIGN • EDUCATION



## 1. The Purpose of the Research Study

The problem which the researcher intends to explore in this research is the apparent failure of stakeholder engagement to deal effectively with wicked problems

### **Research Question**

"How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems?"

### **Sub-questions**

- How are wicked problems, engagement and stakeholder engagement currently framed?
- How can these concepts be effectively integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?
- How can this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?

## 2. Role as Participant in the Research Study

Your participation in this study is very important because of your experience and expert skills in the areas being researched.

The research procedures, risks and incentives associated with the study, and duration of the study are as follows:

- **Research Procedures:** The research study consists of interviews, explorations and focus group discussions that will be administered to individual participants or groups of participants via electronic platform (Zoom, Skype or Microsoft Teams). You will be asked to provide answers to a series of questions related to objectives of the research stated above.
- **Risks:** The researcher does not perceive more than minimal risks from your involvement in this study (*that is, no risks beyond the risks associated with everyday life*).



- **Incentives:** There are no direct incentives to you for participating in this research study other than the expert contribution and venture in a topic you may find interesting.
- **Duration:** Your involvement will be for the duration of 3 months, during which the interviews, explorations and focus groups will be conducted.

### **3. Voluntary Participation and Withdrawal**

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form.

Should you choose to participate, you can withdraw at any time without consequences of any kind. After you have signed the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher.

If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

### **4. Confidentiality and Security**

Your responses to this study will be anonymous. Every effort will be made by the researcher to secure and preserve your confidentiality including the following:

- Assigning code names/numbers for participants that will be used on all research notes and documents, where applicable;
- Keeping hardcopy notes, interview transcriptions, and any other identifying participant information in a locked file cabinet in the personal possession of the researcher;



- Keeping softcopy notes, interview transcriptions, and any other identifying participant information on the researcher's personal work computer. The researcher makes use of a cloud back-up service who are bound by their confidentiality agreement.
- In their responses to this invitation, all participants will be asked to agree to a confidentiality clause regarding information disclosed in focus groups.

Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

The relevant data will be destroyed, should you choose to withdraw from the research study before your responses have been submitted and anonymously recorded.

#### **5. Ethical Status of the Research Study**

The study has received ethical approval from the Ethics Committee from the Da Vinci Institute for Technology Management.

#### **6. Giving of Consent**

After completion and successful submission, you will be provided a complete copy of the thesis document.

Please complete the attached consent response note duly signed to indicate your consent with the participation as described in the aforementioned.

Kind regards

.....  
**SIGNATURE OF RESEARCHER**

.....  
**DATE**

## 8.6 Appendix 8.6 – Consent Response

### The Da Vinci Institute for Technology Management

#### Master of Science in the Management of Technology and Innovation Research Project:

A SENSE-MAKING FRAMEWORK TO IMPROVE STAKEHOLDER ENGAGEMENT IN THE CONTEXT OF WICKED PROBLEMS

**Master Student:** Janet du Preez (+27 76 626 6047)  
**Supervisor:** Dr Pieter du Toit (+27 82 821 3383)  
**Research Office:** Rinaka Moodliar (+27 11 579 4427)

#### CONSENT RESPONSE

I, ..... (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I agree to participate in the above mentioned research project.

I understand that my participation is voluntary and that I am at liberty to withdraw from the project at any time, should I so desire.

I understand that if I am participating in a focus group that all information provided by other participants is deemed to be confidential and I may not disclose it to any outside party.

**SIGNATURE OF PARTICIPANT:**

**DATE:**

.....

.....

## 8.7 Appendix 8.7 – Actual Individual Interview Questions

The actual, largely open interview questions asked of each participant are listed below.

### Interview Questions P1

1. We are going to kick straight off if it's okay with you with a question of your understanding of the concept of a wicked problem. You can give me an idea of what you think.
2. What do you think wicked problems are?
3. I get the sense that you say they (wicked problems) actually serve a purpose?
4. You said, but even though they can't be solved it's important that we try. Can you expand
5. on that for me?
6. You feel that wicked problems create imperative?
7. Do you have a perspective on the systemic nature of wicked problems?
8. Are you suggesting that wicked problems are systems designed to perpetuate power differentials and resource differentials?
9. What is your understanding, in the context of wicked problems, what's your understanding of a stakeholder or stakeholders?
10. Should the disenfranchised be considered to be stakeholders? Should they be stakeholders?
11. So if that's part of their plan then it can work?
12. How does motive relate to wicked problems and to the engagement of stakeholders?
13. What do you think stakeholder engagement is or should be?
14. Is it possible to be helpful without being powerful?
15. What about dependence? Talk to me about the dynamic of power independence, even without a reciprocal expectation and how we navigate that.
16. If stakeholders could be effectively engaged, what would that look like?
17. Are the power dynamics in climate change as significant as they are in poverty?
18. Are wicked problems always about resource differentials?
19. If we don't consider power to be a resource?
20. Are wicked problems always about differentials in tangible resources?
21. Are there always tangible resources differentials in wicked problems? I'm curious, I'm testing this idea because I haven't thought about this before.
22. If race is an intangible resource on its own it means nothing, and it's conversion that it gets its value.
23. Can you expand on that? How does that happen?
24. If we could effectively engage stakeholders what would they do
25. If we could effectively get stakeholders together, what would we do with them if we got them together?
26. Or what would they collectively do if they got together?

## Interview Questions P2

1. Can you give me your understanding of what wicked problems are?
2. Did I hear you properly that you said complexity is about the time dimension?
3. You've spoken about complexity, complicated, dynamic. Any other features that you think are characteristic of wicked problems?
4. I'd like to explore that a little bit more. So the human element brings emotion and some level of logic. Ja, maybe just expand on that for me around this human perspective?
5. So they act consistent with who they are but who they are may be changing over time?
6. Why do you think wicked problems matter?
7. Please explore that.
8. In the data and tech it sounds like you're saying the jury is still out whether or not it's actually a problem, it could potentially be a problem but it may not be. Am I understanding that right?
9. Obviously we're looking at stakeholders in the context of wicked problems, but maybe you can kick off by again – start by telling me what you think a stakeholder is?
10. What is the role, if anything, of stakeholder engagement in the context of wicked problems?
11. I realised after I'd asked you that question that I didn't start by saying so what is stakeholder engagement. So maybe we should go back there and then we'll try and pull pieces together.
12. I need to just explore what you meant when you said it doesn't just exist. So you said it's an active process, it doesn't just exist. I'm curious about that.
13. I want to probe that word exchange a little more.
14. And if I can probe the meaning of the word exchange as an exchange, what is being exchanged? You mentioned information, is there anything else?
15. You spoke about emotion earlier, does emotion come into that exchange at all?
16. Are there any drawbacks to stakeholder engagement in the context of wicked problems?
17. Can you talk to me a little bit more about expectations?
18. I just want to clarify and make sure that I'm understanding what I heard you saying there was that it's important to actually frame the discussion.
19. So what I'm also hearing you saying there is that there isn't necessarily just one issue, there are different issues within the issue that need to be – and identifying those issues can be important. Am I hearing right?
20. We've talked a lot about climate change, which is an interesting wicked problem, and let's maybe use that as an example, if we could. Who's responsible for stakeholder engagement in that context?
21. So if we just focus in on resources for a moment what sort of resources do people need to have to take ownership?



