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Understanding the Nature of Engagement with Executive Managers to Create and Sustain Strategic Alignment: The Case of Network Utility Organisations in Ireland

Volume 1 of 2

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Declaration

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Summary

This thesis investigates how Executive Managers engage in the creation and sustenance of strategic alignment between business and Information Systems (IS) strategies over time, addressing three critical shortcomings in the existing literature. First, although strategic alignment has been extensively studied, the literature offers limited insight into the strategic alignment process - that is, the phases, stages, and activities through which strategic alignment is enacted in practice. Second, existing models provide insufficient attention to the mediating role of IS artefacts, despite their centrality in organisational sensemaking, decision-making, and cross-functional negotiation. Third, although Executive Manager involvement is widely acknowledged as essential, there is no robust theorisation of how executives engage across the strategic alignment process. This study foregrounds the lived experience of Executive Managers and positions their contributions and the value they derive from engagement as central to the construction of a viable, contextually grounded strategic alignment process.

The study adopts a relativist ontological stance and an interpretivist/constructivist epistemology, recognising that organisational reality is socially constructed and that strategic alignment emerges through interaction, interpretation, and negotiation. This philosophical position directly shapes the methodological approach. A qualitative, longitudinal, multi-case study design enables an in-depth examination of Executive Manager engagement within real-world strategic alignment episodes, while supporting a processual inquiry into how alignment unfolds over time. Narrative analysis, thematic analysis, and grounded theory strategy for qualitative data analysis provide a coherent and philosophically aligned means of capturing actors' meanings, the negotiated nature of artefacts, and the socially mediated work involved in constructing strategic alignment. Throughout, strategic alignment is understood not as an objective state but as something enacted, contested, and continuously reconstructed by organisational participants.

Three major Irish network utility organisations - Electricity Supply Board Networks, Gas Networks Ireland, and Uisce Éireann - were purposefully selected as case studies. These cases provided naturally bounded episodes within which the dynamics of strategic alignment could be observed in rich organisational settings.

The first major contribution of this research is the development of the *Strategic Alignment Process Framework*, which specifies the phases, stages, activities, and IS artefacts that constitute alignment work. The findings demonstrate that strategic alignment is neither a discrete event nor a static state, but a cyclical, multi-phase process of recurrent activities through which business and IS domains work to create and sustain coherence. The research shows that artefacts are not merely outputs of alignment processes; they are central mediators that facilitate shared understanding, anchor decision-making, and translate strategic intent into operational reality. Their iterative development - co-created, reviewed, challenged, and refined - reveals alignment as an artefact-centred practice of collaborative sense-making.

The second major contribution is the conceptualisation of the *Strategic Alignment Lifecycle Loop*, which depicts alignment as an ongoing organisational process shaped by iterative feedback between strategic intent, business requirements, organisational realities, technological constraints, and regulatory demands. This dynamic formulation challenges static models and underscores the necessity of continuous recalibration rather than one-off planning. It reframes alignment as a recurring organisational capability enacted through cycles of sensing, interpretation, and enactment.

The third major contribution is the articulation of the *Executive Manager Engagement Cycle*. The research demonstrates that executive engagement is not a uniform or static construct, but a dynamic process that varies in depth, scope, and timing across alignment phases. Executives both influence and are influenced by alignment work, engaging through recurring modes such as sensemaking, direction-setting, challenge, validation, mobilisation, and recalibration. In addition, the research proposes Financial Alignment as a distinct alignment type - a mechanism through which competing interests are reconciled, priorities confirmed, and alignment sustained over time. This study also introduces a novel theoretical framework that synthesises the co-evolutionary perspective with the enterprise architecture view.

Overall, the thesis provides an empirically grounded and operationalised account of how strategic alignment is enacted in practice by illuminating the “how” of strategic alignment, and highlighting the pivotal role of Executive Manager engagement in shaping strategic outcomes within complex organisational environments.

Abstract

Strategic alignment between business and information systems (IS) strategies remains a persistent challenge for organisations, particularly in complex, regulated, and resource-constrained settings of Network Utility Organisations in Ireland. This thesis explains how alignment is created and sustained over time by developing an empirically grounded account that integrates both process-oriented and practice-oriented perspectives. Adopting a relativist ontology and interpretivist/constructivist epistemology, the study employs a qualitative, longitudinal multi-case design, combining narrative strategy, processual inquiry, thematic analysis and grounded theory strategy.

The thesis offers several key contributions. First, it operationalises the "how" of alignment through the *Strategic Alignment Process Framework*, mapping the phases, stages and IS artefacts that structure alignment work. Second, it reconceptualises strategic alignment as a dynamic, cyclical construct with the *Strategic Alignment Lifecycle Loop*, formalising feedbacks between strategy formulation, delivery execution and operations, and ongoing adaptation. Third, the research develops a mechanism-level account of social alignment via the *Executive Manager Engagement Cycle*, detailing the routines and set of novel attributes that make executive engagement purposeful and effective. Fourth, the study proposes Financial Alignment as a distinct alignment type, demonstrating that financial scrutiny and value justification are central, recurring mechanisms in alignment practice. Fifth, this study introduces a novel theoretical framework that synthesises the co-evolutionary perspective with the enterprise architecture view.

The thesis seeks to demystify the strategic alignment by situating Strategic Alignment Process Framework at the epicentre of Strategic Alignment Lifecycle Loop and Executive Manager Engagement Cycle. Within this construct, alignment types act as intervening mechanisms that initiate, shape, and ensure the sustainment of strategic coherence across successive cycles, offering a deeper understanding of how alignment is created and sustained over time. The findings offer theoretical, empirical and practical value, providing actionable frameworks, engagement toolkits, and artefact templates that organisations can adapt to structure, diagnose, and improve alignment. The research lays a foundation for future studies to test and refine these models in other contexts and contributes to bridging the gap between theory and practice in strategic alignment.

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This thesis marks the culmination of a journey that has been both deeply personal and professionally transformative. I am profoundly grateful to my parents, wife, kids and dogs, whose unwavering support, encouragement and barking have sustained me throughout this process. Growing up in a family of academics instilled in me a respect for education and research, and those early influences have shaped the path that led me here.

I owe special thanks to my supervisor, Professor Joseph McDonagh, for his guidance, patience, and invaluable insights. His mentorship not only strengthened the quality of this research but also inspired me to think critically and ambitiously. I am equally thankful to my friends, colleagues and peers for their stimulating discussions and encouragement, which enriched my perspective and kept me motivated.

To the organisations and participants who contributed to this research, I extend my sincere appreciation. Their willingness to share their experiences made this research possible and meaningful.

This journey has allowed me to reconnect with my academic roots while drawing on nearly three decades of professional experience. It has been a privilege to explore the intersection of theory and practice in the Information Systems domain, and I hope that the contributions of this work will help bridge that divide. As I look ahead, I remain committed to sharing knowledge and fostering learning, and I am deeply thankful for everyone who helped me take this step toward that goal.

Table of Contents

Declaration ..... **iii**

Summary ..... **iv**

Abstract ..... **vi**

Acknowledgements ..... **vii**

Table of Contents ..... **viii**

List of Tables ..... **xii**

List of Figures ..... **xiv**

Acronyms ..... **xviii**

1 Introduction **1**

1.1 Objective of the Research *2*

1.2 Research Question *4*

1.3 Research Contribution *5*

1.4 Personal Motivation for the Research *8*

1.5 Structure of the Thesis *9*

1.6 Conclusion *12*

2 Literature Review **13**

2.1 Overture *14*

2.1.1 Information Systems 14

2.1.2 Strategy 16

2.2 Information Systems Strategy and Planning *18*

2.2.1 Evolution of Thinking in Information Systems Strategy and Planning 19

2.3 Strategic Alignment *29*

2.3.1 Definition of Strategic Alignment 29

2.3.2 Evolution of Thinking in Strategic Alignment 34

2.3.3 Critical Summary of the Strategic Alignment Literature 49

2.4 Definition of Engagement with Executive Managers *51*

2.4.1 Executive Engagement in Strategic Management Literature 52

2.4.2 Executive Engagement in Strategic Alignment Literature 55

2.4.3 Executive Engagement in this Research 57

2.5 Preliminary Conceptual Framework 59

2.6 Conclusion 63

3 Research Strategy Design and Execution 64

3.1 Overture 64

3.2 Research Paradigms and Philosophical Assumptions 65

3.3 Information Systems as a Research Domain 67

3.3.1 Ontology 68

3.3.2 Epistemology 70

3.3.3 Human Nature 72

3.3.4 Axiology 73

3.3.5 Closure 73

3.4 Methodology 73

3.5 Research Method 75

3.5.1 Case Study 76

3.5.2 Processual Inquiry 77

3.6 Research Strategy Execution 81

3.6.1 Selection of Case Study Organisations 81

3.6.2 Gaining Access and Selection of Episodes 83

3.6.3 Interviewee Selection 84

3.6.4 Data Collection 85

3.6.5 Writing up the Cases 91

3.6.6 Data Analysis 92

3.6.7 Key Considerations of the Research 104

3.7 Implications of Research Design and Strategy on the Preliminary Conceptual Framework 109

3.8 Conclusion 110

4 Stories from the Field 112

4.1 Case Study Organisation 1 | Electricity Supply Board Networks (ESBN) 113

4.1.1 Company Overview 113

4.1.2 Business Strategy Overview 113

4.1.3 IS Strategy Development and Strategic Alignment Episode Overview 114

4.1.4 Selected Episode | ESBN Powering Ahead Programme 115

4.1.5 Executive Engagement within the Selected Episode 136

4.2 Case Study Organisation 2 | Gas Networks Ireland (GNI) 146

4.2.1 Company Overview 146

4.2.2 Business Strategy Overview 146

4.2.3 IS Strategy Development and Strategic Alignment Episode Overview 147
4.2.4 Selected Episode | GNI IT Applications Strategy Development Project 148
4.2.5 Executive Engagement within the Selected Episode 164

4.3 Case Study Organisation 3 | Uisce Éireann (UÉ) 171
4.3.1 Company Overview 171
4.3.2 Business Strategy Overview 171
4.3.3 IS Strategy Development and Strategic Alignment Episode Overview 173
4.3.4 Selected Episode | UÉ ICT Strategy Development Project 173
4.3.5 Executive Engagement within the Selected Episode 196

4.4 Conclusion 206

5 Theory Development 207
5.1 Focus of Inquiry 207
5.1.1 Transition from the Stories from the Field to Theory Development 209

5.2 Answer to the Research Question 213
5.2.1 Answers to the Research Sub-Questions 218
5.2.2 What are the phases/stages of IS strategic alignment work as they unfold over time? 219
5.2.3 What specific alignment work sits within each phase/stage? 227
5.2.4 Preliminary Conclusions on Research Sub-Questions 1 and 2 228
5.2.5 How are executive managers engaged in each phase and what is the nature of that engagement? 230
5.2.6 Preliminary Conclusions on Research Sub-Question 3 268

5.3 Revised Conceptual Framework 274
5.3.1 Reflections on Preliminary Conceptual Framework 274
5.3.2 Proposed Theoretical Framework 275

5.4 Conclusion 281

6 Discussion 282
6.1 Key Findings and Conceptual Developments 282
6.1.1 Strategic Alignment Process Framework 283
6.1.2 Strategic Alignment Lifecycle Loop 284
6.1.3 Nature of Engagement with Executive Managers 284
6.1.4 Financial Alignment 286
6.1.5 Closure 289

6.2 Interpretation of Findings in Relation to Literature 290
6.2.1 Strategic Alignment Process Framework – Phases, Stages and IS Artefacts 291
6.2.2 Strategic Alignment as a Dynamic, Lifecycle Loop and Processual Phenomenon 293
6.2.3 Stakeholder Theory and Executive Engagement Attributes 296

6.2.4 Executive Engagement in Strategic Alignment 298
6.2.5 Financial Alignment: A New Alignment Type in Strategic Alignment Discourse 302
6.2.6 Executive Manager Engagement in Creating and Sustaining Strategic Alignment Over Time 305
6.2.7 Synthesis: Contributions and Points of Departure 313
6.3 Theoretical Contributions 316
6.3.1 Primary Contributions 317
6.3.2 Secondary Contributions 322
6.4 Empirical Contributions 332
6.5 Practical Contributions 334
6.5.1 Actionable Process and Artefact Tools for Alignment 334
6.5.2 Executive Engagement and Leadership Practice 335
6.5.3 Financial and Value Management in Alignment 336
6.5.4 Strategic Use of Enterprise Architecture View 338
6.6 Methodological Reflections 339
6.7 Limitations of the Study 340
6.8 Directions for Future Research 342
6.9 Conclusions 344
7 Conclusion 346
7.1 Relevance of the Research Study 346
7.2 Restatement of Research Objectives and Questions 347
7.3 Accomplishment of the Purpose and Aims 348
7.4 Summary of Key Findings and Contributions 350
7.4.1 Overview of Key Findings 350
7.4.2 Contributions 352
7.5 Reflections on the Research Journey 358
7.6 Limitations of the Study 359
7.7 Practical Recommendations 361
7.8 Directions for Future Research 362
7.9 Final Remarks 364
8 Appendices 365
9 Bibliography 366

List of Tables

Table 1 - Research Question and Sub-Questions....5
Table 2 - Research Sub-Questions and Identified Gaps in the Literature....7
Table 3 - Research Contributions....8
Table 4 - Antecedents and Enablers of Strategic Alignment....37
Table 5 - Operationalisation of Stakeholder Engagement in Strategic Alignment....57
Table 6 - Case Study Organisation Engagement Timeline....84
Table 7 - Informants and Interview Summary....85
Table 8 - Data Requirements for the Research Question....86
Table 9 - Interview Types....89
Table 10 - Case Narrative Structure....92
Table 11 - Qualitative Data Analysis Approach....94
Table 12 - Case Study Organisations, Selected Episodes, and Structure of Case Study Narrative....112
Table 13 - Executive Engagement Types and Schedule – Case Study 1....137
Table 14 - Inputs provided by Executive Managers - Case Study 1....143
Table 15 - Outcomes Gained by Executive Managers - Case Study 1....144
Table 16 - Executive Engagement - Timing, Scope and Depth Summary....164
Table 17 - Inputs provided by Executive Managers - Case Study 2....168
Table 18 - Outcomes Gained by Executive Managers - Case Study 2....170
Table 19 - Executive Engagement - Timing, Scope and Depth Summary....197
Table 20 - Inputs provided by Executive Managers - Case Study 3....201
Table 21 - Outcomes Gained by Executive Managers - Case Study 3....205
Table 22 - Initial Steps of Transition from Empirical Explanation to Theory Development....210
Table 23 - Phase Definitions - Strategic Alignment Process Framework....222
Table 24 - Phases, Stages and IS Artefacts - Strategic Alignment Process Framework....228
Table 25 - Consolidated List of Executive Engagement Types....231
Table 26 - Forms and Types of Engagement with Executive Managers....233
Table 27 - Thematic Analysis of Executive Engagement Attributes....235

Table 28 - Chain of Evidence - Strategic Direction and Governance....242
Table 29 - Chain on Evidence - Conflict Resolution....243
Table 30 - Chain of Evidence - Strategic Refinement....244
Table 31 - Chain of Evidence - Boundary Setting....245
Table 32 - Chain of Evidence - Financial Alignment....247
Table 33 - Chain of Evidence - Stakeholder Management and Influence....249
Table 34 - Chain of Evidence - Strategic Communication and Framing....251
Table 35 - Chain of Evidence - Capability and Culture Building....253
Table 36 - Chain of Evidence - Adaptive Strategic Engagement....258
Table 37 - Chain of Evidence - Clarity, Validation, Legitimacy and Empowerment....261
Table 38 - Chain of Evidence - Confidence and Credibility....262
Table 39 - Chain of Evidence - Strategic Delivery and Value Realisation....265
Table 40 - Cross-Case Comparative Analysis....273
Table 41 - Facets of Alignment Types....288

List of Figures

Figure 1 - Structure of the Thesis 10

Figure 2 - Input-Process-Output Model (King, 1988) 23

Figure 3 - Lederer and Salmela Model (Salmela et al., 1996) 23

Figure 4 - IS Strategy and Planning Process - Phases and Stages (Mentzas, 1997) 24

Figure 5 - Model for IS Strategy and Planning process (King, 2009) 25

Figure 6 - Key themes of Strategy as Practice (Morton et al., 2022) 26

Figure 7 - Strategic Alignment Model (SAM) (Henderson and Venkatraman, 1993) 39

Figure 8 - Preliminary Conceptual Framework 60

Figure 9 - ESB Networks' Strategic Framework 114

Figure 10 - Powering Ahead Programme Phases 115

Figure 11 - Powering Ahead Programme Phases and Deliverables 115

Figure 12 - Futures View Phase Approach Summary 117

Figure 13 - Outside-In Phase Approach Summary 118

Figure 14 - "Inside-Out" Phase Approach Summary 119

Figure 15 - "Mobilise" Phase Approach Summary 120

Figure 16 - Outcome Summary of Mobilisation and Visioning Phase 122

Figure 17 - Programme Vision 124

Figure 18 - Programme Principles 124

Figure 19 - Value Framework 124

Figure 20 - Value Framework Stages 124

Figure 21 - Programme Organisation Structure 125

Figure 22 - Transformation Roadmap – Outline 126

Figure 23 - Transformation Roadmap - Outline (Alternative View) 126

Figure 24 - Theme Definition 126

Figure 25 - Theme Based Principles 127

Figure 26 - Experience Blueprints 127

Figure 27 - Theme Based Value Case and Value Framework 128

Figure 28 - Delivery Planning Summary....128
Figure 29 - User Journeys (As-Is and To-Be)....130
Figure 30 - Epics definition and Service Blueprint....131
Figure 31 - Prioritisation Results Summary....132
Figure 32 - Experiences Summary and Prioritisation Assessment Framework....131
Figure 33 - High Level Solution Architecture....132
Figure 34 - Solution Platforms....132
Figure 35 - Detailed Delivery Plan and Product Roadmap....134
Figure 36 - Gas Networks Ireland's Strategic Framework....147
Figure 37 - Phases of GNI Application Strategy Development Project....148
Figure 38 - Deliverables per each Phase for GNI Application Strategy Development Project....149
Figure 39 - Project Plan for GNI Application Strategy Development Project....149
Figure 40 - Total Cost of Ownership Analysis....152
Figure 41 - Application Architecture - As Is....152
Figure 42 - Cost Analysis for the Application Landscape....152
Figure 43 - Application Landscape Analysis Summary....152
Figure 44 - Future Business Needs Analysis....153
Figure 45 - Application Analysis for Gas Management Future Challenges....153
Figure 46 - Initial set of Opportunities/Initiatives for Strategy Design tasks in To-Be Architecture and RoadMap....154
Figure 47 - Application Analysis Examples for Deep-Dive Sessions....155
Figure 48 - Initiative Outline (as an Output of the Deep-Dive Sessions)....156
Figure 49 - Application Architecture – To-Be....157
Figure 50 - Key Strategic Themes for the GNI Application Strategy....158
Figure 51 - Strategic Recommendations presented to the GNI Senior Management team....158
Figure 52 - Example of a Detailed Business Case....160
Figure 53 - Business Case Summary....161
Figure 54 - Implementation Roadmap....161
Figure 55 - Context and Overview - Executive Summary....162
Figure 56 - Simplified Target View - Executive Summary....162

Figure 57 - Sample Recommendation - Executive Summary 162

Figure 58 - Final Wrap-Up - Executive Summary 162

Figure 59 - Water Services Strategic Plan 2050 172

Figure 60 - Phases of Uisce Éireann IT Strategy Development Project 174

Figure 61 - Plan on a Page - Deliverables per each Phase for UÉ ICT Strategy Development Project 174

Figure 62 - Sample Extract - Mapping Table of Business Strategy into Key Strategic Dimensions (Target Customer Outcomes) 176

Figure 63 - Sample Extract - Inventory and Mapping of Key Take-Aways from VoC Sessions into Key Strategic Dimensions (Target Customer Outcomes) 178

Figure 64 - Key Strategic Dimensions (Target Customer Outcomes) 179

Figure 65 - Outcome of External Market Analysis 180

Figure 66 - Sample Extract - IT Capability Domain Definition and Mapping 181

Figure 67 - Role of IT and Ambitions of IT Function 182

Figure 68 - Uisce Éireann ICT Strategy on a Page 184

Figure 69 - Definition of ICT Sub-Strategies 185

Figure 70 - Current State Analysis 187

Figure 71 - External Market Analysis 188

Figure 72 - Desired State Definition 189

Figure 73 - Mapping of Sub-Strategy and ICT Capabilities 190

Figure 74 - Definition of Initiatives 191

Figure 75 - ICT Sub-Strategy - Principles 192

Figure 76 - Prioritisation of Initiatives 193

Figure 77 - Initiatives Delivery Roadmap 194

Figure 78 - Background and Context 195

Figure 79 - Executive Summary 195

Figure 80 - Strategy on a Page 196

Figure 81 - Static Conceptual View of Strategic Alignment Process Framework - Phases, Stages and IS Artefacts 215

Figure 82 - Proposed Theoretical Framework for Creating and Sustaining Strategic Alignment through Executive Engagement 217

Figure 83 - Static Conceptual View of Strategic Alignment Process Framework - Phases, Stages and IS Artefacts 221

Figure 84 - Strategic Alignment as a Mediator between Business and IS across strategy development, execution and operations. 223

Figure 85 - Strategic Alignment as a Lifecycle Loop 226

Figure 86 - Executive Engagement Across Phases and Stages of Strategic Alignment Process 232

Figure 87 - The Progress of Theoretical Coding from Concepts to Theory (Inputs Provided by Executive Managers) 238

Figure 88 - The Progress of Theoretical Coding from Concepts to Theory (Outputs Gained by Executive Managers) 239

Figure 89 - Strategic Enablement Cycle 256

Figure 90 - The Progress of Theoretical Coding from Concepts to Theory (Outputs Gained by Executive Managers) 257

Figure 91 - Strategic Empowerment Cycle 267

Figure 92 - Mechanisms in Strategic Alignment process enacted by the Engagement with Executive Managers 270

Figure 93 - Reflections on the Preliminary Conceptual Framework (Based on Reich and Benbasat (2000) and Jenkin et al. (2019)) 274

Figure 94 - An Integrated Theoretical Framework for Creating and Sustaining Strategic Alignment through Executive Engagement 277

Figure 95 - Reinforcing Dynamics of Intellectual, Financial, Social and Operational Alignment types 308

Figure 96 - Common Models of Strategic Alignment in the Literature 325

Figure 97 - Theoretical Contribution - Integrated Strategic Alignment Model 326

Acronyms

CSO	Case Study Organisation
DCV	Dynamic Capabilities View
DT	Digital Transformation
EA	Enterprise Architecture
ESBN	Electricity Supply Board Networks
GNI	Gas Networks Ireland
ICT	Information and Communications Technologies
IS	Information Systems[1]
ISSP	Information Systems Strategy and Planning
IT	Information Technology
MIS	Management Information Systems
RBV	Resource Based View
SA	Strategic Alignment
SAM	Strategic Alignment Model
SISP	Strategic Information Systems Planning
UÉ	Uisce Éireann (Irish Water)

[1] The Researcher has observed that there have been a wide range of terms utilised to describe *Information Systems* (IS) in the literature (e.g. information technology, transaction processing, information processing, management information systems, material resource planning, enterprise resource planning, customer relationship management systems, cognitive solutions, digital systems, systems of record, expert systems, decision support systems, systems of insight, business intelligence, digital, mobile, systems of engagement, artificial intelligence, ecommerce applications, blockchain, middleware application, service oriented architecture.) Researcher will adapt *IS* term throughout this thesis to avoid ambiguity in relation to the multiple terms that has been surfaced during the literature review conducted for this thesis.

1 Introduction

This research is situated within the strategic alignment (SA) domain, which in turn is one of the key central themes within the information systems (IS) strategy domain. Gable (2020) considers IS research within three main domains, IS Strategy, IS Adoption and Diffusion, and IS Disciplinary Foundations. The scope of this research falls under IS Strategy domain and specifically focuses on Strategic use of IS that contains two interconnected core conceptions for Strategic Alignment and IS Strategy and Planning.

Technological advancements in the second half of 20th century has led to the evolution of Information Systems' (IS) role from recording and processing transactional data to a key competitive advantage component and a significant prerequisite for productivity, performance and predictability. The academic literature have consistently indicated that strategic alignment between business strategy and IS strategy is a pervasive problem, and further research on aligning business and IS strategies, processes and people is valuable (Gerow et al., 2014; Gerow, 2020).

The questions around "Why alignment is important" and "How alignment impacts organisation performance" are well researched and answered in the extant literature that have been accumulated over the last half century. Literature has reached a common ground on strategic alignment in relation to its antecedents, inhibitors and enablers of strategic alignment that also clarifies the impediments and prohibitors to strategic alignment. It was empirically proven that creating and sustaining strategic alignment allows organisations to be more competitive and profitable (Papp, 1999; Coltman et al., 2015; Tallon et al., 2016; Queiroz, et al., 2020); improve general business performance (Woolridge and Floyd, 1990; Chan et al., 1997; Byrd et al., 2006; Coltman et al., 2015; Tai et al. 2019); increase business value realised from IS investments (Gerow et al., 2014; Sabherwal et al., 2019).

However, the question of "How alignment is created and sustained" is still a major concern for business executives as how to formulate an appropriate IS strategy in support of, or lead business strategy has been a great challenge for organisations and Executive Managers (Sabherwal and Chan, 2001, Peters, Heng and Vet, 2002; Johnson and Lederer, 2010; Merali, Papadopoulos and Nadkarni, 2012; Moon, Choi and

Armstrong, 2018; Teubner and Stockhinger, 2020). The question of why we still haven't mastered alignment (Chan, 2001; Chan and Reich, 2007a; Chan et al., 2021) is still unanswered while strategic alignment has been consistently reported to be one of the top 2 key issues for IS executives for decades (Kappelman et al., 2022; Johnson et al., 2025) and organisations continue to spend between 1.2% and 6.9% (Gartner, 2024), and an average of 5.7% (Johnson et al., 2025) of their business revenue and between 1.5% and 10.3% (Gartner, 2024) of their total expenditure on IS.

This chapter provides an overall introduction to the thesis. Section 1.1 outlines the objective of the research and Section 1.2 introduces the research question, and intended contribution of the research is summarised in Section 1.3. A synopsis of the Researcher's personal motivation for undertaking the research is presented in section 1.4. In Section 1.5, a high-level diagrammatic presentation portrays the structure of the thesis, followed by an overview of the central focus of each chapter, and the chapter is drawn to a conclusion in Section 1.6.

1.1 Objective of the Research

Strategic alignment between business and IS has been a central theme in the IS discipline for several decades. Since the late 1980s, scholars have used a variety of terms to describe this concept, including fit (Venkatraman, 1989), harmony (Luftman et al., 1993), linkage (Henderson and Venkatraman, 1990), bricolage (Ciborra, 1996), bridge (Ciborra, 1997), integration (Weill and Broadbent, 1998), and more recently fusion (Smaczny, 2001; Bharadwaj et al., 2013; Teubner and Stockhinger, 2020). This diversity of terminology reflects the complexity of the phenomenon and the evolving role of IS in organisations.

Strategic alignment is commonly defined as the degree to which the IS mission, objectives, and plans support and are supported by the business mission, objectives, and plans (Reich and Benbasat, 1996). Subsequent research has elaborated this concept into three interrelated dimensions: intellectual (or strategic) alignment, which concerns the consistency between business and IS strategies; operational alignment, which focuses on the linkages between organisational and IS infrastructures and processes; and social alignment, which refers to the shared understanding and commitment between business

and IS executives (Henderson and Venkatraman, 1999; Reich and Benbasat, 2000; Gerow et al., 2015). While intellectual and operational alignment have received considerable attention, the social dimension remains under-theorised and difficult to operationalise, despite its recognised importance in enabling the other two dimensions.

The term “engagement” is frequently used in the strategic alignment literature to capture aspects of participation, communication, collaboration, and trust between business and IS stakeholders (Reich and Benbasat, 2000; Karahanna and Preston, 2013; Gerow, 2020). However, there is no commonly accepted definition or framework for engagement, and empirical studies examining how engagement unfolds in practice are limited. Prior research suggests that poor social alignment can hinder the achievement of intellectual alignment, and that strong engagement is associated with higher levels of social capital and more effective positioning of IS within the organisation (Gerow et al., 2016). Yet, it remains unclear how engagement should be structured, what mechanisms facilitate it, and how it interacts with alignment activities across different phases of strategy work.

In parallel, the IS strategy literature has tended to emphasise process and context over content. While organisational strategy research has long examined the substance of strategy (Pettigrew and Whipp, 1992), IS strategy studies rarely specify what an IS strategy should contain to enable alignment. This lack of attention to artefact content creates a practical gap, and organisations often struggle to define the outputs of alignment work in a way that supports decision-making and governance. Addressing this gap requires a clearer understanding of the artefacts produced during alignment, their structure, and their role in facilitating engagement and shared understanding.

Despite extensive research, we do not yet understand *how* strategic alignment is enacted in practice, specifically the phases, stages, IS artefacts, and nature of executive engagement through which alignment is created and sustained. This absence of granular process and content knowledge limits both theoretical development and practical guidance. This research aims to address this gap by investigating how strategic alignment between business and IS strategies is created and sustained, with a particular focus on the phases and stages of strategic alignment work, the artefacts produced, and the nature of engagement with Executive Managers. The objectives of this research are:

- Identify the process - comprising phases and stages - through which alignment work unfolds,
- Specify the alignment-related activities associated with each phase and stage,
- Define the content outlines of key alignment artefacts that operationalise these activities, and
- Analyse the approach and nature of engagement with Executive Managers across the phases and stages of the strategic alignment process.

1.2 Research Question

This research aims to explore how Executive Managers engage with creating and sustaining strategic alignment between business and IS strategies by, firstly, identifying the phases and stages of strategic alignment work as it unfolds over time, secondly, by identifying specific alignment related activities (including the definition of key artefacts' (i.e. outputs/documents) content outline) that are executed in each phase/stage and, thirdly, by analysing the approach and nature of the engagement with Executive Managers governing the identified strategic alignment activities during the respective phases/stages.

This research study is not about any rational interventions and decisive choices made by Executive Managers, but rather of the actions, interactions and insights provided by Executive Managers in the process of strategic alignment between business strategy and IS strategy. Therefore, the main research question and underlying sub-questions for this research are outlined below.

Table 1 - Research Question and Sub-Questions

Research Question	How do executive managers engage with creating and sustaining strategic alignment between Business Strategy and Information Systems Strategy over time?
Sub-Questions	▪ What are the phases/stages of IS strategic alignment work as they unfold over time? ▪ What specific alignment work sits within each phase/stage? ▪ How are executive managers engaged in each phase and what is the nature of that engagement?

1.3 Research Contribution

Despite significant theoretical advancements in the strategic alignment domain over the past half-century, the literature still lacks detailed, actionable definitions of the strategic alignment process. While co-evolutionary perspectives (Ciborra, 1997; Peppard and Breu, 2003; Benbya and McKelvey, 2006; Amarilli et al., 2023; Benbya, Leidner and Preston, 2023) represent important conceptual progress, they remain largely theoretical and offer limited practical guidance on how alignment is enacted in organisational settings. Specifically, they do not clearly explain how alignment unfolds, how Executive Managers participate, or which artefacts and activities are essential to effective alignment work.

This lack of definitional clarity constrains the practical applicability of existing frameworks and leaves a gap in understanding how alignment is built, sustained, and adjusted in context. Scholars have consistently called for a shift from static models of "fit" toward dynamic, explanatory accounts of alignment work (Chan and Reich, 2007a; Hiekkanen et al., 2013; Luftman et al., 2017; Dairo et al., 2021; Őri and Szabó, 2024; Pelletier and Raymond, 2024). They urge researchers to open the black box of practice by examining what actors actually do (Karpovsky & Galliers, 2015; Moeini et al., 2019; Hughes and McDonagh, 2021) and to explore the socio-technical mechanisms that

underpin alignment dynamics (Merali et al., 2012; Gerow et al., 2014; Jenkin et al., 2019; Amarilli et al., 2023).

Executive involvement has long been recognised as a critical factor in strategic alignment (Reich and Benbasat, 2000; Preston and Karahanna, 2009b; Gerow et al., 2014; Luftman, 2015), with evidence showing that managerial interactions significantly influence alignment outcomes (Jenkin et al., 2019). The strategic alignment process operates within the framework of Stakeholder Theory (Donaldson and Preston, 1995; Chan et al., 2007; Marabelli and Galliers, 2017; Gerow et al., 2020), which underscores the importance of engaging Executive Managers as key actors. Although the field has progressed considerably since the foundational work of Henderson and Venkatraman (1993), several critical questions remain underexplored - particularly those concerning the practical execution of alignment and the role of executive engagement in shaping alignment outcomes.

The table below outlines the sub-questions that support the main research question posed in this thesis - “How do executive managers engage with creating and sustaining strategic alignment between Business Strategy and Information Systems Strategy over time?” - and highlights the current gaps in the literature that motivate this research study.

Table 2 - Research Sub-Questions and Identified Gaps in the Literature

Research Sub-Questions	**Gaps Identified in the Literature**
What are the phases/stages of IS strategic alignment work as they unfold over time?	What is known about strategic alignment so far still lack actionable conclusions that would provide managers ways to achieve or improve alignment (Luftman et al., 2017). Dairo et al. (2021) reinforce this critique through an empirical study and their findings highlight the absence of artefact-level detail and structured process models in existing frameworks, and call for improved understanding of how alignment is implemented, not just theorised. Recent systematic reviews (Őri & Szabó, 2024) confirm that while models like SAM are widely cited, they have not evolved to include granular process steps or artefact definitions, leaving a gap in operational guidance. These recent critiques echoes the scholars who called for strategic alignment research to explore a more holistic treatment of alignment at multiple organisational levels and across multiple dimensions (Chan and Reich, 2007a; Moeini et al., 2019), and to drive research on the activities of aligning where actors do "aligning" (Karpovsky and Galliers, 2015; Moeini et al., 2019; Hughes and McDonagh, 2021).
What specific alignment work sits within each phase/stage?	
How are executive managers engaged in each phase and what is the nature of that engagement?	Jenkins et al. (2019) offers a rich conceptualisation of stakeholder engagement - in terms of depth, scope, and timing conceptions - as reflecting the nature of stakeholders and their interactions. Engagement with Executive Managers involves multi-directional flows of information, frequent interactions, and close proximity to both sense-making and sense-giving. The underlying dynamics within the strategic alignment discourse unfold over time and should be examined in terms of their content and context, grounded in data and process-oriented research perspective (Van de Ven 2007; Pettigrew, 2012; Sminia, 2015). Engagement with Executive Managers influences social alignment and there are several empirical studies (Reich and Benbasat, 2000; Alaceva and Rusu, 2015; Gerow, 2020) indicating the positive relationships across social and intellectual alignment and possibly with operational alignment (Gerow et al., 2016); however the gap in the literature is situated at the centre of this engagement driven by the lack of detail on the nature and attributes of the executive engagement outlining its inputs and outputs (i.e. what exactly executives provide, contribute or do, and what they achieve or receive in return, if any) of the engagement process.