22. You said just now if we're looking at – so who should take responsibility, you said the most impactful actors and I just want to clarify what you mean by impact. There were two possibilities that arose in my mind so let me ask you first and then if I need to clarify further I will. Impactful in what way?
23. So maybe let me also just probe that a little bit further because – and I may be reading something into this so my bias, maybe I'm declaring it. Before you spoke about impact you were using the example of oil companies and climate change. Is it possible that impact also might be related to how much people are actually causing the problem, or their role in the problem? Is that possible?
24. What I'm hearing you saying also is that even causing the problem doesn't mean that you're only a cause of the problem, you might be partly a cause of – you may also be partly solving the problem?
25. In the absence of somebody who has authority or responsibility to engage stakeholders how does it happen? Can it happen without somebody actually having that responsibility, and if so, how?
26. And what makes them do that?
27. Okay, can you explain that for me?
28. Okay, so you're saying that the hurt is related to the purpose?
29. It can be abstract. Can you expand on that?
30. And that can motivate action, or motivate involvement, engagement?
31. Generally speaking your perception of how effective stakeholder engagement is, in the context of these wicked problems, what would you say?
32. How effective do you think stakeholder engagement is?
33. Pathways to influence? Can you just explain to me what you mean by that interesting statement? What are pathways to influence?
34. How can stakeholder engagement be made more effective? How can it be improved?
35. Thinking about your own personal background, and your own areas of expertise, how does that expertise potentially impact on stakeholder engagement?
36. So obviously we can look at stakeholder engagement from a strategy point of view, from a risk management point of view, from the perspective of technology or leadership. There are a whole lot of lenses through which we can look at stakeholder engagement. Ja, I think just from your own knowledge base, your own expertise, what do you potentially bring to the table which can improve stakeholder engagement?
37. If you open the process?
38. You spoke just now about how the engagement of stakeholders in the climate change environment has morphed over time. So can you speak a little bit more about how engagement progresses over time?
39. And you say that they are talking and listening more effectively to each other?
40. What has prompted that? How has that come about?
41. So evidence of the reality?

### Interview Questions P3

1. How would you explain engagement?
2. How do you know that people are engaged?
3. What is the relationship between well-being and engagement?
4. What is the relationship between well-being and engagement?
5. How do you know that people are not engaged?
6. So you used the word disengaged?
7. What is the experience of people who are truly engaged?
8. Could you explain to me what you mean by that?
9. And what do you think their personal experience is? What's happening inside them?
10. So if they're not working for money what do they work for? You've started answering that I think.
11. So what is a stakeholder?
12. What does a stakeholder system look like?
13. I can't be any more explicit. So you just tell me whatever comes to mind for you.
14. I want to follow up with another question. What are the characteristics of that system?
15. How do leaders engage stakeholders?
16. You've referred to interests and priorities, who's interests and priorities are you referring to?
17. You've referred to interests and priorities, who's interests and priorities?
18. You spoke about their availability. How does availability influence engagement?
19. What is a wicked problem?
20. What is the role of stakeholder engagement in the context of wicked problems?
21. Would you give me an ...[speaking simultaneously] example of a wicked problem?
22. Wicked problems involve contradiction, complexity and change. Can you tell me more about contradiction?
23. How can you improve stakeholder engagement in the context of wicked problems?
24. How can we improve stakeholder engagement in the context of wicked problems?
25. You spoke earlier about the governance model. In the context of wicked systemic problems who would be responsible for defining that governance model?
26. Management?
27. Which management?

### Interview Questions – P4

1. I'm going to kick straight into the question of wicked problems and ask you just to give me a sense, from your perspective, of what they are?
2. You talked about it being able to be influenced but not solved. Could you just tell me a little bit more about that?
3. You've spoken about it being emergent, does it ever reach a steady state?
4. Is there hope in the midst of wicked problems? If so where does that come from?

5. So you spoke about things not being in – these issues not being in categories, entangled, intractable, and now you've spoken quite a lot about boundaries spanning. Any other thoughts around wicked problems and boundaries?
6. You used a very interesting word just now, the word chosen boundaries. Can you talk to me a little bit more about choice, in relation to wicked problems? What did you call them, complex, intractable problems?
7. Can you just expand on the word emergence for me, as a quality of these systems that you've spoken about?
8. You also spoke about its transience, that at no time does it become fixed.
9. Everything about us is change. Please expand on that.
10. Your statement just now, everything about us is change. Can you explain this to me, in relation to what you've just said?
11. The characteristics of the systems, these wicked systems that you've been talking about, just any specific characteristics that stand out for you?
12. You've talked about it being different in those different environments, what might explain that?
13. I would like to just probe the idea of variables a little bit. What types of variable are we talking about?
14. So you've talked about decision making. Typically how do people make decisions?
15. Anything you want to say about decision making.
16. But now it's like it's almost been highlighted to us and we're making decisions in the lack of sufficient evidence or sufficient information is very anxiety provoking.
17. At the risk of sounding stupid, why?
18. What are stakeholders in this context?
19. You said that they have agency or the potential for agency. What do you mean by agency?
20. You talked about objectivity, please just probe that a little bit more for me.
21. If we look at stakeholder engagement, so maybe let's just explore briefly an understanding of what stakeholder engagement is in this context, or could be?
22. You talked about bias in terms of how we choose stakeholders. What factors come into play that you are think are important or could be important.
23. You spoke about how we can have intentional bias, but you also spoke about intention as almost a driving force in this whole process. Can you just speak a little bit more to that?
24. You've inferred that we all have – we might have different intents, so how does that work in these stakeholder engagement systems?
25. Who is responsible for stakeholder engagement, in the context of wicked problems?
26. *Context - I don't think that's the right question, Janet.* Tell me what you think.
27. *Context - What needs to happen so that there's almost a groundswell of engagement?* So I invite you to answer that question.
28. *Context - You assume that I know, I don't know, it's an interesting question.* I assume

that you have interesting thoughts.

29. You touched on – you said affordances for action. Can you talk to me a little bit about action in the context of stakeholder engagement and wicked problems?
30. I want to make a connection between what you've said about action and the necessity for action with something you said far back, which was around experimentation, I think you used that word. I know it's a word you use so maybe I'm not remembering properly, but that concept we talked about.
31. You've spoken about the potential positive impact of these experiments, or the possibility it doesn't change something. I have to obviously ask the question, what about negative potential impacts?
32. What do you do with that feedback?

### **Interview Questions P5**

1. If you can give me your understanding of wicked problems. What do you think they are?
2. I'm very interested in what you said around the fact that in response to this you need to change a lot of different elements. Maybe just expand a little bit on that for me, in whatever direction you want to take that?
3. What makes that challenging?
4. I just want to spend a little bit more time on this question of what might prevent stakeholders from doing what you need them to do. You've identified a few things, is there anything else that prevents stakeholders from effectively engaging?
5. What makes a project a high priority for you when you have to make these decisions?
6. I'm going to go a little bit back to the beginning of the conversation, when we talk about the qualities of wicked problems. So you gave some really great examples. There were a couple of words that you particularly talked about, you talked about them being complex, you talked a lot about the change that happens in the context of wicked problems. Any other particular qualities that these issues have?
7. What are the implications of the fact that it comes from the top? You spoke about hierarchy, anything else?
8. What are the implications of that? Why is that a valuable concept?
9. You made a comment just now about whether you believe it or not. Is that belief concept important?
10. You've spoken about different perspectives and then different beliefs. What is the implication of differing perspectives and different beliefs in terms of the process, other than what you've just spoken about, which is that people don't show up and do what they're supposed to do? Just in terms of how the process works out, these differences?
11. If you can just give me a sense of what you think stakeholders are and then we'll move on from there.
12. Can you talk to me a little bit more about stakeholder needs?

13. So working with the power structures?
14. You seem to be suggesting that different stakeholders play different roles, show up differently. If you can just talk to me more about that? It's a very vague question, it's not one I thought to ask but it's just an interesting angle.
15. How do you navigate all of this? How do you make it work?
16. How did you deal with that?
17. You've alluded a lot to the challenges of agreement and decision making. How does one improve decision making and reach agreement? You've spoken a lot about it so you don't have to repeat what you've said, but if there's anything to add to that. Let's start with decision making first.
18. If we talk about this whole hierarchy power stuff, do you think that stakeholder engagement is improved or compromised by these power structures? Do they add value or do they make things more difficult, and justify your answer for me?
19. So you're saying, just to paraphrase that, that emotions and moods can impact decision making?
20. How, potentially, can trust be improved, at whatever level? How does trust build?
21. I would love to hear about some success stories, instances where it's worked well. And maybe, what made it work well.