The justification for pursuing processual research on strategic alignment lies in advancing the research agenda by addressing persistent gaps in the literature. Despite extensive studies on strategic alignment, limited attention has been paid to the nature of engagement with Executive Managers and the cognitive, relational, and cultural linkages between business and IS stakeholders (Schlosser, Wagner and Coltman, 2012; Alaceva and Rusu, 2015). These motivations point to the need for a coherent conceptual lens through which the strategic alignment process, IS artefacts of alignment and executive engagement can be examined. Chapter 2 develops this lens and presents the conceptual framework that informs the empirical work as outlined in Section 2.5 of this thesis.

This research responds to continued calls for longitudinal and processual inquiry by offering a process-oriented view of strategic alignment. It focuses on two major gaps:

- The lack of detailed insights into the phases and stages of the alignment process, including the associated activities and key artefacts (i.e., outputs/documents) that operationalise alignment work, and
- The underexplored nature of Executive Manager engagement during IS strategy development and execution, including their contributions and outcomes.

The following table outlines the novel contributions developed as part of this thesis.

Table 3 - Research Contributions

Contribution Type	High Level Summary of Contributions
Theoretical	Primary: Operationalises alignment via a Strategic Alignment Process Framework; reframes alignment with Strategic Alignment Lifecycle Loop; specifies the Executive Manager Engagement Cycle. Secondary: Proposes Financial Alignment as a distinct alignment type; explicit theorisation of the reciprocal, bidirectional feedbacks among alignment types.
Empirical	Provides rare, multi-case, longitudinal evidence from three Irish energy network utility organisations, offering thick descriptions of strategic alignment work, IS artefacts and executive engagement in a regulated domain.
Methodological	Demonstrates an artefact-centred, processual strategy (narrative strategy, process tracing, thematic analysis and grounded theory strategy) to build mid-range process theory.
Practical	Offers actionable templates (phases, stages, IS artefacts) for strategic alignment process and an executive engagement playbook that can be adapted by practitioners.

The research contributes to both theory and practice and proposes a novel theoretical framework for strategic alignment.

1.4 Personal Motivation for the Research

Growing up in a family of academics, I was exposed to the value of education and research from a young age. My father was an academician, and my brother followed in his footsteps. Although I chose to pursue a career in consulting after graduating from university, I always felt a strong connection to the academic world. As I progressed in my consulting career, I realised that continuous learning and professional development were essential to success in the field. This led me to pursue my master's degree, which I completed four years after starting my career.

Over the next 15 years, I continued to work in the consulting industry, got married, and started a family. As my work-life balance improved, I began to reflect on my choices and wonder about the "road not taken". I started to think about pursuing a PhD, not just for personal fulfilment but also to transition into a potential teaching career in the future. This desire to teach and share my knowledge with the next generation has been a driving force throughout my PhD journey.

Given my professional background in technology strategy and complex systems integration engagements, I was naturally drawn to the IS domain. As I delved deeper into the literature, I noticed a few gaps between academic theory and practical application of it in the field and read about the debates on relevance of IS research in the literature. My experience in delivering technology strategy engagements led me to focus on strategic alignment to deepen my insights and knowledge with the extant literature, and I developed my research question and approach to address this gap. I aim to contribute theoretical, empirical and practical insights to the field, bridging the divide between academia and practice.

As I near the completion of my thesis at the age of 50, with over 25 years of industry experience, I continue to reflect on my motivations and goals. I still aspire to transition into teaching and sharing my knowledge with next generation. This research has not only been a personal journey but also a professional one, allowing me to combine my experience and expertise to make a meaningful contribution to the field.

1.5 Structure of the Thesis

This section describes the thesis structure which consists of seven chapters. Each chapter is supported, when appropriate, with appendices, lists of abbreviations, tables and figures, and a bibliography. A broad outline of the thesis, ordered by chapter sequence, is presented in the diagram below.

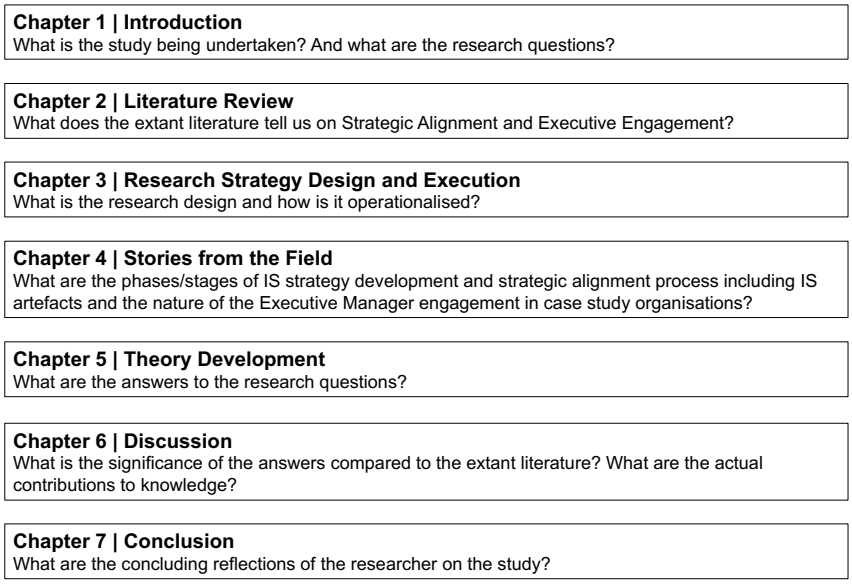


Figure 1 - Structure of the Thesis

The structure was organised to present a coherent approach to the investigation. The thesis is logically ordered to provide the reader with a clear understanding about how the choices and conclusions accruing from the research study were made. Brief summary of each chapter is outlined below;

- **Chapter 1 | Introduction** – establishes the foundation and motivation for the research by critically examining the strategic alignment literature. It highlights the conceptual ambiguity surrounding executive engagement and the lack of focus on IS artefacts and strategy content. By identifying these gaps, the section justifies the need for a process-oriented investigation into strategic alignment and executive involvement. It positions the research as a response to both academic and practical challenges, offering a framework to explore how strategic alignment is created and sustained through executive engagement.
- **Chapter 2 | Literature Review** – establishes the theoretical foundation of the research by critically examining existing studies on strategic alignment, IS strategy, and executive engagement. It identifies conceptual gaps, such as the underrepresentation of IS artefacts and the lack of clarity around strategic alignment process and executive engagement. This section adds value by positioning the research within the broader academic discourse, justifying the need for a process-oriented and engagement-focused investigation, and highlighting where new contributions can be made.

- **Chapter 3 | Research Strategy and Design Execution** – outlines the research design, data collection, and analysis strategies used to investigate strategic alignment episodes. It adds value by demonstrating the rigour and transparency of the research process, particularly through the use of grounded theory strategy and thematic analysis. This section supports the credibility of the findings and ensures that the research is replicable, valid, and aligned with qualitative research standards.
- **Chapter 4 | Stories from the Field** – provides the empirical foundation for the research by presenting real-world strategic alignment episodes across three network utility organisations in Ireland. It adds value by contextualising the research within complex organisational environments, enabling the identification of process, patterns, artefacts, and engagement dynamics. This section supports the development of grounded insights and ensures that the findings are both relevant and applicable to practice. It strengthens the credibility of the research by anchoring theoretical exploration in rich and field-based evidence.
- **Chapter 5 | Theory Development** – presents the empirical insights derived from the analysis of strategic alignment episodes across the case study organisations. This chapter introduces Strategic Alignment Process Framework, Executive Manager Engagement Cycle and Strategic Alignment Lifecycle Loop and underlying intervening mechanisms, and proposes Financial Alignment as a distinct alignment type. It adds value by translating complex engagement dynamics into structured themes and categories, revealing what Executive Managers provide and gain as a result of their engagement with the strategic alignment process. This section bridges the gap between theory and practice, offering evidence-based understanding of strategic alignment process, IS artefacts, and nature of the Executive Manager engagement.
- **Chapter 6 | Discussion** – interprets the findings in relation to existing literature and theoretical frameworks. It adds value by contextualising the empirical results, highlighting their implications for strategic alignment literature, and offering new perspectives on strategic alignment discourse and nature of engagement with Executive Managers. This section deepens the academic

contribution of the research by connecting observed practices to conceptual models and identifying areas for future inquiry.

- **Chapter 7 | Conclusion** – synthesises the research findings and reflects on how the study has addressed its objectives. It adds value by consolidating theoretical and practical insights, particularly around strategic alignment process and the nature of Executive Manager engagement. This section reinforces the contribution of the research to the strategic alignment literature, highlights implications for practice, and outlines avenues for future research. It demonstrates the coherence and impact of the research study, providing closure and clarity on its significance.

1.6 Conclusion

This chapter provided the background, objective for the research and introduced its laser sharp focus by means of outlining the research question. The Researcher outlined his personal motivation for undertaking the study. The chapter then proceeded to offer a high-level diagrammatic presentation of the thesis outlining central focus of each chapter.

This thesis provides an empirically grounded, artefact-centred, multi-phase process model of how Executive Managers engage in creating and sustaining strategic alignment in complex organisational settings.

The remainder of the thesis proceeds as follows. Chapter 2 synthesises the IS Strategy and Planning and Strategic Alignment literature and surfaces the specific gaps this study addresses. Chapter 3 outlines the research paradigm, methodology, methods used in the research and provides detailed information on the execution of research design to support repeatability of this research. Chapter 4 presents the case narratives and artefacts as the book of evidence. Chapter 5 moves from description to theory development, introducing the Strategic Alignment Process Framework, Strategic Alignment Lifecycle Loop, Executive Manager Engagement Cycle and Financial Alignment. Chapter 6 discusses how these contributions extend prior work. Chapter 7 concludes with implications, limitations and directions for future research.

2 Literature Review

Eisenhardt and Graebner (2007) state that "sound empirical research begins with strong grounding in related literature, identifies a research gap, and proposes research questions that address the gap" (p. 26). This chapter provides a structured review of the literature on IS strategy and planning, strategic alignment and engagement with Executive Managers. It highlights both the established foundations and the unresolved gaps that constrain current understanding. By foregrounding these gaps at the outset, the chapter prepares the rationale for the conceptual framework introduced later and positions the study within the wider academic discourse.

This chapter aims to demonstrate three critical shortcomings in the existing literature. First, while strategic alignment is widely studied, the literature provides limited insight into the strategic alignment process (including phases and stages) through which alignment is enacted in organisational practice. Second, existing models give insufficient attention to the mediating role of IS artefacts, despite their centrality in sensemaking, decision-making and cross-functional negotiation. Third, although executive manager involvement in strategic alignment is consistently recognised as critically important, there is no robust theorisation of how Executive Managers engage across the strategic alignment process, the modes of engagement they employ, or the dynamics through which their involvement shapes outcomes. By making these gaps explicit at the outset, the chapter sets a clear analytical direction for the development of the conceptual framework and the empirical investigation that follows.

This chapter is structured as follows; Section 2.1 provides a brief overview on the roots of IS and strategy related research, and Section 2.2 introduces IS Strategy and Planning literature including a process and practice view. A critical review of strategic alignment literature and its linkage to IS Strategy and Planning literature is presented in Section 2.3 reflecting its roots in strategic management literature and its evolution into IS domain including a summary of the critique of the strategic alignment literature. Section 2.4 includes the review of literature on engagement with Executive Managers in strategic alignment. The Researcher outlines preliminary conceptual framework for this research in Section 2.5 and the chapter is drawn to a conclusion in Section 2.6.

2.1 Overture

The journey of academic progression has been full of challenges for researchers as IS has become more complex and its impact has become significantly influential and prevalent since the early days of data processing in 1950s. IS have experienced extensive changes throughout its history, and this will likely to continue in the foreseeable future (Galliers and Currie, 2011) while impacting societal and organisational renewal and change (Baskerville and Myers, 2002; Kebede, 2010). IS has changed the way companies operate, and it generated more data as companies perform their activities and has allowed it to collect, capture, analyse information and generate insights that had not been available before (Porter and Millar, 1985). This change has attracted a higher level of top management attention (Rockart 1979; Lederer and Mendelow 1989; Ginsberg and Venkatraman 1992; Johnson et al., 2025) and has led IS function to get out of the server room, and enter into the boardroom in the organisational hierarchy (Raghunathan and Raghunathan 1989).

This section provides a brief overview on the roots of information systems and strategy related research. Appendix 2 of this thesis also provides an outline of the approach taken to conduct the literature review for this thesis during the course of the research period.

2.1.1 Information Systems

Computers, as systems of record (Moore, 2011), have started to be used commercially since the 1950s (Davis, 2000; Hirschheim and Klein, 2012). The attempts to include technological considerations within the framework of business strategy research started in 1970s (Kantrow, 1980), and an integrated framework for viewing a company's technology within the context of its general business orientation was introduced by seminal articles of Prahalad in 1973 and Rosenbloom in 1978. It was from 1960s to late 1980s period when mainframe computing was the standard way things were done. During that period, IS was perceived as the ‘‘biggest technological revolution men have known’’ (Snow, 1966, p. 650; Afflerbach, 2015). It would be an

understatement to repeat the same at the end of the first quarter of the twenty-first century in line with the continuous advancement of IS.

Ease of measurement, economic pressure and the acceptability of programming by the present jobholder were identified as three key factors impacting the success of the technology in the seminal article by Leavitt and Whistler (1958), where the authors also introduced the term “information technology” first time in a scholar text. Authors also suggested the advent of the computer and management science would significantly change the structure and processes of most corporations. In addition to their initial predictions, Leavitt and Whistler also foresaw a significant shift in the roles of top executives and other corporate personnel with the advent of new technology. Although Scott Morton and Rockart (1983) argued that this prediction did not come to fruition in the 1980s, subsequent advancements in technology and its widespread adoption in organisations have ultimately validated Leavitt and Whistler's prediction.

Over time, the nature and terminology have changed from “data processing” or “transaction processing” to “management information” and then to “information processing” (Grover et al., 2016; Somogyi and Galliers, 1987). It was only a decade later in 1960s that the eclectic academic enterprise of IS started being formulated (Grover, 2016), and resulted in the early academic literature on IS planning and strategy by the studies of Kriebel in 1968, and McFarlan in 1971. During the 1980s, the academic research on computer science, management science, and behavioural science had become referents for IS (Hirschheim and Klein, 1989).

Davis (2000) defines information system or management information system of an organisation as an “amalgamation of the information technology infrastructure, application systems, and personnel that employ information technology to deliver information and communications services for transaction processing/operations and administration management of an organisation by applying a combination of automation, human actions, and user-machine interaction” (p. 67). Over the years, IS domain’s intellectual landscape has evolved by borrowing (adapting) theories from other disciples (Moeini et al., 2020).

2.1.2 Strategy

The word “strategy” (strategus in Latin, meaning “the art of the army general”) defined as “a detailed plan for achieving success in situations such as war, politics, business, industry, or sport, or the skill of planning for such situations” according to the Cambridge Dictionary (2020). While the term “strategy” is treated diversely for different purposes, the concept of “strategy” within academic literature is interpreted in different ways and without a consistent definition due to the rapid growth of the strategic management literature since 1950s. Although there are over 90 different definitions for “strategy” (Ronda-Pupo and Guerras-Martin, 2012), strategy is defined as a rule for making decisions under conditions, and business strategy is defined as a broad collection of decision rules and guidelines defining scope and direction (Ansoff, 1965). The process of strategy formulation is the interpretation of environment and the development of consistent patterns in the streams of business decisions (Mintzberg, 1979).

In strategic management literature, strategy is defined as a set of management decisions regarding how (through choice of industry, firm configuration, resource investments, pricing tactics, and scope decisions) to balance the firm's trade-offs driven by productivity (reducing cost) and performance (creating and capturing value) to achieve its objectives (Drucker 1954, 1966; Williamson 1988). Strategies can be intended (deliberate) or realised (emergent) and can be conceived as two ends of a continuum along which real-world strategies lie (Mintzberg 1978, 1985). Rumelt (1979) articulates the concept of strategy as a descriptive idea that outlines an organisation's choice of niche and its primary decision rules to operate and survive in order to cope with that niche. Porter (1980) defines strategy as a broad-based formula to relate a company to its environment by identifying how business will compete, what goals it will achieve and what policies will be needed for success in achieving those goals.

Many scholars define strategy as a plan, or a consciously intended course of action. Strategy is also considered as a pattern, driving consistent in behaviours over time (intended or not intended), into a stream of actions (Mintzberg, 1987) and decisions that represent intention (Mintzberg and Waters, 1985). Some experts treat it as a position, as strategy becomes the mediating force (Mintzberg, 1987) or match between organisation

(internal context) and environment (external context) (Hofer and Schendel, 1978). Porter (1980, 1985) and his followers see strategy as position, that is the determination of specific products in certain markets, which means organisations should perform different activities to their rivals, based on their own 'position'. Drucker (1974) claims strategy can be a perspective in other words, the organisation's way of doing business - therefore, strategy can be how organisations view business. The relationship between an individual and its personality is same as the relationship between an organisation and its strategy (Mintzberg, 1987), however the time period to establish or change would take much more shorter time periods.

Conceptualising and defining strategy in a mutually exclusive or inclusive as a plan, ploy, pattern, perspective or position enriches our understanding (Mintzberg, 1987). The strategy and the process that it is formulated is a dynamic concept, as the realised strategy of an organisation is a result of convergence between its intended strategy and emergent strategy (Mintzberg and Waters, 1985). Pettigrew's Triangle (Pettigrew, 1985; Sminia, 2017) introduced three dimensions of strategy as mutually dependant where the "content" is influenced by "process" and "context". He considered the strategy formation as a combination of actions, reactions and interactions between the various stakeholders as they aim to move the organisation from its present state to future state (Pettigrew, 1987). Pettigrew (1992) states that separation between process and content would be considered as artificial due to the missing linkage between the content of change and its context and process. Pettigrew's (1987) use of these three dimensions of strategy as a basis for analysing strategy is useful in enabling aspects of content, context and process to be isolated.

Gable (2020) considers IS research within three main domains; IS Strategy, IS Adoption and Diffusion, and IS Disciplinary Foundations. The scope of this research falls under IS Strategy domain, and specifically focuses on Strategic use of IS that contains two interconnected core conceptions for *IS Strategy and Planning* and *Strategic Alignment*. The following Sections 2.2 and 2.3 will now focus on these key conceptions that the research question is centred on.

2.2 Information Systems Strategy and Planning

In despite of the extant literature in IS strategy and planning domain which started to evolve since 1960s, the terminology in use has been consistently changing. According to Earl (2003), it is widely accepted that an IS plan is essentially an applications development portfolio. Beyond the basic agreement that application systems are at its core, there is some heterogeneity in the interpretation of IS strategy and its content (Ward, 2012). This heterogeneity is evident from the variety of labels used. While some authors speak of "IS strategy" (Galliers, 1991), others call it "IT strategy" (Gottschalk, 1999), while again others use terms such as "strategic information plan" (Salmela et al., 1996), or "information strategy" (Smits et al., 1997). Other terms commonly used includes IS Strategy and planning (ISSP); IT planning; strategic IS planning (SISP); ICT Strategy, IS strategy; Technology Strategy, IT strategy, digital business strategy etc., all being commonly applied over the years (Peppard et al., 2014).

In early 2010s, a new term coined, "Digitalisation" (Bharadwaj et al., 2013) and is described as the "infusion of digital objects (bitstrings[2]) into our processes, tasks, products and services – creating major changes in the conduct of business" (Grover and Sabherwal, 2020, p. 1). There have been several different terms used to define the new terminology for "IS Strategy", these include Digital Strategy, Digital Transformation, Digital Transformation Strategy, Digital Technologies, Digital Systems, Digital Business Strategy. The literature has historically used several terms including IT transformation (Gregory et al., 2018), IT-enabled transformation (Wessel et al., 2021, Piccoli, Grover and Rodriguez, 2024) and IS- enabled transformation (Besson and Rowe, 2012) somewhat interchangeably.

The literature on IS Strategy cumulated over the last 60 years can be summarised via three main conceptions including (a) IS strategy as the use of IS to support business

[2] Researcher notes that this term is old as the mainframe technology, consisting of 0s and 1s.

strategy; (b) IS strategy as the master plan of the IS function; and (c) IS strategy as the shared view of the IS role within the organisation (Chen et al., 2010; Williams et al., 2018). From a practitioner perspective, only the combination of these three conceptions is a workable construct to form the strategy for IS within the organisation.

2.2.1 Evolution of Thinking in Information Systems Strategy and Planning

IS strategy and planning is the process of identifying a portfolio of computer-based applications that will assist an organisation in executing its business plans and consequently realising its business goals (Lederer and Sethi, 1988). Ward and Peppard (2002) considers IS strategy and planning as the definition and prioritisation of investments required to achieve the ideal applications portfolio, quantitative and qualitative benefits expected and the changes required to deliver these benefits within the constraints of resources and system interdependencies.

Galliers et al. (2017) suggests a different perspective on IS strategy, anchored around data and information, and considered IS strategy as a combination of information strategy, information management strategy, information technology strategy and a change management strategy. Banker and Kauffman (2004) envisage that IS researchers would span the boundaries of disciplines as they explore the value created by IS in different activities of a firm or an industry value chain. Bharadwaj et al. (2013) encourages to rethink the role of IS strategy by explicitly linking IS strategy to creating differential business value, thereby elevating the performance implications of IS strategy beyond efficiency and productivity metrics to those that drive competitive advantage and strategic differentiation.

It is important to note that the gap between practitioners and academicians seems to drive the focus of interest in the literature. The extant literature in IS discipline lacks the conceptualisation of IS related artifacts as the scholars have not deeply engaged in their core subject matter (Orlikowski and Iacono, 2001; Moeini et al., 2019). The greater part of the IS strategy literature is focused on normative prescriptions for IS strategy formulation (Walsham and Waema, 1994). There is a low level of focus in the IS strategy literature on what should be contained in an IS strategy. This is in contrast to the reference field of organisational strategy where the strategy content research has tended

to dominate the organisational strategy landscape (Pettigrew, 1992). IS strategy literature puts significantly more emphasis on process and context rather than content.

In early 2010s, a new term emerged in the strategic alignment literature that brought a few previously defined conceptions together to shape the future of the direction for IS strategy and strategic alignment scholars and practitioners. The editorial article in MIS Quarterly by Bharadwaj et al. (2013) can be considered as the cornerstone for the start of "digital strategy" term from a historical perspective. In the article, digital business strategy was defined as an "organisational strategy formulated and executed by leveraging digital resources to create differential value" (p. 472). Sebastian et al. (2017) defines digital business strategy as a "business strategy inspired by the capabilities of powerful, readily accessible technologies, intent on delivering unique, integrated business capabilities in ways that are responsive to constantly changing market conditions" (p. 198).

Digital transformation is defined as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies" (Vial, 2019, p. 118). According to Katzy et al. (2016), digital technology is pervasive and multi-layered and the central arguments of strategic alignment apply to digital technology on the basis that organisational performance depends on structures and capabilities and business and IS strategies can act as mutual drivers for process of continuous adaptation and change. Digital transformation is also defined as the implementation of innovative and digital technologies to achieve business improvements in an organisation (Matt et al., 2015). Kane et al. (2017) suggests that digital transformation focuses on orchestrating organisational collaboration to achieve improved products, services and business models through the leveraging of digital technologies. On the other hand, Chanias et al. (2019) defines "pre-digital organisations" as established companies belonging to traditional industries and threaten by the digital economy. The authors then suggest that the objective of digital transformation strategy is to coordinate, prioritise, implement and govern its journey to achieve the desired future state of being digitally transformed in the long-term (Matt et al., 2015).

During the literature review, the Researcher observed a notable distinction in academic articles addressing digital strategy and transformation. Unlike the historical

evolution of IS literature, which began with the introduction of the term "information technology" (Leavitt and Whistler, 1958) in the 1960s, recent articles on digital strategy and transformation often reference specific types of innovative and digital technologies and positions digital strategy and strategic alignment as a new domain of research. The Researcher interprets the "digital" theme in contemporary strategic alignment literature as a reflection of technological advancements and ongoing IS research, rather than a fundamental shift in the core concept of IS strategy and strategic alignment. Furthermore, the Researcher contends that Leavitt and Whistler's (1958) original definition of information technology adequately encompasses what is now described as the "digital" theme.

2.2.1.1 Process and Practice Perspectives on Strategy

The concept of strategy has been studied and debated by scholars and practitioners for decades and two dominant perspectives have emerged including *Strategy as a Process* and *Strategy as a Practice*. The process perspective views strategy as a linear, deliberate process that involves formal planning, analysis, and decision-making (Mintzberg, 1987). This perspective assumes that strategy is developed by top management and then implemented by others, with a focus on achieving specific goals and objectives (Ansoff, 1965). In contrast, practice perspective sees strategy as a dynamic, iterative process that emerges from the interactions and activities of multiple actors within an organisation (Jarzabkowski et al., 2007).

While Strategy as a Process emphasises the importance of formal planning and analysis, Strategy as a Practice highlights the importance of social and organisational practices in shaping strategic outcomes. The process perspective assumes that strategy is a rational, deliberate process that can be fully planned and controlled, whereas the practice perspective recognizes that strategy is often emergent and adaptive, shaped by the actions and behaviours of employees throughout the organisation (Whittington, 2014). Both perspectives have their strengths and weaknesses, and a balanced understanding of strategy requires considering both the formal planning process and the everyday activities and routines that shape strategic outcomes (Morton et al., 2022). By recognizing the interplay between these two perspectives, organisations can develop a

more nuanced and effective approach to strategy, one that balances deliberate planning with emergent adaptation and innovation (Hutzschenreuter and Kleindienst, 2006). The following two sub-sections will further provide a literature review on these two perspectives.

2.2.1.1.1 Information Systems Strategy as a Process

The advancements in technology has provided multiple capabilities to organisations. Several generations of IS have increased in power and impact over the decades by providing better connectivity (between people, applications and devices), more capacity (distributed storage and processing of data), higher volume, increased speed and reach and range of information transmission, and these capabilities have given rise to the emergence of network forms of organising as processes, information and expertise are shared across organisational boundaries (Merali et al., 2012). Organisations have designed and executed several strategies focused on systems of record, systems of insights and systems of engagement-oriented technology solutions in order to improve their productivity, performance and their capabilities for predictability to build and sustain competitiveness.

In the 1960s and 1970s, early contributions - though largely reactive to business strategy -emphasised that planning for an organisation's information needs was both feasible and essential if IS were to support its fundamental purposes and goals (Evans and Hague, 1962; Kriebel, 1968; McFarlan, 1971; King and Cleland, 1975). These early visionaries framed their discussion around transformation of organisational mission, objectives and strategies into IS strategy sets and draw attention to plan for IS, providing a set of actions on how to go about the task. These works formed the characteristics of IS strategy and planning domain that have persisted since then (Chen et al., 2010; Luftman and Kempaiah, 2008; Merali et al., 2012; Tuebner et al., 2020).

The input-process-output model, initially introduced by King (1988) as an IS planning system that provides a useful building block for synthesis, given its breadth of coverage and the number of times it has been cited since its publication.

King (1988) uses this model to define evaluation points within the overall planning process. Subsequently, a number of studies have used King's model in their research (Salmela et al., 1996; Mentzas, 1997; Segars et al., 1998; Teo and Ang, 1999).

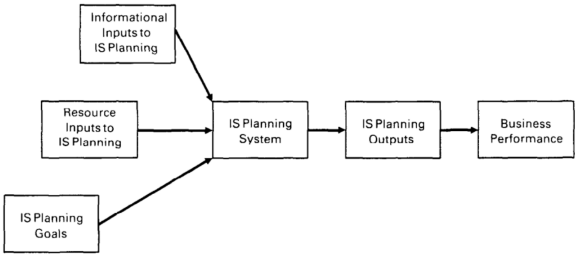


Figure 2 - Input-Process-Output Model (King, 1988)

Earl (1993) suggested that IS strategy and planning activities should include aligning investment in IS with business goals, exploiting IS for competitive advantage, directing efficient and effective management of resources, and developing technology policies and architectures. Salmela et al. (1996) extended King's framework to include a distinction between different components of planning inputs with an intention to provide a comprehensive and meaningful view of the various strands to be found in the literature.

This is achieved by considering the general context of the strategy development process, which includes elements within the organisation's internal environment as well as elements beyond its control (external environment). Other components of the Lederer and Salmela framework include the planning process itself and the 'output' of the process – the information plan: usually a set of recommendations for new IS and linking the plan implementation to alignment between IS plan and business strategy.

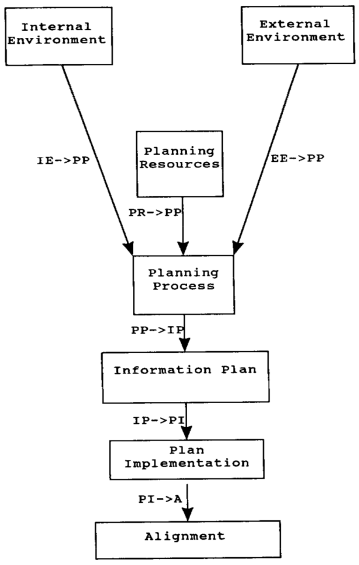


Figure 3 - Lederer and Salmela Model (Salmela et al., 1996)

Mentzas (1997) describes IS strategy and planning process as a plan to link IS strategy with business strategy and towards the provision of an environment for enforcing the participation of managerial staff of the organisation. He grounded them in Thompson's (1993) well-accepted framework in the field of strategic management.

Mentzas (1997) outlines a process flow and activities for IS strategy and planning process with its phases and stages including strategic awareness, situation analysis, strategy conception, strategy formulation, and strategy implementation planning as shown in the figure below.

Phases	Stages	Modules of activities
Strategic Awareness	Identification of strategic goals	Identification of strategic business objectives Identification of strategic IS objectives Identification of planning horizon
	Identification of business and IT systems	Identification of collections of business processes Identification of IT systems (current, planned procurements, contracts, parallel projects etc.) Relevance to the strategic planning process
	Definition of planning process objectives	Determination of functional, technical and organizational detail of the analysis Project organization (roles, committees etc.) Process instantiation (timetable, resources, decision and control points) Production of project plan
Situation Analysis	Analysis of business systems	Analysis of business goals Functional description of business processes Identification of functional inefficiencies Diagnosis of current business processes Identification of business CSFs
	Analysis of organizational systems	Organizational analysis of the corporation Typology of organizational positions Analysis of responsibilities Identification of organizational inefficiencies Diagnosis of current business processes
	Analysis of IT systems	Analysis of IT goals Audit of IT systems and their use Identification of IT inefficiencies Diagnosis of current IT systems (functionality, control, performance, homogeneity, evolution) Identification of IT CSFs
	Analysis of external business environment	Dynamic analysis of external business environment
	Analysis of external IT environment	State-of-the-art in IT Use of IT systems in the industry/sector
Strategy Conception	Scanning of the future	Identification of strategic opportunities Competitive advantage/performance advantage
	Identification of alternative scenarios	Synthesis and structuring of strategic opportunities into coherent scenarios Determination of portfolio of alternative solutions Classification of alternative solutions
	Scenario elaboration	Evaluation of strategic impact of solutions (innovation, market policy, quality etc.) Evaluation of technological impact of solutions (innovation, inter-dependencies, cost etc.) Cross-evaluation of scenarios Determination of (limited number of) scenarios to be formulated
Strategy Formulation	Formulation of business architecture	Description of business processes Creation of business process model (events, triggers, synchronization etc.) Creation of business data model (entities, state transitions, object life-cycle etc.) Refinement of business architecture
	Formulation of IT architecture	Formulation of logical architecture (actors, sites, operations etc.) Formulation of physical architecture (servers, types of communications etc.) Analysis of security and economic issues Refinement of technical architecture
	Formulation of organizational solutions	Analysis of organizational processes Inter-departmental analysis Analysis of data views Distribution of organizational processes
	Synthesis and prioritization	Prioritization of solutions Assessment of compatibility with strategic goals
Strategy Implementation Planning	Definition of action plan elements	Inventory of actions for strategy implementation Study of implementation procedures (budgetary constraints, organization constraints, types of financing etc.) Action prioritization (with reference to strategic importance)
	Elaboration of action plan	Study of each action element (objectives, work breakdown structure, anticipated results etc.) time dimension (constraints, precendencies, control points etc.) Cost dimension (H/W purchase cost, S/W development cost, maintenance cost etc.) Analysis of human resources issues (training, re-organization etc.) IS management and coordination structure Analysis of migration and cut-over aspects Actions to be immediately initiated
	Evaluation of plan	Risk management Coherence with business and organizational aspects Strategic importance (e.g. impact on CSFs) Satisfaction of short-term needs Harmonized integration with organization's evolution
	Definition of follow-up and control procedures	Specification of procedures and indicators for implementation monitoring Specification of cost management process Specification of quality management system

Figure 4 - IS Strategy and Planning Process - Phases and Stages (Mentzas, 1997)

Newkirk, Lederer and Johnson (2008) conducted a survey based quantitative study and found that strategic alignment is highly impacted by strategic awareness and strategy conception, but not for the situation analysis, strategy formulation and strategy implementation planning phases. While this does not understate the importance of the

other planning phases, but signals that enduring effect of wisely beginning the planning efforts (strategic awareness) and the favourable effect of cleverly envisioning the alternatives in strategy conception phase are more critical to achieve strategic alignment as an outcome of the IS strategy and planning process.

King (2009) further enhanced King's (1988) Input-Process-Output Model to reflect various elements that he suggests considering and integrating in a strategic planning process for IS as shown in the figure below.

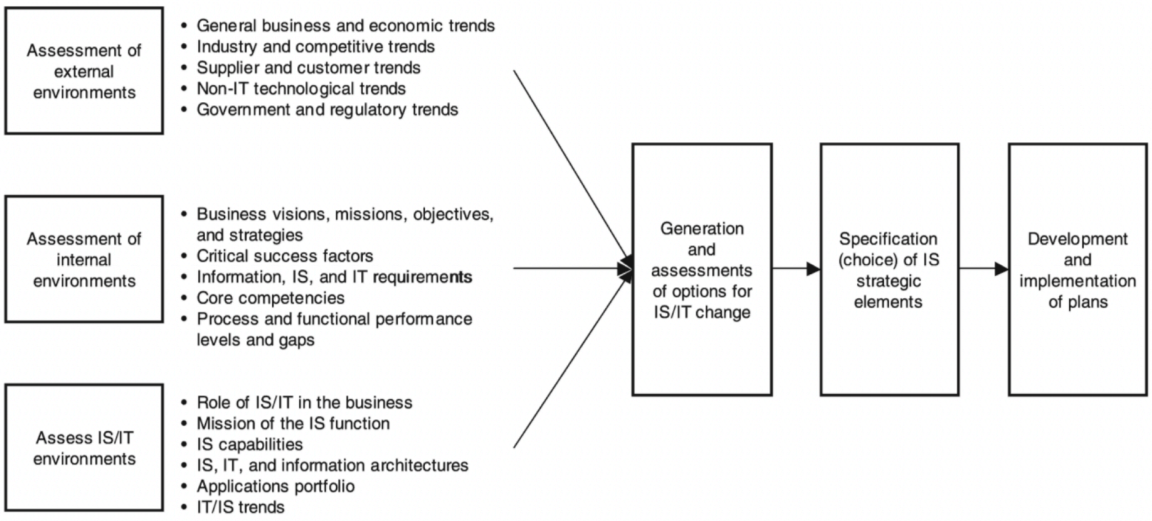


Figure 5 - Model for IS Strategy and Planning process (King, 2009)

IS is widely recognised as fundamental to developing core capabilities of a firm (Itami and Numagami, 1992). While the IS has gained momentum, established a pivotal role within the organisational settings, the need for more effective proactive, innovative and integrated IS strategy and planning has become a significant requirement for IS function (Chen et al., 2010; Merali et al., 2012, Karpovsky and Galliers, 2015; Teubner and Stockhinger, 2020).