### **Interview Questions P6**

1. How would you explain stakeholder engagement?
2. Maybe just expand a little on what you mean by vested interest?
3. And what would potentially affect your decision there?
4. You spoke about segmenting your stakeholder groups, what would be the basis of that segmentation? Or just tell me more about segmentation, that's a better question.
5. I just want to try and push that a little bit further. What are the differences between those groups?
6. And why would the approach to the different groups be different?
7. What does the stakeholder system look like? What are the characteristics maybe of a stakeholder system?
8. What is a wicked problem?
9. So you spoke about enormous complexity and chaos, and crisis. I've heard a number of those words. You said, just bearing that in mind, it doesn't fit the norm. Just explain to me what you meant by that?
10. You talked about the fact that decisions have to be made very quickly. Why would that be, what causes that time pressure?
11. What happens if you don't make the decisions quickly enough, or you make the wrong decision in a hurry?
12. How important are wicked problems and why?
13. So I want to pick up on what you said about very high risk. What does that risk look like?

14. What effects do wicked problems have?
15. You used the words people develop through the experience. So in what ways – I'm going to probe that a bit more deeply, in what ways might they develop through the experience?
16. You also spoke about conflict and differing opinions as being a risk. Can you just expand more on conflict and its place in wicked problems?
17. You spoke about opposing views. Can you explain to me, or give me a perspective on maybe what do you mean by views, and what's at the root of that opposition?
18. What would enable that compromise?
19. Can you tell me a little bit more about the nature of the information?
20. What types of information are relevant?
21. You spoke about it needing to be comprehensive and exact. In the context of a wicked problem how feasible is that?
22. What are relevant responses to a wicked problem?
23. You spoke about a plan of action, in the context of a wicked problem how does that kind of action get created?
24. If we move on to now looking specifically at stakeholder engagement in the context of wicked problems, how do stakeholders become effectively engaged in the context of a wicked problem?
25. So a wicked problem that is outside of the organisation, how do stakeholders become effectively engaged?
26. What would that motivation be driven by?
27. Give me a couple of examples of things that might cause desperation?
28. What inhibits effective engagement, in the context of wicked problems?
29. What can inhibit effective engagement in the context of a wicked problem?
30. Is there any other quality that would make somebody a right person? Or anything else that helps to identify right people?
31. Are there any people that should particularly be invited?
32. So you're saying if they buy in that can help the process, how does it do that?
33. Other than decision making what other contribution do stakeholders make?
34. Curious to hear more about the social economy and the assets in the community.
35. I'd like to hear more about what you refer to as the social economy and the assets in the community.
36. When you're talking community you are talking about what specifically?
37. So you've given some examples of tangible assets, can you expand further on or are there other forms of asset?
38. Any other ability?
39. What are ideal outcomes for stakeholder engagement in a wicked context?
40. How do those trade-offs get – how are they navigated?
41. So you're saying there's a link between risks and some principles?
42. How can the challenges of stakeholder engagement be navigated to improve

- outcomes? Maybe we should start with what are the challenges?
43. Are there processes or activities, or procedures that could improve stakeholder engagement in the context of wicked problems that you haven't already mentioned?
  44. Who enables effective stakeholder engagement?
  45. How can stakeholder engagement be positively influenced over time?

### **Interview Questions P7**

1. The context of the study is wicked problems, can I ask you to just begin by giving me a sense of what you understand wicked problems to be?
2. Are you talking about the Cynefin framework
3. Spend a few moments just speaking to me a little bit more about those complex systems, or those changing natural systems outside of human influence?
4. I'm curious about this idea of the condition. Can you tell me a little bit more about that?
5. I want to try and link some thoughts if I may that you've shared. You've spoken about the dynamic complex nature of these issues and you talked also about how differences, and value differences in particular, show up as part of those. Would you see those same qualities as being relevant to the condition, that concept of condition?
6. I'd love to hear more about how you went about actually doing that?
7. Can you tell me just where the - step back to the notion of stakeholder engagement, and if you could just give me a sense first of all of what does that concept mean for you?
8. I just want to test this word with you, when you were talking about those sub-systems, or the sub-recursive systems, the word fractal...
9. So you're saying the goals may change?
10. You used the little phrase you said you need to get ready to re-discuss. How would you know that you need to do that?
11. So what would be the signal or the – what would alert you to the fact that it's time to re-discuss?
12. You've alluded here to the idea of the fact that you have different people with different disciplinary perspectives. How does one navigate?
13. How do you navigate those different disciplinary perspectives?
14. So we've set a direction, we've kind of come to a good enough agreement, we've got a picture of the condition. Can you just talk to me a little bit about when we get into the sort of action that you were talking about as well? (Lost connectivity before this, so summarised what I heard)
15. You made a statement just now and you said it may sound arrogant, but I think it's an awesome statement to be able to make, that you feel as though you have managed to come to a place where you do get it and it is working. Maybe just a couple of minutes just to tell me, how do you think you arrived at that place?

## Interview Questions P8

1. I'm going to kick off by asking you what your understanding is of the concept of a wicked problem?
2. What do you think are the sort of key characteristics of wicked problems?
3. Tell me about the trickster figure. That's a term I've heard before and I'd love to hear a bit more.
4. What are the origins of the concept?
5. Now I'm going to go back because you said that you see wicked problems almost as a trickster. Can you explore that a little bit?
6. The defiance, what does that look like?
7. So if I'm understanding you correctly what you're saying is that a wicked problem in a sense exhibits this quality of defiance, the challenges, the norm, the status quo. Am I understanding that right?
8. Okay, this phrase that you just used, understanding the system that it operates in. So wicked problem is contained within a system, if I'm hearing you right, can you talk to me a little bit more about that? What does that system look like, what's its nature, anything you want to say.
9. So the story behind the rumour was the phrase that you used, or the story behind the wicked problem I think you also alluded to. So can you talk to me a bit more about the story?
10. And I may be pushing this just a little far, but can you give me just a thought around the connection between story and reality?
11. You were talking about there are futurists who believe that we can construct the future through imagination and story. Won't you say that again for me?
12. So, we talked about wicked problems, why do they matter?
13. So if we change the narrative what could potentially then happen? What are you saying?
14. I'm going to move to talking about stakeholder engagement. And obviously it's still in the context of wicked problems. If you could begin by giving me an idea of your understanding of a stakeholder, what is a stakeholder?
15. You've spoken about organisations, individuals, are we talking about people primarily?
16. If we move beyond what are stakeholders to what is stakeholder engagement, how would you explain that?
17. I am going to give you free reign to play with that concept and tell me what you think, from your knowledge base.
18. What potentially might that look like? How might they use that agency within that wicked problem context?
19. I'm just going to connect concepts right now that you've mentioned. So you talked about the spiral. You talked about the trickster. We talked about wicked problems and we've talked about a walking song. What might that look like?