2.2.1.1.2 Information Systems Strategy as a Practice

In early 2000s, a new distinctive approach for studying strategic management has emerged - Strategy as Practice (SAP) - covering strategic decision-making, strategising, strategy-making and strategy work (Jarzabkowski et al., 2007; Whittington, 2014). The idea that strategy is not just a plan or a set of decisions, but a set of social and organisational practices that shape the way organisations think and act. Strategy as

practice is an alternative approach to strategy research via its attempt to shift attention away from a sole focus on the effects of strategies on performance alone to a more comprehensive, in-depth analysis of what takes place (including who actually does it, and how they do it) in strategy formulation, planning and implementation and other activities that deal with the thinking and doing of strategy. (Karpovsky and Galliers, 2015; Marabelli and Galliers, 2017; Hughes and McDonagh, 2021).

Morton et al. (2022) defines strategising as a "domain focused on the interplay between digital technologies and people at different levels of organisations in processes that form, transmit, implement, host, and support strategy" (p. 12). The figure below outlines the summary of themes according to the author reflecting three key dimensions (Practices, Practitioners and Praxis) of Strategy as Practice perspective.

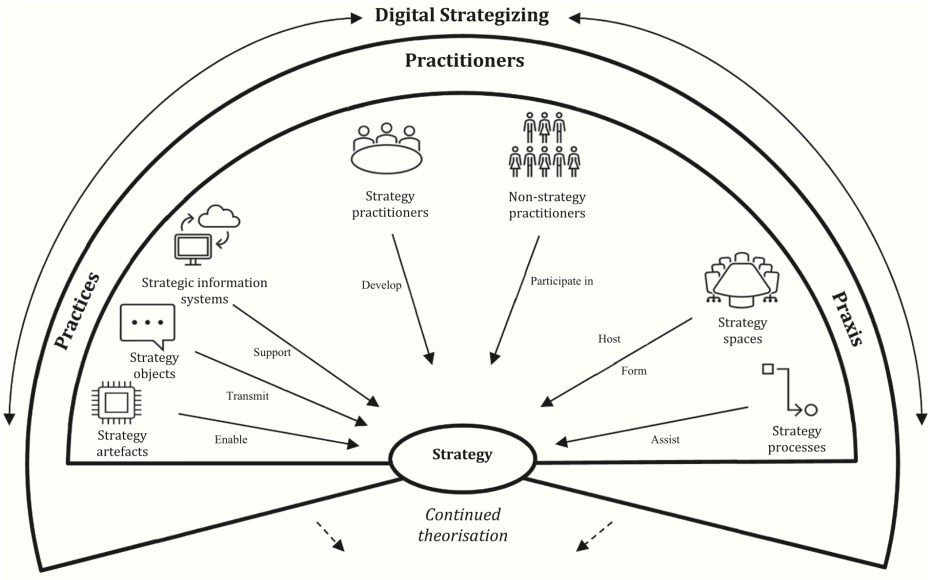


Figure 6 - Key themes of Strategy as Practice (Morton et al., 2022)

Practices are the business as usual routines and concepts, which are discursive, symbolic, material and technological (Whittington, 2014), used in delivering and implementing strategy work, and include;

- Strategy artefacts - Technologies that enable formulation and implementation of strategy.
- Strategy objects - Forms of text, speech, and software and hardware that transmit strategy.
- Strategic IS - Technologies that support strategy and its outcomes.

Practitioners include employees, managers involved in the strategising and who do stuff (Whittington, 2014), and include;

- Strategy practitioners - People in organisations who are traditionally directly involved in developing strategy.
- Non-strategy practitioners - People in organisations whose role does not entail direct participation in strategising.

Praxis reflects what people actually do on a daily life in their strategy work (Whittington, 2014), and include;

- Strategy spaces - Technologies that represent or create environments for hosting or forming strategy.
- Strategy processes - Everyday streams of activity in organisations that assist strategy.

2.2.1.2 Framing Strategic Alignment through Process and Practice Perspectives

Since the early 2000s, organisations have rapidly adopted internet, mobile, and data technologies. These innovations have expanded traditional systems of record by introducing systems of engagement[3] (e.g., websites, mobile phones, tablets) and systems of insight[4] (e.g., advanced analytics, big data, and big data analytics). These changes, driven by the interconnected, intelligent, and data-rich nature of digital technologies, have led researchers and organisations to rethink strategy. Scholars such as Bharadwaj et al. (2013), Coltman et al. (2015), and Galliers et al. (2017) have argued for a shift toward digital business strategy—a more emergent, iterative approach shaped by evolving organisational capabilities (Galliers, 2011).

[3] Capability provided by enterprise systems that empowers customers, partners, and employees with context-rich apps and smart products to help them decide and act immediately in moments of need (Forrester Research, 2012).

[4] Capability provided by enterprise systems to harness insights and consistently turn data into action (Forrester Research, 2015).

Over the past 60 years, organisations have learnt that technology alone does not solve problems. It is the strategic decisions about how technology is used that drive change. The evolution of terminology - from “data processing” in the 1960s, to “management information systems” in the 1990s, “technology strategy” in the 2000s, “digital strategy” in the 2010s, and “digital transformation” in the 2020s - reflects this shift. Today, IS strategy is increasingly viewed as part of business strategy, rather than separate from it. Bharadwaj et al. (2013) and Grover and Kohli (2013) describe this fusion as a single, integrated strategy that is both technology-inspired and focused on business value. Earl (1999) was among the first to propose this integration. Galliers (2011) observed that organisations are now forming their own digital strategies, where business and IS are closely intertwined. Sia et al. (2016) also support this view, suggesting that strategic alignment now requires recognising the embeddedness of IS across the organisation.

The current thinking in IS strategy still aligns with Kantrow’s (1980) view that technological decisions - whether related to digital, mobile, cloud, edge computing, quantum computing, blockchain, or artificial intelligence - are central to business strategy. These decisions must be made within the broader context of each organisation’s strategic goals. IS executives now play a key role in top management teams. Their expertise influences strategic decisions, and the IS function is increasingly integrated into core executive activities (Galliers et al., 2017). Strategic alignment is achieved when the IS plan and the business plan reflect and support each other (Kearns and Lederer, 2003).

In response to these perspectives outlined earlier, this research adopts an hybrid approach. Strategy-as-Process perspective is utilised to focus on how IS strategy unfolds over time through phases, stages, and iterative cycles that help sustain alignment. The main interest is in how strategic intent is translated into operational action, especially through the engagement of Executive Managers. While the process perspective is central, this research also draws on Strategy-as-Practice to examine the role of artefacts. These artefacts - such as documents, diagrams, assessments - act as boundary objects that help coordinate work across different stakeholder groups. By combining both perspectives, the study captures the broader strategic dynamics and the detailed, practical elements that make alignment work in real organisational settings.

2.3 Strategic Alignment

Among the hundreds of articles that were reviewed in detail during the literature review phase of this research, the depth and breadth of the discourse on strategic alignment can be summarised purely based on the titles of some of the highly cited academic articles. Scholars have asked several times what we have learnt (Chan and Reich, 2007a), why we haven't mastered alignment (Chan, 2001), some have even re-thought about alignment after so many years (Chan and Reich, 2011), some asked where it is going - Quo Vadis (Ward, 2012), some have drawn lines on the sand (Luftman and Kempaiah, 2007), some have minded the gap (Peppard and Ward, 1999), some considered divorce (Ward and Peppard, 1996), identified detours on the path to alignment (Hirschheim and Sabherwal, 2001), surfaced alignment traps (Shpilberg et al., 2007), explored its linkages with innovation (Chan et al., 2021), some went into the depths of alignment (Ciborra, 1997), identified so-called spill-over effects (Tallon and Pinsonneault, 2011) and some have checked on the heartbeats (Renaud et al., 2016) and some analysed the decades of research based on citation patterns (Jia et al., 2018b) given the size and scale of the extant literature on strategic alignment.

2.3.1 Definition of Strategic Alignment

2.3.1.1 Strategic Alignment in the Strategic Management Literature

The literature in strategic management and organisation theory have long examined strategic alignment from multiple perspectives (Centobelli et al., 2018). Early research established that organisational performance depends on the fit between factors such as strategy, structure, technology, culture and environment (Burns and Stalker, 1961; Bergeron et al., 2004). Chandler's (1962) work on the relationship between strategy and structure in North American organisations demonstrated that economic performance is closely tied to management's ability to align competitive positioning with an organisational structure capable of supporting its execution. In essence, organisations seek to use the most efficient combination of resources to deliver value to stakeholders.

Between 1960s and 1980s, contingency and configuration theorists have contended on the idea of connection between organisational alignment and performance (Powell, 1992). It was argued that the performance emerges as a function of fit where internal settings of the organisation, including structure and orientation, can be tested against various environmental factors including stakeholders' views (Lawrence and Lorsch, 1967; Powell, 1992). The fundamental view of fit involves a search for aligning the organisation with its environment and arranging resources to support that alignment (Miles and Snow, 1984). Strategic alignment is that all elements of a business, including the value chain and market strategy and the way the company itself is organised, are arranged in such a way as to best support the fulfilment of its long-term purpose (Trevor and Varcoe, 2016). The concept of alignment lends itself to the creation of high-performance work systems by explaining how the interdependent elements of the organisation can achieve greater individual and collective efficiency and effectiveness (Semler, 1997). The wheels of the automobile or the rowers in a boat are the analogies that are commonly used to describe the concept of alignment as set of components working in harmony in order to move to the desired or planned direction, and reach a common goal (Semler, 1997).

LCAG framework was developed by **L**earned, **C**hristensen, **A**ndrews and **G**uth in 1965 (based on their initials) and argued that the firm's strengths and weaknesses, the external industry, economic and technical opportunities and threats, the personal values and broader social expectation need to be interrelated (Saadatmand et al., 2019). The framework outlines the importance of fit between the personal values of management with the organisation's skills and resources, as well as with its external environment. Strategy is concerned with a match between internal resource capability and external opportunity towards superior performance that will create and maintain competitive advantage (Porter, 1980).

It is important to note that although the performance of the organisation is generally linked to its success on strategic alignment and creating competitive advantage, these two approaches have completely different origins. The alignment approach focuses on organisation structure and environment and neglects strategic positioning, and also considers "integrative capacity" of the managers as defined by Lawrence and Lorsch (1967), which supported the emergence of resource-based view

and dynamic capabilities (Teece, 2003). On the other hand, competitive advantage approach focuses on competitive strategy and market positioning and neglects internal organisation attributes (Powell, 1992). Creating new value for the entire value chain as an evolution of the existing industry models or via revolutionary new models in the existing industries has been a major challenge for organisations due to uncertainty, complexity and change of the environment (Hamel, 1998). Innovative methods of solving economic and operational problems related to productivity, performance including quality and efficiency, and predictability in order to become pro-active, are the essentials of being competitive in order to continue to operate and survive in the economical ecosystem.

Galbraith (1974, 2014) proposed the Star model (illustrating the each corner as the category of design principles) strategy (direction); structure (location of decision-making power); processes (flow of information linked to IS); rewards and reward systems (motivation of employees to perform and address organisational goals); people (employees' mind-sets and skills). The model emphasises that the level of productivity and performance of the organisation is driven by the alignment and harmonious interaction of each of the corners of the star with each other.

Arguments supporting the positive effects of strategic alignment are principally based upon the increased understanding, coordination and collaboration it brings to the definition and execution of the strategies. Organisational performance is a consequence of the dynamic coherence seeking to align the organisation with its environment and to organise resources internally in support of this alignment (Miles and Snow, 1984). Alignment is also defined as a constant balancing act within multiple cycles of change which are specific to the internal and external context of the organisation (Burn and Szeto, 2000). Organisations who are able to manage this balancing act correctly and continuously would have a better chance of success in the management of the alignment process. The conflictual alignment patterns between strategy and structure domains of business and technology in any organisational setting likely to exhibit lower levels of business performance (Bergeron et al., 2004).

Based on the extant literature evolved within the strategic management and organisation theory over that last century, there is a solid linkage established between the concept of alignment and business performance and productivity. Most of the

organisations view strategic alignment between business and IS strategies as a priority (Kappelman et al., 2022; Johnson et al., 2025) and extant literature on IS domain for strategic alignment which is covered in the next section is a testament to this view.

2.3.1.2 Strategic Alignment in the Information Systems Literature

Aligned with the emergence of IS discipline in academia, the issue of achieving and sustaining strategic alignment between business and technology was first documented in late 1960s (Burns and Stalker, 1961) and the strategic importance of computer system planning was documented (Kriebel, 1968). The attention to examining consistencies between the strategic, external levels of business and IS has been drawn as a one way link by King's seminal work (1978). Technological advancements which started in the second half of 20th century, has led to the evolution of IS's role from recording and processing transactional data to a key competitive advantage component and a significant prerequisite for productivity and performance. This change has attracted a higher level of top management attention (Rockart 1979; Porter and Millar, 1985; Lederer and Mendelow 1988; Ginsberg and Venkatraman 1992) and strategic alignment has become a dominant topic in the literature (Kappelman et al., 2022; Johnson et al., 2025).

The researchers have studied its antecedents, impediments, consequences, models, types and impacts on organisation performance because of its potential impact on firm performance (Chan and Reich, 2007a). This plethora of research effort on strategic alignment has resulted in over thousands of research articles driving special issues of journals, literature reviews, meta-analyses (Chan and Reich, 2007a; Bharadwaj et al., 2013; Gerow et al., 2014; Coltman et al., 2015; Karpovsky and Galliers, 2015), annotated bibliography (Chan and Reich, 2007b), and co-citation analysis of references and bibliographic coupling analysis (Renaud et al., 2016; Walsh and Renaud, 2017, Jia et al., 2018b).

Since late 2000s, scholars have started to reflect their views on IS strategic alignment as a dynamic, nondeterministic process that evolves over time (Chan and Reich 2007a; Leonard and Seddon, 2012; Moeini et al., 2019; Wang et al. 2011). Alignment addresses both doing the right things (effectiveness) and doing things right

(efficiency) (Luftman et al., 1999). There are several terms used to describe strategic alignment in the academic literature since late 1980s including “fit” (Venkatraman, 1989), “harmony” (Luftman et al., 1993), “linkage” (Henderson and Venkatraman, 1993), “bricolage” (Ciborra, 1996), “bridge” (Ciborra 1997), “integration” (Weill and Broadbent, 1998), and “fusion” (Smaczny, 2001).

Strategic alignment is defined as the fit between the business strategy and IS strategy within an organisation (Chan et al. 1997; Henderson and Venkatraman 1999; Sabherwal and Chan, 2001). McLean and Soden (1977) articulate the need for a “strong link” between the business plan and the IS plan (Galliers, 2006). A widely accepted definition for strategic alignment is “the degree to which the IT mission, objectives, and plans support and are supported by the business mission, objectives, and plans” (Reich and Benbasat, 2000, p. 82).

2.3.1.3 Strategic Alignment in this Research

Building on the definitions from the academic literature as provided in the earlier sections, this research adopts a process-oriented perspective to conceptualise strategic alignment. Rather than viewing alignment as a static outcome or a one-time event, strategic alignment is considered as a dynamic and evolving system of interrelated processes and activities. These activities operate within a continuous feedback loop, reflecting the iterative nature of aligning IS with business strategy. The proposed definition is grounded in the practical realities of IS strategy development and execution, IS operations, and management of IS technology landscape. The proposed definition that is outlined below aims to capture the multifaceted scope of alignment as it unfolds across governance, strategic planning, technology decision-making, execution of IS operations, and management, maintenance and support of IS technology landscape.

The Researcher defines “Strategic Alignment” as a family of interrelated processes that operate in a cyclical and continuous feedback loop. These processes collectively govern the evolving relationship between IS and business strategy, and include:

- Establishing the role of IS within the organisation and aligning it with business strategy and objectives,

- Formulating IS strategy and overseeing the implementation of strategic initiatives,
- Making informed technology decisions and securing investment funding,
- Maintaining and evolving the existing technology landscape, and
- Executing IS strategy to meet the ongoing needs of business users.

2.3.2 Evolution of Thinking in Strategic Alignment

Strategic alignment is viewed as a state of fit that affects firm performance (Bergeron et al. 2004; Chan et al. 1997; Sabherwal and Kirs 1994) and a capability (Baker et al. 2011; Byrd et al. 2006) to leverage the organisations' IS investments (Sabherwal et al., 2019; Saldanha et al., 2020). Preston and Karahanna (2009a) considers strategic alignment as a requirement to allow organisations to capitalise on their IS investments.

Strategic alignment is driven by the organisational ability to understand the value of IS in the context of the business strategy. Most of IS strategy literature and practices have been built on the concept of alignment (Galliers, 2006; Earl, 1999). Scholars have repeatedly found that alignment affects profit, productivity, sales growth, and reputation, prompting firms to consider efforts to further increase the extent of fit between IT and business strategy (Chan et al. 1997; Chan et al. 2006; Oh and Pinsonneault 2007; Preston and Karahanna 2009a; Tallon 2008). Based on the theories of coordination and complementarity, Bharadwaj et al. (2007) articulates that operational performance initiatives must consider the effects of superior IS capability that can be achieved by the assimilation and diffusion of advancements in IS.

Organisations significantly spend on IS, and it is the single largest capital expense in many firms today and integral to achieving business goals (Weill and Broadbent, 1998). Based on Gartner (2024), organisations spend between 1.2% and 6.9%, and an average of 5.7% (Johnson et al., 2025) of their business revenue and between 1.5% and 10.3% (Gartner, 2024) of their total expenditure on IS.

Several scholars in the recent past (Sabherwal et al., 2019; Saldanha et al, 2020; Pesce and Neirotti, 2023) found strong empirical support for both the direct effect of strategic alignment on firm performance and its moderating effect on the relationship

between IS investments and firm performance. Tallon et al. (2016) suggests that not every process in the organisation would achieve the same marginal improvement or benefit from the IS investment, therefore the identification of the right set of activities and processes for further IS investment is critical and this is part of the alignment paradox.

IS planning is about building consensus regarding the role of IS in the organisation, requiring mutual understanding and communication (informal or formal), documenting details to integrate across complex systems, and committing resources to execute the agreed plan (Pyburn, 1983). Business strategy formulation, which provides clear vision and strategy for the organisation, is the vital first step in the iterative (not incremental) process of the IS strategy formulation that is then followed by the definition of action plan and resource allocation (Henderson and Sifonis, 1988). In their seminal article, which is the most cited article introducing the most dominant strategic alignment model (SAM) in the IS literature (Chan and Reich, 2007a), Henderson and Venkatraman (1993) defines strategy as two sets of choices "involving both formulation (decisions pertaining to external competitive, product/market choices) and implementation (choices pertaining to the internal structures and capabilities of the firm in order to execute its product/market choices)" (p. 472). Henderson and Mitchell (1997) expanded their view on strategic alignment to articulate that the redesign of business processes can better support the business strategy and IS strategy should be developed as a response to business strategy and should be modified via emerging IS capabilities to achieve strategic fit. Croteau and Raymond (2004) reflected on the advancements in IS and urged organisations to leverage IS in order to transform themselves into "intelligent" and "agile" organisations that are continuously adapting and changing in a process of strategic alignment or fit.

In despite of the known issues and gaps in the strategic alignment literature, there are several common agreements among the IS scholars. Better alignment between business and IS improves general business performance (Byrd et al., 2006; Gerow et al., 2014; Coltman et al., 2015; Van de Wetering et al., 2017; Pesce and Neirotti, 2023), increases efficiency and effectiveness (Lodahl and Redditt 1989; Venkatraman 1991; Sabherwal 2001), drives cost savings (Venkatraman 1991; MacDonald 1991), and improves market positioning and strategic capability (Venkatraman 1991; Yayla and Hu,

2012). As IS plays critical role in defining corporate strategies, its correct application facilitates both a more competitive and profitable organisation (Papp, 1999, Gerow et al., 2014, Coltman et al., 2015, Tallon et al., 2016, Queiroz, et al. 2020).

It is one of the common themes among these definitions within the literature that strategic alignment is not about the technology, it is all about the constant processes (Luftman et al., 1993), which are dynamic, iterative and continuous, that drive the alignment between business and IS strategies in order to gain strategic advantage. Therefore, strategic alignment is a journey to an end state and not an end state by itself (Dulipovici and Robey, 2013).

The strategic alignment literature is also criticised for being too conceptual and not reflecting actual practice (Ciborra, 1997). The fragmented nature of the IS literature and the inherited theory-borrowing approach has led scholars to explore the concepts from a macro level and does not delve into the particularities of the alignment evolution process and the practices that are necessary to enable it (Peppard et al. 2014). Operationalisation of strategic alignment stays as a mystery (Campbell, 2005) due to the lack of academic knowledge on how exactly business and IS alignment is actually approached, planned, designed and executed in organisations reflecting what specific activities, people, skills, meetings, workshops, documents, and collaborative interactions lead to the desirable alignment of business and IS.

IS scholars are calling for strategic alignment research to explore a more holistic treatment of alignment at multiple organisational levels and across multiple dimensions (Chan and Reich, 2007a) in order to avoid focusing solely on the antecedents, enablers and inhibitors of alignment, and to drive research on the activities of aligning where actors do “aligning” (Karpovsky and Galliers, 2015). Although this call for research would provide further clarity on what actually happens during the strategic alignment, but it may still not look under the bonnet to explore the advancements in technology and its implications on organisations at a granular level.

This research has the purpose to inquire and report a review on strategic alignment between business and IS strategies in order to identify detailed list of activities associated with alignment tasks in each phase/stage, including the definition of key artefacts’ (i.e. outputs/documents) content outline to address the call for research to

demystify how exactly business and IS alignment is actually approached, planned, designed and executed in organisations reflecting what specific phases, stages, activities, workshops, documents, and collaborative interactions lead to the desirable alignment of business and IS.

2.3.2.1 Antecedents and Enablers of Strategic Alignment

Another area of common ground, which IS literature has established empirically, is the topic of antecedents, inhibitors and enablers of strategic alignment that also clarifies the impediments, prohibitors and obstacles to strategic alignment.

The complex correlation between strategic alignment and perceived business performance, where business strategy is a dependent variable, has been empirically established (Sabherwal and Chan, 2001). Well-aligned IS and business strategies mean that the enterprise utilises IS in coordination with business strategies, strategic goals, and functional and non-functional business requirements (McKeen and Smith, 2003). It was also established that effective communication between the business and technology specialists responsible for strategy and execution within an organisation is one of the key enablers impacting strategic alignment (Pyburn, 1983; Luftman and Bier, 1999; Wagner et al., 2014; Jia et al., 2018a).

Based on the review of the extant literature, the following themes were defined as enablers and antecedents of strategic alignment. A comprehensive review of the quantitative research studies providing a variety of validated factors that significantly impact the strategic alignment are provided in Appendix 3 (Section 8.3.16) of this thesis.

Table 4 - Antecedents and Enablers of Strategic Alignment

Theme	Description
Existence of goals and plans	Reflects the agreed plans and objectives among the business and IS functions within the organisation.
Positioning of IS in the organisation	Reflects the leadership and sponsorship provided by business and IS management in the organisation to drive value out of their IS investments.
Shared knowledge domain	Outlines the level of common understanding of business and IS subject matter among the executives, managers and senior staff across the organisation.
Performance of IS in the organisation	Reflects the previous success and ever evolving capabilities of the IS function covering service management, customer support, identification of solutions and overall support to business functions.
Stakeholder engagement and communications	Includes the level of collaboration between business and IS executives, managers and senior staff across the organisation in relation to level of engagement, relationships, interaction, participation and communications on the business and IS subject matter.

Organisations are advised to work toward minimising activities that inhibit alignment and maximise activities that bolster strategic alignment by improving relationships, working towards mutual cooperation and participation and maintain executive support (Luftman at al., 1999), however available literature does not provide sufficient insights on the nature of engagement with Executive Managers and more specifically how they are engaged, what they contribute, and what they gain as an outcome of their engagement with the strategic alignment process.

2.3.2.2 Strategic Alignment Types

Strategic alignment is a critical concept in the field of IS and has been extensively studied in the literature, with two distinct types (or dimensions) of categorisation for strategic alignment have been identified. One of which is based on SAM (Strategic Alignment Model) of Henderson and Venkatraman (1993), and outlining six dimensions: *business alignment*, *IT alignment*, *intellectual alignment*, *operational alignment*, and *two cross-dimension alignments*. SAM illustrates four domains to be aligned via six alignment types (dimensions) (Henderson and Venkatraman, 1993; Gerow et al., 2015; Queiroz, et al. 2020) with the objective of all domains to be aligned where the multi-directional arrows represent alignment processes as shown in the figure below

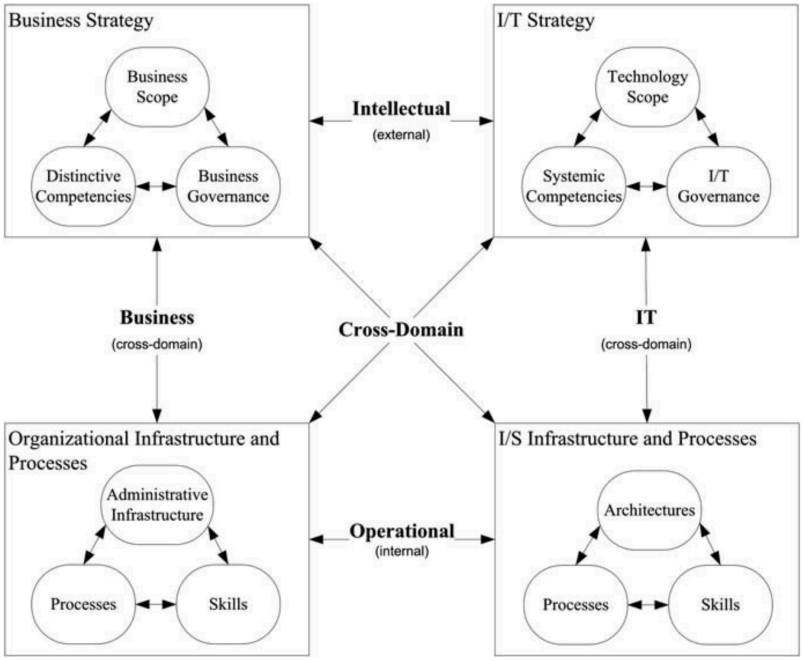


Figure 7 - Strategic Alignment Model (SAM) (Henderson and Venkatraman, 1993)

Alignment types mentioned are:

- alignment between business strategy and IT strategy (intellectual alignment),
- alignment between IT strategy and IT infrastructure and processes (IT alignment),
- alignment between IT and business infrastructure and processes (operational alignment),
- alignment between business strategy and business infrastructure and processes (business alignment),
- and two types of cross-domain alignment
    - alignment between business strategy and IT infrastructure and processes (cross-domain: business strategy to IT), and
    - alignment between IT strategy and business infrastructure and processes (cross-domain: IT strategy to business).

The other categorisation is based on seminal articles of Reich and Benbasat (1996, 2000) outlining *intellectual alignment* and *social alignment* which has its roots in the original classification of Horovitz (1984). The author categorises the process of business strategy formulation and implementation into two key dimensions and views the intellectual dimension as compassing special methodologies, techniques, and data used

in this process, while the social dimension is viewed as the choice of actors, their degree of involvement, and methods of communication and decision-making (Horovitz, 1984).

Based on this classification, Reich and Benbasat (2000) describes intellectual dimension of alignment as "the state in which a high-quality set of interrelated IT and business plans exists", while social alignment is defined as "the state in which business and IT executives within an organisational unit understand and are committed to each other's mission, objectives, and plans" (p. 82). Authors define four factors (including shared domain knowledge (intellectual alignment), IT implementation success, communication between business and IT executives and connections between business and IT planning) that influence the social dimension of alignment (social alignment) between business and IS.

Gerow et al. (2014) suggests that strategic alignment is driven by the organisational ability to understand the value of IS in the context of the business strategy, and this aspect of alignment between business and IS is referred to as intellectual alignment, or simply as strategic alignment. Social alignment is intangible and defined by the coordination, communication, understanding, trust, and social capital that occurs between organisational actors (Nahapiet and Ghoshal, 1998; Kearns and Sabherwal, 2006; Gerow, 2020). The unique relationships between the aforementioned alignment types were analysed by Gerow et al. (2014) in a meta-analysis study covering 71 quantitative research papers between 1992 and 2012. The authors concluded that operational alignment is influenced by intellectual (strategic) alignment and "social alignment influences intellectual alignment but may not influence operational alignment" (Gerow et al., 2016, p. 548). Their findings mean that without having a collaborative engagement, participation, and communication - a social alignment - leading to strong engagement between the business and IS stakeholders at all levels, organisations may not establish a shared understanding on business and IS related key issues, challenges and form viable solutions that would improve the strategic and operational alignment leading to increased productivity and performance of the organisation (Gerow, 2020). Social alignment focuses on the values, visions, communications and shared knowledge and understanding of the IS and business actors involved in strategic alignment (Reich and Benbasat, 1996, 2000; Wagner et al., 2014; Schlosser et al., 2015; Sha, Chen and Teoh, 2020).

Gerow et al. (2016) suggests that when executives are engaged and socially aligned, they are able to demonstrate higher levels of social capital and engagement to ensure appropriate positioning and use of IS within the organisation, however it is still unclear how social alignment impacts different strategic alignment types (Gerow, 2020) or how social alignment can be facilitated given its complexity (Ullah and Lai, 2013). Gerow (2020) suggests that while Reich and Benbasat (2000) model considers both strategic alignment and social alignment the same in that they both address the alignment of business and IS; however their model is unique to address the alignment of people in addition to the alignment of strategies and processes across business and IS.

Intellectual alignment complements social alignment in dynamic environments to achieve sensing and responding (Zhou et al., 2017; Hu, Wang and Liang, 2023) and social alignment is an antecedent of intellectual alignment and its effects on organisational outcomes are fully mediated by intellectual alignment (Preston and Karahanna, 2009a). In other words, these findings summarise that without having a collaboration platform within the organisation that allows cross engagement, participation, communication leading to better and strong relationships between the business and IS practitioners at all levels, organisations can not establish a shared understanding on business and IS related key issues, challenges and potential good solutions that would improve the strategic alignment that will lead to increased productivity and performance of the organisation. This conclusion grounded on several quantitative research studies also validates the conceptual proposition of strategic alignment that addresses both doing the right things (effectiveness), and doing things right (efficiency) (Luftman et al., 1999) and improves business performance and productivity.

2.3.2.3 Strategic Alignment Models and Frameworks

Although theories, models and frameworks are distinct concepts, the terms are sometimes used interchangeably (Kitson et al., 2008). These terms are inextricably linked by core characteristics such as concepts, hypothesis, propositions and linkages (Rycroft-Malone and Bucknall, 2010). Weick (1995) considers the use of "...conceptual framework,...an approach to a theory, and principles of..." words in the research article

titles as the modesty of scholars, and he strongly urges scholars not to reserve theory to mean only good, grand, unassailable theory.

Theory is an explanation, implies some predictive capability and attempts to explain the casual mechanism (Nilsen, 2015). According to Dubin (1983), a theory's origin must start with the "observation and description of the real world are the essential points of origin for theories in applied areas" (p. 18). Concepts are the building blocks of theory (Rycroft-Malone and Bucknall, 2010) that form the basis of conceptual work, not only to describe but also to explain how it works. Theory is a "way of seeing through a set of relatively concrete and specific concepts and propositions that describe or link those concepts" (Fawcett et al., 2001, p. 117). Popper (2002) states that it is impossible to prove a theory, it can only be disproved by observation or experimentation due to the nature of falsifiability characteristic of scientific theory. A theory can be a model that utilises some hidden variables or constructs in order to explain the phenomena in question (Warr et al., 2020).

Models are narrower in scope, compared to theory, and are more precise since they include well defined concepts and specific relationships in between (Rycroft-Malone and Bucknall, 2010). Turban and Meredith (1991) defines model as "simplified representation or abstraction of reality" (p. 30). A model offers a more precise representation and is more prescriptive (Chinn and Kramer, 1991). A model is a statement of a working hypothesis and aims to improve our understanding, bound the extent of our knowledge even to predict and acquire new knowledge (Hogarth, 1986).

Process and maturity models are another set of terms that are commonly used in the literature. Process models are used to make decisions about where, how, and why changes to the processes should be enacted to gain productivity and efficiency (Sánchez-González et al., 2013). Process model outlines phases or stages of the process, from discovery and production of research-based knowledge to implementation and use of research in practice (Nilsen, 2015). Maturity models are based on theories and represent the evolution of progress in the respective context in a stage-based approach (Pöppelbuß and Röglinger, 2011) to outline anticipated, desired, or logical maturation path (Gottschalk 2009, Kazanjian and Drazin 1989).

Frameworks have a descriptive purpose by pointing to factors believed or found to have an influence, and they are typically more like checklists of factors relevant to various aspects of the subject in question (Nilsen, 2015). A framework is a representation that does not necessarily include causal mechanisms and relationships or explain how it works (Warr et al., 2020). Evaluation framework is also another term widely used in the literature. It can be considered as a sub-category of frameworks, and it provides a structure for evaluating implementation endeavours (Nilsen, 2015).

A wide range of models or frameworks of strategic alignment and its components including measurements have been proposed (Sabherwal et al., 2001; Chan, 2001; Avison et al., 2004; Chan and Reich, 2007b; Coltman et al., 2015; Ward, 2012; Jia et al., 2018b) and extended over time to provide managers better understanding on alignment. A detailed review of the strategic alignment models is outlined in Appendix 3 of this thesis. It is important to note that none of the models outlined in Appendix 3 can be considered as a theory. In some instances, a few of them can be considered as a framework and some of them are process models. Almost most of the available models for strategic alignment are a deviation of the Strategic Alignment Model (SAM) introduced by Henderson and Venkatraman (1990 and 1993). This research will consider SAM as part of the conceptual framework development. Strategic alignment models are still considered static, and not founded on strong theoretical foundations. What is known about strategic alignment so far still lack actionable conclusions that would provide managers ways to achieve or improve alignment (Luftman et al., 2017).