20. So presumably it would be possible for more than one stakeholder group to have its own song. How could that metaphor help in a wicked problem context, or a stakeholder engagement context?
21. You talked about mutual benefit, you talked about agency, you talked now about one group not being dominant over another. Can you just talk to me about that whole scenario – I don't want to use the word scenario, talk to me about just how all that fits, those ideas, those thoughts?
22. Why would stakeholders engage in the context of wicked problems?
23. Please can you talk to me about motivation?
24. What would be the experience of stakeholders if they were effectively engaged, in the context of wicked problems?
25. How does that happen? How does one facilitate that?
26. Did you say emic and etic?
27. Okay, and which is which?
28. What would be the goal of stakeholder engagement, the objective? What are we trying to do?
29. How can we make those kind of outcomes more likely? How do we potentially improve stakeholder engagement?
30. Do you have any further thoughts around how to create that liminal space?
31. That story you've just told me. I asked you the question, how do you create the liminal space. The story that you told me for me illustrated a bunch of things that happened in that space. You were put into a different context, you were asked to take on a different role, you were given different input, you had different interactions, you heard different stories, you played with different ways of connecting the pieces, and different ways of integrating and assimilating – (Yes).
32. Is that a reasonable interpretation?

### **Interview Questions P9**

1. If I can ask you to maybe just give me your idea of what a wicked problem is before we start, or go any further.
2. You distinguished between complex and complicated. Would you elaborate on those for me?
3. How important are wicked problems? And maybe why would you answer in that way?
4. How would life be better if there weren't wicked problems?
5. Less painful?
6. I'm curious about the word pain. How would you define pain? What does pain look like, feel like?
7. In contrast your perspective is that in the world, certainly in which you operate, that probably wouldn't work. That's what I'm hearing you saying. Maybe tell me a little bit more about why you say that?
8. Talk to me a little bit about the systemic nature of wicked problems.

9. I'm just going to check this with you, that systemic may have a time factor attached to it, which is interesting.
10. I'm also interested by the idea of the structural factors that somehow relate in this system.
11. I'm going to connect two things that you said and just invite another comment. So you talked about something being bigger than you and then this idea of structural factors. What I'm really interested in is just expanding a little bit on this idea of a structural factor, what would that look like?
12. What role do these structural factors play in wicked problems?
13. The implication is almost that they are a reflection of you? You're allowed to disagree with me.
14. When we talk about a wicked problem who are relevant stakeholders? How do we define stakeholders?
15. If you could just tell me a little bit more about how you see power differentials in relation to wicked problems.
16. You mentioned resources. Could you just expand on what resources look like, what are resources? What do you mean by that?
17. Okay, the relationship between resources and stakeholders. Can you comment on that?
18. So you talked about connect things that haven't been connected before. What are those things that are being connected in this process?
19. Any other elements that potentially get connected in this? So you've talked about institutions potentially, or different elements of system.
20. Anything else to say around what inhibits effective engagement, in this context obviously?
21. Is a win-lose scenario inevitable?
22. If we wanted to improve that what would you need to do if you were that facilitator you were talking about?
23. We've got the stakeholders into the common space that you've sort of suggested and now we've got a problem out there and we've got the stakeholders here, what would be the sort of way forward? What do we hope to do then?
24. What would effective engagement of stakeholders look like in the context of wicked problems?
25. So you're suggesting that the most vulnerable should be prioritised?
26. The word vulnerable, what do you mean by that?
27. What are the implications of that?
28. Are there any particular processes, activities or procedures that could improve stakeholder engagement, other than what you have already mentioned?
29. You talked about people being connected and brought into a common vision, and then a little bit later you talked about the need for tangible improvement. So what is the connection – so once you've connected people, brought them into common vision,

how do you get to tangible improvement?

30. So if people are owning a piece of the problem, is there then a need for integration, and how would that work?

### Interview Questions P10

1. I am going to kick the first question off, or kick this interview off with the first question which is, how would you explain stakeholder engagement?
2. So you've already addressed what is a stakeholder, anything you want to add to what you've said about stakeholders, what they look like, who they are?
3. If I ask you the question, what does a stakeholder system look like how would you respond to that?
4. How do you know that stakeholders are engaged?
5. Okay, tell me a little bit more about that, that's a really interesting perspective.
6. So not happy doesn't equal not engaged?
7. I'm particularly interested in what you said about how you were reading that, and anything else you want to add around how you read those messages.
8. Engagements? Is that different from engagement?
9. How do you know that stakeholders are not engaged?
10. Do you have any suspicions of what may be driving that?
11. And anything that you feel may be beneath that fear? So it's kind of like another why - why are they afraid?
12. So people who are truly engaged, stakeholders who are truly engaged, what do you think their experience is?
13. So let's explore that negative experience a little bit, because you've highlighted that. What are they experiencing then?
14. And then negative reaction looks like?
15. You spoke about those who are positively or negatively engaged and that they feel – they are either triggered or you spoke about maybe they've got some sense of anticipation. So now, what about the experience of those who are not engaged at all?
16. How do leaders actually engage stakeholders? Well let's say how do leaders engage stakeholders effectively?
17. Tell me a little bit more about that art?
18. So let's move on to the next one, it's again an opposite question. How do leaders fail to engage stakeholders?
19. Talk to me about the work.
20. Maybe you could just tell me what the key tenets of that plan are?
21. Why do you think that people resist?
22. What is a wicked problem?
23. I'm curious to hear a little bit more about that. So you've spoken about the solution is part of the wicked problem, finding the problem is part of the solution, the solution is part of the problem. Tell me more.

24. Anything to add to what a wicked problem is?
25. How important are these problems?
26. In what way critical?
27. You say generate more pieces of the problem?
28. So again solutions becoming part of the problem and exacerbating the issue?
29. I think in part you've answered this question again, but I'm just going to probe a little bit further. So I asked how important are wicked problems and the sort of second part of that question is why. Why are they important? You've said that they are.
30. Can you talk to me about the systemic nature of wicked problems?
31. I'm very curious about that, let's explore that.
32. You might have touched on this already, but how's a wicked problem different from other problems?
33. What are relevant responses to a wicked problem?
34. What, if anything, is the role of stakeholder engagement in the context of wicked problems?
35. Who would relevant stakeholders be in the context of a wicked problem? Are they related and if so, how?
36. How are they generally related?
37. How do they become effectively engaged in the context of a wicked problem? So let me ask the question exactly as it's stated. How do stakeholders become effectively engaged in the context of a wicked problem?
38. You said they were triggered by somebody getting sick. Before that what was their response?
39. So there was some observations, some taking in of information, somebody then got sick, then they engaged. What did that look like?
40. What inhibits effective engagement in the context of wicked problems?
41. Just expand on that for me?
42. I'm going to push us a little bit on this one. Anything else that inhibits effective engagement?
43. Are there any drawbacks to stakeholder engagement in the context of wicked problems?
44. And any benefits that we haven't talked about?
45. What would be the experience of stakeholders if they were effectively engaged in the context of wicked problems?
46. Is there anything in this specific context of wicked problems that would challenge that learning, the questioning, the relationship building?
47. So you're saying it doesn't look the same along the timeline?
48. Would that be true in all cases do you think?
49. Do you think that there are ways of fostering that maturity, growth, some of the words that you've used there?
50. Do you think from your experience that there are ways to fast-track it without skipping

those steps?

51. Which people would be better – or would make fast-tracking easier?
52. What impact could tech have on the effectiveness of stakeholder engagement?
53. What you're saying is engagement is visible, or what I'm hearing you saying.
54. Aside from Zoom, Teams, whatever method we are using to connect with one another are there other ways in which technology can support the effectiveness of stakeholder engagement, in the context of wicked problems? Always in the context of wicked problems.
55. So what are stakeholders engaged to do in this context?
56. I'm going to probe a little bit more deeply around you said that they engage to understand, and you've indicated that that's a mutual understanding. Understand what?
57. Of the problem?
58. Anything else?
59. What are the ideal outcomes for stakeholder engagement in a wicked problem scenario?
60. Sharing of?
61. How can the challenges of stakeholder engagement be navigated to improve outcomes?
62. What do you think fuels interest?
63. And if we think about that example why is that his interest?
64. Linked to his responsibility?
65. How can the challenge of the stakeholder engagement be navigated to improve outcomes? Anything to add to that one?
66. Are there any processes or activities, or procedures, we can go through them individually if you like, that could improve stakeholder engagement?
67. And would the content differ from group to group, or only the method of delivery?
68. So based on their roles?
69. We were talking processes, activities or procedures, anything to add to that?
70. In the context of a wicked problem, you've used Covid as an example, who enables effective stakeholder engagement?
71. This may sound a little bit vague, but what I'm hearing you refer to is almost a sort of a concentric, rippling, cascading process. Is there anything else you could say about that?
72. How can stakeholder engagement be positively influenced over time, again in the context of a wicked problem?
73. If you were responsible for stakeholder engagement, in the context of a wicked problem of any size, shape, form, whatever, what process would you follow? Over time what would the picture look like?
74. What would you be expecting in response?
75. Marketing a solution? Okay, please talk to me about that.