Yeow et al. (2018) advanced processual research on strategic alignment by using a single case study to propose a process model of generalisable organizational actions that enable alignment. Drawing on the dynamic capability view of strategy, they outline three phases - exploratory, building, and extending - and three corresponding actions: sensing, seizing, and transforming. Recent systematic reviews (Őri and Szabó, 2024) confirmed that while models like SAM are widely cited, they have not evolved to include granular process steps or artefact definitions, leaving a gap in operational guidance. Dairo et al. (2021) conducted an empirical study involving professionals across sectors, which revealed several practical challenges in achieving strategic alignment. These included issues such as unclear strategic goals, ineffective leadership, communication breakdowns, and misaligned organisational cultures (Petland et al., 2020).

Dairo et al. (2021) argue that while conceptual models like the Strategic Alignment Model (SAM) offer a high-level view of alignment, they fall short in explaining the specific processes and mechanisms through which alignment is achieved. Their findings emphasise the need for a deeper understanding of how alignment is implemented in practice, particularly in terms of harmonising stakeholder agendas and articulating the value of strategic alignment within organisations.

The strategic alignment models do not provide a process view of the strategic alignment, and do not include any set of defined tasks, activities and artefacts required to create and sustain the strategic alignment. The models available in the literature are mainly engineering focused and do not reflect the role of the strategist and the people involved, and the nature of the engagement between them within the strategic alignment process, with the only exception of the model developed by Reich and Benbasat (2000) which was based on a case study research investigating the social alignment dimension.

Reich and Benbasat (2000) model outlines four factors (including shared domain knowledge, IT implementation success, communication between business and IT executives and connections between business and IT planning) that influence the social dimension of alignment between business and IS. While the importance of frequent unstructured or structured communication is noted by the authors, the main emphasis of the model for long term alignment between business and IS was on the significant influence of shared domain knowledge. Gerow (2020) suggests that while the Reich and Benbasat (2000) model considers both strategic alignment and social alignment same in that they address the alignment of business and IS, their model is however unique to address the alignment of people in addition to the alignment of strategies and processes across business and IS.

Scholars have struggled with ways of measuring alignment with any degree of accuracy and common agreement, as different measurement approaches based on different levels of conceptualisation and operationalisation have produced different results. A review of the strategic alignment measurement and maturity models is outlined in Appendix 4 of this thesis. Tallon et al. (2016) observes that the current alignment measures do not clearly distinguish between whether IS is a support tool or a strategic enabler and iterates by stating “the default has been to favour the former rather than the latter or to combine both” (p.581).

2.3.2.4 The Business Value of Information Systems

The determination of IS business value is part art and part science (Tallon et al., 2020). Business value of IS is defined as ‘‘the organisational performance impacts of IT at both the intermediate process level and the organisation wide level, and comprising both efficiency impacts and competitive impacts’’ (Melville et al. 2004, p. 287). Schryen (2013) defines business value of IS as “the impact of investments in particular IS assets on the multidimensional performance and capabilities of economic entities at various levels, complemented by the ultimate meaning of performance in the economic environment’’ (p. 141).

Although knowledge-worker productivity is the most significant of the 21st century management challenges (Drucker, 1999), one of the discourses on IS re-emerged with an article written by Carr (2003), and heated the debate on “productivity paradox'' (Brynjolfsson, 1993). The origin of the debate was Robert Solow’s memorable words (Economist, 2003) - ‘‘you can see the computer age everywhere but in the productivity statistics” - have had a significant and enduring impact on the IS community. One of the arguments that Carr (2003) has used in his article, titled “IT doesn’t matter” was related to Moore’s law reflecting the cost reduces for the computing power over time. As a counter argument, researchers employed Amara’s law that suggests that there is a tendency to overestimate the impact of technology in the short run and underestimate the effect in the long run (Ratcliffe, 2016).

Value creation is defined as the contribution to the utility of the final good or service to end users and distinguish it from value capture defined as the difference between revenue and cost retained by the organisation (Bowman and Ambrosini, 2000). At the core on the value creation discourse, transaction cost theory (Williamson, 1998), which aims to explain the emergence and structure of IS from a techno-economic standpoint, is concerned with the minimisation of a cost function consisting of transaction costs and production costs, and the containment of risks that arise due to the opportunistic behaviour of internal and external stakeholders to gain competitive advantage. It is widely accepted within the IS research literature that technology itself has no inherent value and that IS alone is unlikely to be a source of sustainable

competitive advantage, as the business value derived from IS investments only emerges through business changes and innovations covering a wide range of areas for origination in either product/service innovations, new business models, or process change (Grover, 2016). When combined with the business change and transformation, IS provides three main value domains to organisations;

- Productivity - the rate at which an organisation provides services, usually judged in connection with the amount of resources and materials necessary to deliver the services. Productivity relates to internal value and is manifested in the reduction of operational costs (Drucker, 1966).
- Performance - how well a person, system, asset, etc. does/deliver a piece of work or an activity - more with same or less (Neely et al., 1995).
- Predictability - the state of knowing what something is like or when something will happen. This in turn, indirectly impacts the productivity and performance of the organisations that have mechanisms in place to take action based on the insights provided by the predictive models. (Acharya et al. 2018; Hou, 2012; Popovič et al., 2010).

Byrd et al. (2006) explains the moderating effect of strategic alignment on the relationship between IS investment and firm performance based on synergistic coupling between strategic alignment and IS investment with firm performance. The authors suggest that the real value of strategic alignment is in leveraging the organisation's IS investment, and organisations that have good alignment can invest more in IT with the higher confidence that it will be leveraged substantially. As a result, business cases have become popular as part of managing value creation and demonstration of IS within the organisation. Berghout and Tan (2013) suggests that detailed understanding of the business worthiness of IS projects is valuable for organisations planning for unfamiliar IS projects, although development of business cases consume substantial resources.

Although the recent studies show that IS increases the operational efficiency and competitiveness of organisations, Afflerbach (2015) argues that organisations are only articulating the operational benefits in practice, and not articulating the strategic and competitive benefits. According to the author, this is a one-sided view and is called "perception paradox". Perception paradox exists due to the variations between the conceptualisation and realisation of the business value of IS (Afflerbach, 2015) that are

driven by objective and subjective nature of the constructs, time differences in the measurement, the inclusion of uncertainty and risks in the perceived value and potential biases and heuristics in definition statements.

2.3.2.5 Theoretical Perspectives in Strategic Alignment

The literature on strategic alignment has been criticised for being atheoretic (Chan and Reich, 2007a) and static, which limits its ability to explain how alignment evolves over time (Lee et al., 2015).

Early empirical studies, up to the mid-1990s, mainly used contingency theory. This theory focuses on achieving congruence between organisational elements. It has been applied to study environmental turbulence (Chen et al., 2010; Huang, 2009), strategic choices (Sabherwal and Chan, 2001), and organisational structures (Brown and Magill, 1994). However, these studies are seen as lacking depth in explaining the mechanisms and processes of alignment (Chan and Reich, 2007a).

From the late 1990s, researchers began using the resource-based view (RBV). This perspective helped explore factors that support or hinder alignment, such as stakeholder engagement and communication (Campbell, 2005; Chong et al., 2011; Kearns and Sabherwal, 2007; Sabherwal and Kirs, 1994; Luftman et al., 1999), and shared knowledge domains (Johnson and Lederer, 2010; Tan and Gallupe, 2006; Preston and Karahanna, 2009a; Chan et al., 2006; Reich and Benbasat, 1996). Chan and Reich (2007a) recommend using RBV and institutional theory to build stronger theoretical foundations for alignment research.

Later, the dynamic capabilities view became more prominent. It focuses on how organisations adapt their strategies and resources to stay competitive (Baker and Singh, 2019). Strategic alignment is seen as a capability based on specific IS competencies (Peppard and Ward, 2004; Agarwal and Sambamurthy, 2002; Hirschheim and Sabherwal, 2001). More recently, scholars have adopted a co-evolutionary perspective. This view sees strategic alignment as a continuous process shaped by interactions between people, technology, and strategy. Ciborra (1992) described alignment as a journey, not a fixed state. He introduced ideas like care, hospitality, and human

experience into the alignment discourse (Ciborra, 1997), building on earlier work about the relationship between technology and people (Somogyi and Galliers, 1987).

Peppard and Breu (2003) proposed a co-evolutionary model where IS strategy and business strategy shape each other over time. Benbya and McKelvey (2006) used complexity theory to show how alignment emerges through feedback loops and adaptive behaviour. Amarilli et al. (2023) supported this with system dynamics and causal loop diagrams. Benbya, Leidner and Preston (2023) described alignment as a dynamic process across strategic, operational, and social levels. Merali et al. (2012) viewed IS strategy as a Complex Adaptive System (CAS) that responds to change through networked and emergent behaviours.

Another important perspective is enterprise architecture (EA). EA is seen as a key tool for enabling strategic alignment (Alaeddini and Salekfard, 2013; Bhattacharya, 2018; Besse et al., 2023). Allen and Boynton (1991) highlighted the role of IS architecture in supporting flexibility and responsiveness. Valorinta (2011) argued that EA can act as a boundary object, helping manage internal and external organisational boundaries to improve alignment. Ivas et al. (2026) suggests that the development of a practical, value adding business capability model that extends beyond conceptual abstractions and integrate business architecture artifacts with the IS solutions realising them.

A summary of these theoretical perspectives is provided in Appendix 5, while Appendix 6 reviews the technology and human perspectives that have shaped the understanding of user impact in strategic alignment.

2.3.2.6 Theoretical Perspectives in this Research

Dynamic capability and Co-evolutionary perspectives provide valuable lenses for orienting analysis toward actors and the sensing–seizing–reconfiguring processes that underpin strategic change. However, these perspectives rarely offer the kind of technical scaffolding that prescribes the practical mechanics of strategy work - such as who convenes with whom, at what junctures, using which artefacts, and to produce what specific decisions. This research aims to addresses this gap by empirically identifying

such scaffolding with an attempt to reveal how abstract capabilities and practices materialise in organisational settings.

IS adoption and socio-technical literatures illuminate post-adoption behaviour, habit formation, and user–system interactions, yet alignment still fails when business and IS communities talk past each other. This research considers Enterprise Architecture view as a mediating perspective and operate as material boundary objects that stabilise meanings (social alignment) by means of structured documentation, set boundaries for agreed design (intellectual), and accelerates delivery success (operational).

This research combines the Enterprise Architecture view with the Co-evolutionary perspective that emphasises that strategic alignment is not a static end-state but an ongoing process of mutual adaptation between business and IS strategies in response to environmental turbulence and organisational change (Benbya and McKelvey, 2006). This view highlights the importance of continuous learning and reciprocal adjustments, where alignment emerges through iterative cycles rather than one-off design efforts.

2.3.3 Critical Summary of the Strategic Alignment Literature

Although strategic alignment and IS strategy have been extensively studied, the literature remains fragmented and conceptually heavy, offering limited practical guidance for organisations. Over the years, numerous models and frameworks have been proposed, yet they often fail to address the operational realities of alignment, such as the specific activities, artefacts, and engagement mechanisms that underpin successful implementation. Furthermore, the dynamic nature of technology and business environments has exposed the limitations of static, linear approaches, while the social and cognitive dimensions of alignment - particularly the role of executive engagement - remain underexplored. These shortcomings collectively highlight the need for a more granular, actionable, and context-sensitive understanding of strategic alignment.

Despite decades of research, managers still struggle to find actionable advice (Luftman et al., 2017). Dairo et al. (2021) highlight the lack of artefact-level detail and structured process models. Őri and Szabó (2024) confirm that popular models like SAM have not evolved to include clear process steps or artefact definitions. Scholars continue

to call for research that looks at alignment across different organisational levels and focuses on what people actually do when aligning (Chan and Reich, 2007a; Moeini et al., 2019; Karpovsky and Galliers, 2015; Sinz and McDonagh, 2019; Hughes and McDonagh, 2021).

A recurring issue is the lack of focus on IS-related artefacts. Scholars have not deeply explored the core subject matter of IS artefacts (Orlikowski and Iacono, 2001; Moeini et al., 2020). Much of the literature gives normative advice on IS strategy formulation (Walsham and Waema, 1994) but does not define what an IS strategy should contain. Compared to organisational strategy, which focuses more on content (Pettigrew, 1992), IS strategy research tends to emphasise process and context.

Another gap is the limited attention to engagement and social alignment. Few studies explore relationships, communication, trust, and cultural factors between business and IS stakeholders (Schlosser, Wagner and Coltman, 2012; Alaceva and Rusu, 2015). The role of Executive Managers in alignment is acknowledged but not well understood.

There is also a lack of detail on the phases and stages of the alignment process. The literature does not clearly link alignment to strategy development and execution, nor does it offer frameworks for managing executive involvement. It rarely defines the activities and artefacts used in each phase. The actual contributions and gains for Executive Managers during alignment are also underexplored. Past studies often measure engagement using structural or relational proxies, which simplify engagement to mere presence. This research aims to explore how Executive Managers engage, what forms their engagement takes, and what makes it effective. Detailed descriptions of what they contribute and gain are rare. Filling this gap can help explain how social, intellectual, and operational alignment really works.

Traditional models treat alignment as a one-time achievement. They focus on planning and structure but ignore the ongoing, adaptive nature of strategic engagement. This limits their ability to reflect the complexity and change in real organisations. Even though co-evolutionary models offer a new way of thinking, they are often abstract. They do not explain how alignment is done in practice, how Executive Managers are involved,

or what artefacts and activities support alignment. This lack of clarity makes it hard for organisations to apply these models.

The literature is also criticised for being too theoretical and disconnected from practice (Ciborra, 1997). The use of borrowed theories and macro-level thinking has led to a lack of focus on how alignment evolves and what practices support it (Peppard et al., 2014). Campbell (2005) suggests that operationalising alignment remains unclear as there is little academic knowledge on how organisations plan, design, and carry out alignment. Tallon et al. (2016) note that current measures do not clearly show whether IS is used as a support tool or a strategic enabler. Often, both are combined without clear distinction.

In summary, while the strategic alignment and IS strategy literature has contributed valuable theoretical insights, it remains constrained by conceptual ambiguity, limited operational detail, and insufficient attention to the social and practical dimensions of alignment. The lack of clarity on processes, artefacts, and engagement mechanisms, combined with inconsistent measurement approaches, underscores the gap between theory and practice. Addressing these shortcomings is essential for developing frameworks that not only explain strategic alignment conceptually but also guide organisations in achieving and sustaining it in dynamic business and technology environments.

2.4 Definition of Engagement with Executive Managers

The Researcher defines the “Executive Managers” as the underlying first level reporting structure below Chief Executive Officer, General Manager or Managing Director. This includes the directors of business functions within the organisation. Executive managers are considered to drive the overall management of the performance of the organisation, and responsible and accountable to the Board to ensure the organisation’s strategic plan is in place (Solomon, 2020).

Several influential definitions have shaped the discourse on stakeholder engagement. Greenwood (2007, p. 317) defines it as “the practices that the organisation undertakes to involve stakeholders in a positive manner in organisational activities,”

while Manetti and Toccafondi (2012, p. 365) emphasise its dynamic and dialogical nature, describing it as “a process that creates a dynamic context of interaction, mutual respect, dialog, and change, not a unilateral management of stakeholders”. Similarly, O’Riordan and Fairbrass (2014) frame stakeholder engagement as activities designed to create opportunities for dialogue to inform organisational decisions, and highlight its inclusive nature in decision-making processes.

Overall, stakeholder engagement is an intentional activity with explicit or implicit aims linked to participants’ interests (Nalick et al., 2016), often incorporating a strategic dimension that focuses on stakeholders’ willingness to contribute resources to enhance outcomes such as performance, reputation, and competitive advantage.

2.4.1 Executive Engagement in Strategic Management Literature

Stakeholder engagement research is deeply rooted in stakeholder theory (Freeman, 1984), which positions stakeholders at the centre of strategic thinking and emphasises relationships as a primary focus of analysis (Kujala et al., 2022). Many scholars in business and society, as well as management and strategy literature, conceptualise stakeholder engagement as a practical application of stakeholder theory (Freeman et al., 2017; Greenwood, 2007). The construct of stakeholder engagement began to gain prominence in the early 2000s (Andriof et al., 2002) and has since been widely used to operationalize stakeholder theory (Freeman et al., 2017; Greenwood, 2007). This evolution reflects a natural continuum from understanding stakeholder relationships to actively engaging them in organisational processes.

Stakeholder theory is a framework for understanding and managing the relationships between an organisation and its stakeholders which are defined as individuals, groups, or organisations that affect or are affected by organisational activities (Freeman, 1984). Stakeholder theory places stakeholders at the centre of strategic thinking and positions relationships with stakeholders as a key focus of analysis. It argues that value creation in organisations is a collaborative process involving multiple parties, and that ethical, strategic, and pragmatic considerations should guide organisational decision-making (Freeman et al., 2010; Greenwood, 2007). The stakeholder theory has three nested aspects: its descriptive aspect presents and

explains external relationships; its instrumental aspect provides predictive value, implying that if certain practices are followed, certain outcomes will be achieved; and its normative aspect assumes that managers and other agents act as if all stakeholders' interests have intrinsic value (Donaldson and Preston, 1995).

Stakeholder management is related to a fundamental conception of what is an organisation, that is a relationship between individuals in its basic form - and a system of cooperation in its most advanced form (Barnard, 1968). Executive Managers are stakeholders who establish goals for the organisation, establish its resource levels and approve its structure (Wyzalek, 2022). Executive Managers are responsible for overseeing the organisation's overall performance and are accountable to the Board for ensuring that a strategic plan is established and effectively implemented (Solomon, 2020). Executive Managers are responsible for value creation and performance to drive the organisation to reach its goals and objectives and, therefore are considered as stakeholders in organisations' success or failure in the context of the stakeholder theory (Friedman and Miles, 2006; Freeman, 2010). Executive Managers are expected to keep the interests of the customers, suppliers, employees, communities and shareholders aligned and working in the same direction (Friedman and Miles, 2006). Executive Managers are also involved in IS strategy and planning, as their support of, and involvement in IS initiatives considered as crucial to planning success (Ragu-Nathan et al., 2004; Young and Jordan, 2008; Hughes and McDonagh, 2021).