76. What might that marketing look like?
77. The level that they're at, hold on, what's that mean?
78. So the role?
79. How can the concept of stakeholder engagement be usefully framed to improve stakeholder engagement in the context of wicked problems? Anything that you want to add.

## 8.8 Appendix 8.8 - Coding Sample

Error! Reference source not found. **Table 38** provides examples of coding for data fragments related to one of the codes in the sub-theme of Action Process.

**Table 38 Coding Sample Data Fragments Related to the Action Process Sub-theme**

Participant	Data Fragment	Code	Meta-theme	Theme	Sub-theme
P1	"out of the little bit that they have feed children, and they've been doing it for 20 years and they don't ask".	SE Process Action Doing	Stakeholder Engagement	Stakeholder Engagement Process	Action Process
P2	"If they don't even know what happened with doing A it's tough for them to know whether or not they need to even adjust what they are doing".				
P4	"So if you don't have enough information you're doing the best that you can with what you currently know, you need to reserve the right to change your mind, but we don't think like that".				
P4	"what they're doing is they're creating environments by flexing constraints where certain options become possible".				
P4	"government needs to fix this, there's nothing we can do. And those same people would be out there every Saturday fixing potholes, but this dirty dam can't do anything".				
P4	"I think the one thing that you can be sure of in a complex system when you start acting in it is that there will be unintended consequences, because things are connected in ways that you can't understand".				
P7	"And I think if you're looking at those critical elements in the adaptive processes and you're finding out who's doing what".				
P7	"So then we started with this developmental stuff kind of interleaved with that because you couldn't get away with the funders, and I'm not doing their hard stuff, their hard criteria".				
P7	"But what we started doing was getting participatory reflective things, and we had to make them fund somehow – I don't know how we managed, but from a position where we it used to be a pain and say, well geez man, we				

	spent half our life just looking at our belly buttons and talking to each other about what we see there. But it wasn't as bad as that, we had to make the things easy".				
P7	"But if you want to say the day and a half a month that you spend maybe doing the average participant was fun and helped everyone to feel that they were getting – other people were understanding what they did and appreciating it".				
P7	"So that afterwards people were saying well, hang on, we haven't thought about this yet, we haven't had a reflection. When are we doing the reflection?".				



## 8.9 Appendix 8.9 – Definitions of Concepts in the Sense-making Framework

**Error! Reference source not found.** Table 39 summarises the concept definitions for the sense-making framework, based on the findings of the research.

**Table 39 Definitions of Concepts in the Sense-making Framework.**

<b>Meta-theme 1: Wicked Ecologies</b>
<i>Wicked Ecologies</i> are systems of stakeholders and the wicked problems with which they are interconnected.
<b>Theme 1.1: Wicked Problems</b>
<i>Wicked Problems</i> are highly impactful, intimidating, illusive and intractable challenges characterised by complexity, change and conflict, which present an imperative for stakeholders to influence.
<b>Sub-theme 1.1.1: Problem Complexity</b>
<i>Problem Complexity</i> describes the entanglement of wicked problems within a tightly knotted, clustered mass of difficulty, human and natural agents and their interactions; a system of systems which can never be accurately conceptualised or analysed
<b>Sub-theme 1.1.2: Problem Change</b>
<i>Problem Change</i> describes the emergent, co-evolutionary, dynamic, uncertain and unstable nature of wicked problems.
<b>Sub-theme 1.1.3: Problem Conflict</b>
<i>Problem Conflict</i> describes the propensity of wicked problems to evince plural perspectives, cause tension, exacerbate differences, confuse people, deepen power differentials, and polarise decision-makers.
<b>Sub-theme 1.1.4: Illusive Problem</b>
Wicked problems are <i>Illusive Problems</i> with the propensity to go undetected, to be misunderstood or to be underestimated.
<b>Sub-theme 1.1.5: Intractable Problem</b>
Wicked problems are <i>Intractable Problems</i> characterised by insolvability and longevity.
<b>Sub-theme 1.1.6: Intimidating Problem</b>
Wicked problems are <i>Intimidating Problems</i> with the propensity to frighten, overwhelm, paralyse and discourage stakeholders or leave them feeling inadequate or incapable.
<b>Sub-theme 1.1.7: Impactful Problem</b>
Wicked problems are <i>Impactful Problems</i> with the propensity to affect the ecologies with which they are connected.
<b>Sub-theme 1.1.8: Imperative Problem</b>
Wicked problems are <i>Imperative Problems</i> which create importance and urgency for action.
<b>Sub-theme 1.1.9: Influenceable Problem</b>
Wicked problems are <i>Influenceable Problems</i> with the potential to be positively impacted such that they become less destructive.
<b>Theme 1.2: Stakeholders</b>
<i>Stakeholders</i> are individual or collective agents within or related to the problem ecology. They may be animate or inanimate and are involved in reciprocal influence with the system through interactions.

<i>Sub-theme 1.2.1: Stakeholder Complexity</i>
<i>Stakeholder Complexity</i> explains the whole, interconnected multi-dimensional nature of stakeholders – their social, physical, intellectual, spiritual, and emotional nature. The researcher uses the acronym SPISE to refer to these five aspects of personhood.
<i>Sub-theme 1.2.2: Stakeholder Change</i>
<i>Stakeholder Change</i> explains the constant emergence of stakeholders as they assimilate their experiences and on-going interactions with their environment.
<i>Sub-theme 1.2.3: Stakeholder Conflict</i>
<i>Stakeholder Conflict</i> explains that stakeholders differ and that they have to operate in a world of contradiction, incompatibility and difference.
<i>Sub-theme 1.2.4: Stakeholder Identity</i>
<i>Stakeholder Identity</i> explains who stakeholders are in the context of wicked problems. It speaks to their formal roles and persona and to how they show up in interactions.
<i>Sub-theme 1.2.5: Stakeholder Choice</i>
<i>Stakeholder Choice</i> addresses the innate imperative for stakeholders to exercise their agency, to make decisions, based on their beliefs, intentions motives and priorities.
<i>Sub-theme 1.2.6: Stakeholder Power</i>
<i>Stakeholder Power</i> focuses attention on the power dynamics which are evident in relationships between stakeholders.
<i>Sub-theme 1.2.7: Stakeholder Vulnerability</i>
<i>Stakeholder Vulnerability</i> focuses attention on the relative powerlessness and dependence of some stakeholders.
<b>Meta-theme 2: Stakeholder Engagement</b>
<b>Theme 2.1: Stakeholder Interactions</b>
<i>Stakeholder Interactions</i> are the individual exchanges which happen between stakeholders and other entities.
<i>Sub-theme 2.1.1: Interaction Connection</i>
<i>Interaction Connection</i> describes all the ways in which stakeholders make contact with other entities in their interactions.
<i>Sub-theme 2.1.2: Interaction Intention</i>
<i>Interaction Intention</i> is why stakeholders interact with other entities, the reasons underpinning their interactions.
<i>Sub-theme 2.1.3: Interaction Action</i>
<i>Interaction Action</i> encompasses the activities and behaviours which occur during interactions between stakeholders and other entities.
<b>Theme 2.2: Stakeholder Investment</b>
<i>Stakeholder Investment</i> is the contribution of personal resources by stakeholders within the context of the problem ecology. In the context of this study stakeholders were found to invest their social, physical, intellectual, spiritual and emotional resources when they engage. These interactions involve connecting and acting with other entities with intention.
<i>Sub-theme 2.2.1: Social Investment</i>
<i>Social Investment</i> is the contribution of personal social resources by stakeholders within the context of the problem ecology. These investments are rooted in the social complexity of stakeholders and are evident in their relationships, and economic and organisational interactions.

<i>Sub-theme 2.2.2: Physical or Practical Investment</i>
<i>Physical or Practical Investment</i> is the contribution of personal physical resources by stakeholders within the context of the problem ecology. These investments are rooted in the physical complexity of stakeholders and are evident in the tangible contributions they make in interactions through physical activity.
<i>Sub-theme 2.2.3: Intellectual Investment</i>
<i>Intellectual Investment</i> is the contribution of personal physical resources by stakeholders within the context of the problem ecology. These investments are rooted in the intellectual complexity of stakeholders and are evident in the cognitive value which they add to interactions.
<i>Sub-theme 2.2.4: Spiritual Investment</i>
<i>Spiritual Investment</i> is the contribution of personal spiritual resources by stakeholders within the context of the problem ecology. These investments are rooted in the spiritual complexity of stakeholders and are evident in the belief, conviction, motivation and commitment which they bring to their interactions.
<i>Sub-theme 2.2.5: Emotional Investment</i>
<i>Emotional Investment</i> is the contribution of personal emotional resources by stakeholders within the context of the problem ecology. These investments are rooted in the emotional complexity of stakeholders and are evident in the feelings and attitudes which they bring to interactions.
<b>Theme 2.3: Stakeholder Enrolment</b>
<i>Stakeholder Enrolment</i> is the use of personal resources by stakeholders, whom the researcher has called leaders, specifically intended to elicit investment by other stakeholders within the context of the problem ecology. In the context of this study leaders were found to use their social, physical, intellectual, spiritual and emotional resources to enrol others in interactions.
<i>Sub-theme 2.3.1: Social Enrolment</i>
<i>Social Enrolment</i> is the use of personal social resources by leaders to elicit investment by other stakeholders within the context of the problem ecology. These efforts are rooted in the social complexity of leaders and are evident in social behaviours such as efforts to understand others, encouragement of involvement, talking and listening.
<i>Sub-theme 2.3.2: Physical or Practical Enrolment</i>
<i>Physical or Practical Enrolment</i> is the use of personal physical resources by leaders to elicit investment by other stakeholders within the context of the problem ecology. These efforts are rooted in the physical complexity of stakeholders and are evident in physical or practical behaviours such as location choices, taking specific actions and providing tangible resources.
<i>Sub-theme 2.3.3: Intellectual Enrolment</i>
<i>Intellectual Enrolment</i> is the use of personal intellectual resources by leaders to elicit investment by other stakeholders within the context of the problem ecology. These efforts are rooted in the intellectual complexity of stakeholders and are evident in intellectual behaviours such as intellectual humility and seeking to understand others.
<i>Sub-theme 2.3.4: Spiritual Enrolment</i>
<i>Spiritual Enrolment</i> is the use of personal spiritual resources by leaders to elicit investment by other stakeholders within the context of the problem ecology. These efforts are rooted in the spiritual complexity of stakeholders and are evident in spiritual behaviours such as exercising and giving agency, taking responsibility and being trustworthy.

<i>Sub-theme 2.3.5: Emotional Enrolment</i>
<i>Emotional Enrolment</i> is the use of personal emotional resources by leaders to elicit investment by other stakeholders within the context of the problem ecology. These efforts are rooted in the emotional complexity of stakeholders and are evident in the feelings and attitudes which they bring to interactions.
<b>Theme 2.4: Stakeholder Engagement Experience</b>
The <i>Stakeholder Engagement Experience</i> focuses attention on the subjective experiences which make interactions enriching or valuable to stakeholders and which impact on how they change as a result of these interactions. These experiences are rooted in the complexity of stakeholders and may be social, physical or practical, intellectual, spiritual or emotional.
<i>Sub-theme 2.4.1: Social Experience</i>
<i>Social Experiences</i> make interactions enriching or valuable to stakeholders and impact on how they change as a result of these interactions. These experiences are rooted in the social complexity of stakeholders and are reflected in benefits such as social affirmation, understanding, appreciation and relationships.
<i>Sub-theme 2.4.2: Physical or Practical Experience</i>
<i>Physical or Practical Experiences</i> make interactions enriching or valuable to stakeholders and impact on how they change as a result of these interactions. These experiences are rooted in the physical complexity of stakeholders and are reflected in benefits such as tangible rewards and living practical realities.
<i>Sub-theme 2.4.3: Intellectual Experience</i>
<i>Intellectual Experiences</i> make interactions enriching or valuable to stakeholders and impact on how they change as a result of these interactions. These experiences are rooted in the intellectual complexity of stakeholders and are reflected in benefits such as insight, sense-making and awareness.
<i>Sub-theme 2.4.4: Spiritual Experience</i>
<i>Spiritual Experiences</i> make interactions enriching or valuable to stakeholders and impact on how they change as a result of these interactions. These experiences are rooted in the spiritual complexity of stakeholders and are reflected in benefits such as finding meaning, sharing unity and discovering passion.
<i>Sub-theme 2.4.5: Emotional Experience</i>
<i>Emotional Experiences</i> make interactions enriching or valuable to stakeholders and impact on how they change as a result of these interactions. These experiences are rooted in the emotional complexity of stakeholders and are reflected in benefits such as satisfaction, enjoyment and being heard.
<b>Theme 2.5: Stakeholder Engagement Process</b>
The <i>Stakeholder Engagement Process</i> is the collection of activities through which stakeholders become increasingly committed over time to investing their personal resources within the problem ecology.
<i>Sub-theme 2.5.1: Connection Process</i>
<i>Connection Process</i> is the process activity which brings stakeholders together to interact meaningfully with other entities in the problem ecology.

<i>Sub-theme 2.5.2: Intention Process</i>
<i>Intention Process</i> is the process activity which enables stakeholders to define collective goals and develop action plans with respect to the problem ecology.
<i>Sub-theme 2.5.3: Action Process</i>
<i>Action Process</i> is the process activity in which stakeholders implement their plans to shift the problem ecology and monitor the outcomes of their interventions.
<i>Sub-theme 2.5.4: Collaborative Process</i>
The stakeholder engagement process is a <i>Collaborative Process</i> , which requires stakeholders to work collectively in egalitarian structures.
<i>Sub-theme 2.5.5: Iterative Process</i>
The stakeholder engagement process is an <i>Iterative Process</i> , which requires stakeholders to cycle repeatedly through the 3 core activities of connection, intention, and action.
<i>Sub-theme 2.5.6: Adaptive Process</i>
The stakeholder engagement process is an <i>Adaptive Process</i> , which requires stakeholders to assimilate and adjust constantly to emergent conditions and information.

## **8.10 Appendix 8.10 – Focus Group Reference Material**

Prior to the focus group, the researcher emailed the following reference material to the participants to enable effective critique of the sense-making framework during the discussion and to invite suggestions regarding its applicability to improve stakeholder engagement in the context of wicked problems. Minor changes were made to the sense-making framework after the focus group.

### **This Material**

This confidential document is for reference in the focus group and includes:

1. Aim and objectives of the research.
2. Explanation of the focus group discussion.
3. The sense-making framework – colour-coded for ease of reference in this discussion.
4. Definitions of concepts in the sense-making framework - colour-coded for ease of reference in this discussion.

### **Aim and Objectives of the Research**

The aim of this research, is to propose a sense-making framework for improving stakeholder engagement in the context of wicked problems by meeting the following objectives:

1. RO1 - Explore and reframe the concepts of wicked problems, stakeholders and stakeholder engagement.
2. RO2 - Differentiate and integrate key thematic concepts associated with wicked problems, stakeholders and stakeholder engagement into a sense-making framework for improving stakeholder engagement in the context of wicked problems.
3. RO3 - Review the proposed sense-making framework for coherence and application to improving stakeholder engagement.

### **Focus Group Discussion**

The purpose of the focus group is to contribute answers to the following secondary research questions (SRQ3 and SRQ4):

How could the concepts of wicked problems, stakeholders and stakeholder engagement be integrated and mapped into a useful sense-making framework for stakeholder engagement in the context of wicked problems?

How could this sense-making framework be applied to improve stakeholder engagement in the context of wicked problems?

The focus group will direct attention to the coherence and application of the sense-making framework, through:

- Positive and negative critique of the framework as it pertains to making sense of
  - Wicked problems
  - Stakeholders
  - Stakeholder engagement
- Exploring how the framework might be applied to improving stakeholder engagement in the context of wicked problems.

### **Sense-making Framework to Improve Stakeholder Engagement in the Context of Wicked Problems**

Meta-theme	Themes	Sub-themes		
Wicked Ecologies	Wicked Problems	Problem Complexity	Problem Change	Problem Conflict
		Impactful Problem	Imperative Problem	Intimidating Problem
		Illusive Problem	Intractable Problem	Influenceable Problem
	Stakeholders	Stakeholder Complexity	Stakeholder Change	Stakeholder Conflict
		Stakeholder Identity	Stakeholder Choice	
		Stakeholder Power	Stakeholder Vulnerability	
Stakeholder Engagement	Stakeholder Interaction	Interaction Connection	Interaction Intention	Interaction Action
	Stakeholder Investment	Social Investment	Physical/ Practical Investment	Intellectual Investment
		Spiritual Investment	Emotional Investment	
	Stakeholder Enrolment	Social Enrolment	Physical/ Practical Enrolment	Intellectual Enrolment
		Spiritual Enrolment	Emotional Enrolment	
	Stakeholder Engagement Experience	Social Experience	Physical/ Practical Experience	Intellectual Experience
		Spiritual Experience	Emotional Experience	
	Stakeholder Engagement Process	Connection Process	Intention Process	Action Process
		Collaborative Process	Iterative Process	Adaptive Process

#### **Fractal Concepts at different levels of system:**

1. Complexity, Change and Conflict
  - a. Applied to wicked problems and stakeholders
2. Five SPISE aspects of personhood – Social, Physical (Practical), Intellectual, Spiritual, Emotional.
  - a. Applied to stakeholder complexity, stakeholder investment (IN), stakeholder enrolment (OF), stakeholder engagement experience.
3. Connection, Intention and Action

- a. Applied to Stakeholder Interaction and Stakeholder Engagement Process

***Concepts specifically excluded from the sense-making framework include:***

1. Return on Investment – desirable outcomes from effective stakeholder engagement.
2. Facilitation – recommendations in respect of the actual facilitation of stakeholder engagement processes.
3. Stakeholder Systems – information pertaining to the building of a healthy stakeholder ecosystem.
4. Resources – resources for participation or facilitation of stakeholder engagement processes.

The researcher also provided a table of definitions of thematic findings, which is already included in Appendix 8.9 and which is not repeated here.



## **8.11 Appendix 8.11 – Actual Focus Group Interview Questions**

### **Question 1**

I would like to hear from you, first up, if you have any critiques. Do you feel there's anything missing? Do you feel that anything is wrong in what you have seen in this brief overview?

(Participants were asked to independently apply this question to Wicked Problems, Stakeholders and Stakeholder Engagement).

### **Question 2**

Ideally the focus now is on the whole framework. How does this help us to improve stakeholder engagement?

## 8.12 Appendix 8.12 – Sample Data Set

**Table 40** is an illustrative sample of the data from Atlas.ti. The whole data set is available in Excel if required.

**Table 40 Sample Data Set**

	<b>Text Content</b>	<b>Code</b>	<b>Meta-theme</b>	<b>Theme</b>	<b>Sub-theme</b>
P8	It's almost like if you feel sick and you go to the doctor and the doctor says, oh, you've got this, then it's like, oh okay, I feel better now because I know it's got a name. I know what it is, I know how to treat it, I know where it came from, I know all these things.	SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
P8	So we engaged with a whole bunch of different people. And we got a completely different story than what we've been told officially by the media, and just being in that space, being at the border, seeing where people cross over the river.	SE IN Physical/ Practical	Stakeholder Engagement	Stakeholder Investment	Physical/ Practical Investment
		SE IN Social	Stakeholder Engagement	Stakeholder Investment	Social Investment
		SE Interaction Connection	Stakeholder Engagement	Stakeholder Interaction	Interaction Connection
		SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
		Stakeholder Dynamic Complexity Intellectual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Intellectual
		Stakeholder Dynamic Conflict	Stakeholders	Stakeholder Dynamics	Stakeholder Conflict
P7	A lot of natural resource management where I work, human interaction, a sociological interaction, a lot of those things are sort of almost mandatorily wicked.	WP Demand Intractable	Wicked Problems	Problem Demands	Intractable Problem
		WP Dynamic Complexity	Wicked Problems	Problem Dynamics	Problem Complexity
		SE OF Emotional	Stakeholder Engagement	Stakeholder Enrolment	Emotional Enrolment
		SE OF Physical/ Practical	Stakeholder Engagement	Stakeholder Enrolment	Physical/ Practical Enrolment
		SE OF Social	Stakeholder Engagement	Stakeholder Enrolment	Social Enrolment

P5	And also I would not tell them all the information that is in the training, I would just say, there is the training. So the information was a bit more – the information need was more top line.	SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
P8	And countries were protecting their borders and leaders were in full control of the situation. They had full say in what happens, and it was very hierarchical and power based.	SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
		Stakeholder Agency Identity	Stakeholders	Stakeholder Agency	Stakeholder Identity
P6	And also the territory, so the physical space where one chooses to hold this kind of conversation is of paramount importance, because it also sends subliminal messages of where the power sits.	SE OF Physical/ Practical	Stakeholder Engagement	Stakeholder Enrolment	Physical/ Practical Enrolment
		SE OF Social	Stakeholder Engagement	Stakeholder Enrolment	Social Enrolment
		SE Process Collaborative	Stakeholder Engagement	Stakeholder Engagement Process	Collaborative Process
		SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
		SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
		Stakeholder Dynamic Complexity Social	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Social
P5	And I also learnt – maybe one more success story for me, I once presented something for a boss of my boss and then he shut it down but there was no time to properly explain to him how I got to this result, but it was the best result.	SE IN Intellectual	Stakeholder Engagement	Stakeholder Investment	Intellectual Investment
		SE Interaction Intention	Stakeholder Engagement	Stakeholder Interaction	Interaction Intention
		SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
P5	And I felt like the boss of the boss thought I did a shit job while I did a good job, but he didn't justify it because he just went to trust his own instincts over hearing how I got to that project.	SE Experience Social	Stakeholder Engagement	Stakeholder Engagement Experience	Social Experience
		Stakeholder Dynamic Complexity Intellectual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Intellectual

P6	And I guess that could be a real win-win if one's able to get through a wicked problem and actually have improved the organisation at the end of it, so that's really ideal.	SE Process Adaptive	Stakeholder Engagement	Stakeholder Engagement Process	Adaptive Process
		Stakeholder Dynamic Change	Stakeholders	Stakeholder Dynamics	Stakeholder Change
P4	And I look at things like scientists just, I don't know, letting Nano-bots out into the environment without – if that goes horribly pear-shaped who is going to take responsibility for it, because there is always the potential for unintended consequences in a complex system.	SE Process Action	Stakeholder Engagement	Stakeholder Engagement Process	Action Process
P3	And I picked up at that time that a wicked problem is so broad, beyond technology, and beyond ICT sectors.	WP Dynamic Complexity	Wicked Problems	Problem Dynamics	Problem Complexity
P10	And in the context of wicked solutions everything is about finding some way to get out of this wicked problem.	SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
P5	And often then those resources need to be freed on a short timeline so you can do quarterly planning, for example, so you can plan a quarter ahead.	SE Interaction Intention	Stakeholder Engagement	Stakeholder Interaction	Interaction Intention
		SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
		Stakeholder Dynamic Complexity SPISE	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity
P1	And so no-one is going to do anything about it because everyone is equally complicit.	Stakeholder Agency Identity	Stakeholders	Stakeholder Agency	Stakeholder Identity
		Stakeholder Dynamic Complexity Social	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Social
P8	And with enlightenment being introduced it's kind of like we explained away the magic, we just made sense of things, things became categorised, classified.	Stakeholder Dynamic Complexity Intellectual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Intellectual

P8	And countries were protecting their borders and leaders were in full control of the situation. They had full say in what happens, and it was very hierarchical and power based.	SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
		Stakeholder Agency Identity	Stakeholders	Stakeholder Agency	Stakeholder Identity
P5	And I also learnt – maybe one more success story for me, I once presented something for a boss of my boss and then he shut it down but there was no time to properly explain to him how I got to this result, but it was the best result.	SE IN Intellectual	Stakeholder Engagement	Stakeholder Investment	Intellectual Investment
		SE Interaction Intention	Stakeholder Engagement	Stakeholder Interaction	Interaction Intention
		SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
P6	And I don't think that it would always need to be seen as negative, I think if one's a good listener you would understand the opposing views and perspectives.	SE IN Intellectual	Stakeholder Engagement	Stakeholder Investment	Intellectual Investment
		SE IN Social	Stakeholder Engagement	Stakeholder Investment	Social Investment
		SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
		Stakeholder Dynamic Complexity Social	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Social
		WP Dynamic Conflict	Wicked Problems	Problem Dynamics	Problem Conflict
P5	And I felt like the boss of the boss thought I did a shit job while I did a good job, but he didn't justify it because he just went to trust his own instincts over hearing how I got to that project.	SE Experience Social	Stakeholder Engagement	Stakeholder Engagement Experience	Social Experience
		Stakeholder Dynamic Complexity Intellectual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Intellectual
P6	And I guess that could be a real win-win if one's able to get through a wicked problem and actually have improved the organisation at the end of it, so that's really ideal.	SE Process Adaptive	Stakeholder Engagement	Stakeholder Engagement Process	Adaptive Process
		Stakeholder Dynamic Change	Stakeholders	Stakeholder Dynamics	Stakeholder Change
P7	But at any scale or level you can actually draw who's taking part in which of those things.	SE IN SPISE	Stakeholder Engagement	Stakeholder Investment	A combination of SPISE investment
		Stakeholder Agency Identity	Stakeholders	Stakeholder Agency	Stakeholder Identity

P4	And I look at things like scientists just, I don't know, letting Nano-bots out into the environment without – if that goes horribly pear-shaped who is going to take responsibility for it, because there is always the potential for unintended consequences in a complex system.	SE Process Action	Stakeholder Engagement	Stakeholder Engagement Process	Action Process
P3	And I picked up at that time that a wicked problem is so broad, beyond technology, and beyond ICT sectors.	WP Dynamic Complexity	Wicked Problems	Problem Dynamics	Problem Complexity
P10	And in the context of wicked solutions everything is about finding some way to get out of this wicked problem.	SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
P5	And often then those resources need to be freed on a short timeline so you can do quarterly planning, for example, so you can plan a quarter ahead.	SE Interaction Intention	Stakeholder Engagement	Stakeholder Interaction	Interaction Intention
		SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
		Stakeholder Dynamic Complexity SPISE	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity
P1	And so no-one is going to do anything about it because everyone is equally complicit.	Stakeholder Agency Identity	Stakeholders	Stakeholder Agency	Stakeholder Identity
		Stakeholder Dynamic Complexity Social	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Social
P8	And with enlightenment being introduced it's kind of like we explained away the magic, we just made sense of things, things became categorised, classified.	Stakeholder Dynamic Complexity Intellectual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Intellectual
P10	But as that engagement went on then it would have turned to something more positive.	SE Process Adaptive	Stakeholder Engagement	Stakeholder Engagement Process	Adaptive Process
		Stakeholder Dynamic Change	Stakeholders	Stakeholder Dynamics	Stakeholder Change
P8	Basically it was the metaphors we use to understand the pandemic and most people were using the war metaphor.	SE IN Intellectual	Stakeholder Engagement	Stakeholder Investment	Intellectual Investment

P2	do think that if we talk about Maslow and the pyramid of needs wanting to be met I think before that you should not expect people to take ownership beyond what they need for themselves, and rightly so.	SE IN Physical/ Practical	Stakeholder Engagement	Stakeholder Investment	Physical/ Practical Investment
		Stakeholder Dynamic Complexity Physical/ Practical	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Physical/ Practical
		Stakeholder Dynamic Complexity Spiritual	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity - Spiritual
		Stakeholder Dynamic Complexity SPISE	Stakeholders	Stakeholder Dynamics	Stakeholder Complexity
P1	don't think we're ever meant to fix them. I don't think that it will ever get to the point where we have a sort of Utopian society where there is no more hunger and no more poverty, and children – every single child goes to school, because then what's the point?	SE Process Intention	Stakeholder Engagement	Stakeholder Engagement Process	Intention Process
		WP Demand Intractable	Wicked Problems	Problem Demands	Intractable Problem
P3	First thing, communication, number 1. I'm going to manage my strategies. The wickedness by, number 1, strategy, communication, right? I'm just putting myself inside this deep hole here and seeing how I'm going to do it.	SE Interaction Connection	Stakeholder Engagement	Stakeholder Interaction	Interaction Connection
		SE Process Connection	Stakeholder Engagement	Stakeholder Engagement Process	Connection Process
P9	Give people something small to hold onto.	SE Process Action	Stakeholder Engagement	Stakeholder Engagement Process	Action Process
		SE Process Adaptive	Stakeholder Engagement	Stakeholder Engagement Process	Adaptive Process
		SE Process Iterative	Stakeholder Engagement	Stakeholder Engagement Process	Iterative Process

### 8.13 Appendix 8.13 – Data Analysis Sample

**Table 41** provides examples of individual first round codes that were ultimately included in some of the sub-themes. The first two rounds of coding yielded 9566 codes, which were all ultimately allocated to one of the sub-themes or the excluded themes.

**Table 41 Data Analysis Sample**

Meta-theme	Theme	Sub-theme	First round codes
Wicked Problems	Problem Dynamics	Problem Complexity	Attributes Beget problems Beget system Big picture Biophysical drivers Boundaries arbitrary Chaotic Collective choices Connections differ Cynefin Difficult Constraints STEEP Drivers Environment History
Stakeholders	Stakeholder Agency	Stakeholder Power	Status Abuse Access Authority Control Create rules Decision-making authority Demands Favours Hierarchical Impact Influence Leaders Paternalism
Stakeholder Engagement	Stakeholder Engagement Process	Connection Process	Alliances Awareness Background information Be heard Bring together Build picture Building trust Buy-in Care Centralised