Executive Managers can generally be considered as definite stakeholders as they possess Power (stakeholders' ability to influence the outcome), Legitimacy (level of involvement or authority that a stakeholder has) and Urgency (time expected by a stakeholder for responses to their expectations) according to Stakeholder Salience Model (Mitchell et al., 1997 and 2017). Ackermann and Eden (2011) argue that actors who initially were believed to have low power may actually have high power because of their ability to influence others via formal and informal networks.

In the context of strategic alignment between business and technology, some of the Executive Managers in the organisation may lack urgency, therefore they may become dangerous stakeholder and require attention. Alternatively some of them can be considered as dependent stakeholders due to the lack of power, but still can affect the success of the strategic alignment. Lawrence et al. (2012) define power as "the

dimension of relationships through which the behaviours, attitudes, or opportunities of an actor are affected by another actor, system, or technology" (p. 105). Based on the other stakeholder models in the literature focusing on power and interest (Mendelow, 1991), Executive Managers who have low interest in the strategic alignment between business and IS would pose challenges for the organisation to achieve the return on investment on technology spend. The presence of power embodied in the Executive Managers reflect negotiations and dialogue within social interactions that occur during strategic alignment process (Whittington, 2014; Marabelli and Galliers, 2017).

The stakeholder model introduced by Friedman and Miles (2002) considers the relationship of the stakeholder and organisation in two main dimensions including being either compatible or not of any material interests between them, and the nature of the relationship being based on necessity or contingency. While Executive Managers are considered as compatible and necessary stakeholders, they are also responsible for managing the incompatible, necessary and contingent stakeholders of the organisation. In the context of the strategic alignment between business and IS, Executive Managers have the responsibility to engage and manage the relationships and risks posed by those stakeholder categories in relation to their potential negative impact.

There are a few other theories in the literature that consider the relationships of Executive Managers. Agent theory (Mitnick, 1975; Eisenhardt, 1989; Dalton et al., 2007) is based on the idea that Executive Managers monitor and control their subordinates' behaviour based on trust, control and fear driven by the potential consequences (Derakhshan et al., 2019; Zwikael and Smyrk, 2015). Stewardship theory (Donaldson and Davis, 1991; Toivonen and Toivonen, 2014) focuses on the relationship between two internal stakeholders with an emphasis on the organisation's long-term performance, trust building and mutual value creation. The authors suggest that Executive Managers are motivated better by organisational objectives compared to their personal interests and long-term performance of the organisation that would improve their position within the organisation.

Jenkin et al. (2019) have identified three conceptions for stakeholder engagement including *the depth of stakeholder engagement* referring to the amount of information shared; *the scope of stakeholder engagement* referring to number of engaged groups, the directionality of information flow between them and their proximity to sense-making and

sense-giving; and finally *the timing of stakeholder engagement*, referring to the examination of timing of events which is rooted in process research (Van de Ven, 2007).

Ackermann, Eden and McKiernan (2024) identify five critical factors for effective stakeholder management: determining the nature of stakeholders, separating levels of engagement, considering both internal and external actors, attending to stakeholder responses, and managing the consequent dynamics. These findings reveal that executive engagement is not static or one-dimensional, but rather a dynamic, context-sensitive process that involves ongoing negotiation, boundary setting, and response to stakeholder feedback.

2.4.2 Executive Engagement in Strategic Alignment Literature

Stakeholder engagement processes typically involve dialogue and collaboration, which foster mutual understanding, learning, and awareness-building as well as the exchange of knowledge and resources. High-quality engagement often takes the form of co-creation and co-production, where organisations and stakeholders work together to diagnose challenges, generate knowledge, develop capabilities, and design solutions (Bridoux and Stoelhorst, 2016). These collaborative activities extend to informing jointly owned decisions and implementing solutions (Herrera, 2016). Such interactions not only produce tangible outcomes but also strengthen relationships and contribute to the development of effective strategies.

The nature of the working relationship between the Executive Managers is key to facilitating strategic alignment (Chan, 2001; Luftman et al., 2008; Preston, Chen and Leidner, 2008). Chan and Reich (2007a) argue that strategic alignment should be studied under new theoretical underpinnings such as stakeholder theory. Freeman (1984) defines stakeholders as “any group or individual who can affect or is affected by the achievement of an organisation’s purpose” (p. 53), but also warns that the stakeholder concept is deceptively simple. Effective stakeholder management requires an understanding and identification of the stakeholders, their perceived stakes in the organisation, the processes organisations use (implicitly and explicitly) to manage stakeholder relationships (Freeman, 1984).

Karahanna and Preston (2013) considers social alignment as the intention of multiple stakeholders to work together to collectively build trust and learn how to exchange knowledge so they can coordinate with each other to establish operational alignment (Trang et al., 2022). Social alignment has received increased attention in the last decade (Wagner et al., 2014; Schlosser et al., 2015; Wu et al., 2015; Gerow, 2020; Sha et al., 2020), as it enables Executive Managers to develop a shared understanding and a shared domain knowledge (Armstrong and Sambamurthy, 1999; Chan, 2001; Bassellier and Benbasat, 2004).

Social alignment is intangible (Gerow, 2020) and defined by the coordination, communication, understanding, trust, and social capital that occurs between organisational actors (Nahapiet and Ghoshal, 1998; Kearns and Sabherwal, 2006; Gerow, 2020). Social capital is defined as the "sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, p. 243). The authors also conceptualise three dimensions of social capital which act as enablers including structural (overall pattern of connections between the actors), cognitive (common domain knowledge and systems of meaning between the parties) and relational (assets that are rooted in the relationships, such as trust). Gerow et al. (2016) suggests that when executives are socially aligned, they are able to demonstrate higher levels of social capital and engagement to ensure appropriate positioning and use of IS within the organisation, however it is still unclear how social alignment impacts different strategic alignment types (Gerow, 2020) or how social alignment can be facilitated given its complexity (Ullah and Lai, 2013).

Through a meta-analysis study aimed to explore the unique relationships between alignment types within the strategic alignment literature, (Gerow et al., 2016) found that "intellectual alignment influences operational alignment, the alignment types have unique relationships with the different performance types, and social alignment influences intellectual alignment but may not influence operational alignment" (p. 548). Stakeholder engagement in strategic alignment literature has been operationalised as follows;

Table 5 - Operationalisation of Stakeholder Engagement in Strategic Alignment

Variable	**Reference**
IT manager presence in business planning	(Lederer and Mendelow, 1989)
Involving IT in strategy development, and close relationship between IT and business	(Luftman and Brier, 1999)
Frequent relationship between IT and its users	(Teo and Ang, 1999)
Communication between business and IT executives and connections between business and IT planning	(Reich and Benbasat, 2000; Hussin et al., 2002)
Relationship between IT and business executives engaging IT managers with business	(Campbell, 2005)
Collaborative relationship	(Li et al., 2006)
IT manager's participation in business planning, business managers' participation in IT planning	(Kearns and Sabherwal, 2006)
Perceived communications on business-IT Strategies to employees and perceived knowledge on business-IT strategies	(Chong et al., 2011)
Employee communication	(Wong et al., 2012)
CIO and CEO engagement	(Karahanna and Preston, 2013)
Top management support and IT representation on the executive board	(Schlosser et al., 2015)
Open and trust-worthy communication, high reciprocal commitment and support, close cooperation and strong relationships between business and IT executives	(Alaceva and Rusu, 2015)
IS planning maturity	(Shimada et al., 2019)
Interacting with users	(Tai et al., 2019)

As outlined above, it is clear that in the strategic alignment literature, stakeholder engagement - particularly engagement with the Executive Managers - is typically operationalised through structural and relational indicators. While these studies provide foundational insights into alignment mechanisms, they often lack thick descriptions of how executives engage in practice and what they contribute to the strategy alignment process. This research will aim to address this gap by conducting a processual inquiry on the nature of engagement of Executive Managers throughout the strategic alignment process.

2.4.3 Executive Engagement in this Research

This research aims to investigate the creation and sustenance of strategic alignment between business and IS strategies, with a particular focus on the process and artefacts involved, as well as the nature of engagement with Executive Managers during this process. The primary objective of this study is to explore how Executive Managers engage with the creation and sustenance of strategic alignment between business and IS strategies, by identifying the phases and stages of strategic alignment work as it unfolds over time, determining specific alignment-related activities, including the definition of key artefacts' content outline, executed in each phase/stage, and

analysing the approach and nature of engagement with Executive Managers governing the identified strategic alignment activities during the respective phases/stages.

Existing literature typically conceptualises executive engagement through structural indicators (e.g. IT manager presence in planning meetings, representation on executive boards) and relational constructs (e.g. communication frequency, trust, collaboration). While these dimensions are important, they tend to offer a surface-level view of engagement, focusing on where executives are present and how often they interact, rather than focusing on the nature of the engagement, "inputs" (i.e. what they contribute and provide, how and what they influence, and why their involvement matters) and "outputs" (i.e. what they gain and get out of their engagement, how and what they achieve).

To deepen this understanding, the research also draws on the stakeholder engagement framework proposed by Jenkin et al. (2019), which identifies three key dimensions; the depth of engagement (i.e. the amount and richness of information shared), the scope of engagement (i.e. the number and diversity of stakeholder groups involved, the directionality of information flow, and their proximity to sense-making and sense-giving), and the timing of engagement (i.e. when stakeholders are involved).

This research also draws on the Stakeholder Salience Model (Mitchell et al., 1997; 2017) to further refine the understanding of executive engagement. The Stakeholder Salience Model provides a framework for evaluating the prominence of stakeholders based on their power, legitimacy, and urgency. This model helps explain why Executive Managers are central to the strategic alignment process, not only because of their formal authority and strategic responsibilities, but also due to the immediacy and significance of their decisions in shaping IS strategy outcomes. By applying this model, the research acknowledges that executive engagement is not uniform; rather, it varies in intensity and influence depending on the salience attributes present at different stages of the alignment process. This perspective complements the depth, scope, and timing dimensions of engagement (Jenkin et al., 2019), offering a more granular view of how and why Executive Managers are engaged, and how their contributions evolve in response to organisational priorities and strategic pressures. These dimensions provide a valuable lens for examining how and when Executive Managers are engaged in strategic alignment process, and how their involvement evolves over time.

2.5 Preliminary Conceptual Framework

A conceptual framework consists of a selection of concepts and relations among them, explained either in narrative form or graphically to present the major concepts simultaneously and their relations. (Pare and Elam, 1997). Miles, Huberman and Saldaña (2019) consider conceptual frameworks the current and evolving version of the researcher's map of the qualitative territory being investigated. Ravitch and Riggan (2017) view a conceptual framework as a visual representation of a study's main theoretical tenets or concepts. Therefore, a conceptual framework becomes researcher's first cut at making some explicit theoretical statements because of the intellectual sorting work (Miles and Huberman, 1994). Conceptual framework is inductively derived and evolutionary model to identify key concepts and indicate interrelationships (Miles, Huberman and Saldaña, 2019).

The strategic alignment and IS strategy literature identifies persistent limitations that this research seeks to address. Although numerous models and frameworks have been proposed, they frequently lack actionable guidance and process detail for practitioners. There is insufficient clarity on the phases and activities of alignment, limited attention to the content and artefacts of IS strategy, and superficial treatment of executive engagement - particularly regarding what executives contribute, how they engage, and what they gain throughout the process. Much of the field remains conceptual and static, prioritising abstract constructs and linear representations of alignment as a fixed end-state rather than as an ongoing, adaptive endeavour. As a result, extant literature on strategic alignment under-specifies the "how" of alignment and provides only limited grounding in the tangible outputs and decision points that enact cross-domain alignment in practice.

The presented conceptual framework below reflects the research question (including sub-questions as mapped in the diagram below) and aligned with theoretical insights outlined in Chapter 2, and it will be subject to ongoing refinement as the research progresses. The revised conceptual framework presented in Chapter 5 should be understood as an empirically grounded refinement of the preliminary conceptual

model shown below, rather than a repudiation of it. The original version is intentionally retained here to reflect the Researcher's perspective at the early stages of the research.

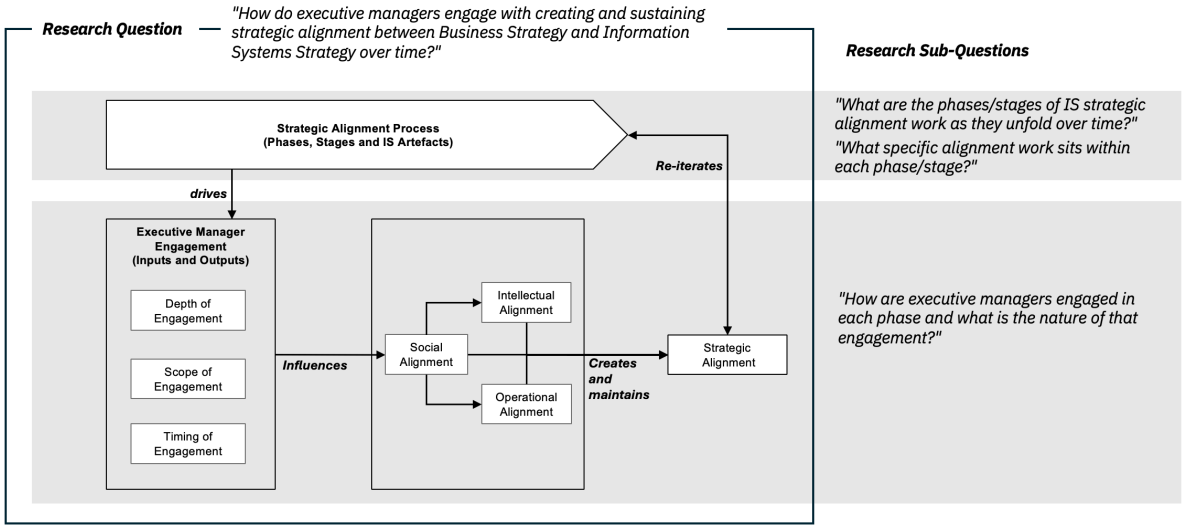


Figure 8 - Preliminary Conceptual Framework

By visually and conceptually linking the research questions to the framework, the research establishes a clear analytical pathway from empirical inquiry to theoretical development. This approach ensures that the subsequent qualitative methodology and research methods as outlined in Chapter 3 are grounded in a coherent conceptual structure, facilitating transparency and methodological alignment throughout the thesis.

This study draws on three complementary theoretical perspectives to frame strategic alignment as a dynamic, engagement-centric process:

- Strategic Alignment Model (SAM): SAM clarifies alignment domains and linkages and remains foundational as a conceptual map; however, it offers limited guidance on process sequencing, executive routines, or artefact-mediated decision points required to operationalise alignment (Henderson and Venkatraman, 1993).
- Co-evolutionary Perspective with Enterprise Architecture view: A co-evolutionary perspective reframes alignment as dynamic and iterative, shaped by continuous feedback between business and IS domains. It foregrounds learning, recalibration, and mutual shaping, positioning alignment as an emergent outcome rather than a predefined end-state (Benbya and McKelvey, 2006; Peppard and Breu, 2003; Hiekkanen et al., 2013). This perspective is combined with

Enterprise Architecture view as a mediating perspective and operate as material boundary objects (IS artefacts) that stabilise meanings (social alignment) by means of structured documentation, set boundaries for agreed design (intellectual), and accelerates delivery success (operational).

- Stakeholder Theory and Engagement: Grounded in Stakeholder Theory and three main conceptions (depth, scope, and timing) (Jenkin et al., 2019), the research conceptualises executive engagement with multi-directional information flows supporting sensemaking and sense-giving (Donaldson and Preston, 1995; Chan et al., 2007; Marabelli and Galliers, 2017; Gerow et al., 2020; Mitchell et al., 2017). A process-oriented research perspective further situates alignment work in its temporal and contextual unfolding (Pettigrew, 2012; Van de Ven, 2007; Sminia, 2015). While the process perspective is central, this research also draws on Strategy-as-Practice to examine the role of artefacts. Empirical studies indicate positive relationships between social and intellectual alignment, and possibly operational alignment, underscoring the importance of engagement with Executive Managers (Reich and Benbasat, 2000; Alaceva and Rusu, 2015; Gerow, 2020; Gerow et al., 2016).

To address the identified gaps, this research proposes a preliminary conceptual model as outlined above that positions strategic alignment as a stakeholder-driven, cyclical process. The model explicitly connects phases/stages, executive engagement (inputs and outputs), and IS artefacts through which alignment is enacted.

Core elements of the preliminary conceptual framework are outlined below.

- Bridging SAM (Map) to Process (Journey): SAM (Henderson and Venkatraman, 1993) provides the structural map of domains and linkages; the proposed model delineates the journey - the phase sequencing, engagement routines, artefact usage, and decision points - through which cross-domain alignment is actually achieved.
- Phases/Stages of the Process with Feedback Loops and Recalibration: Strategic alignment unfolds through a sequence of phases and stages rather than prescribing a single linear pathway, the model adopts iterative cycles consistent with co-evolutionary view.

- IS Artefacts: Each of the phases and their stages produce or refine clearly defined IS artefacts (e.g., structured documents, models, and representations) that mediate decisions across business and IS domains. Artefacts serve as the operational nexus between intent and action, anchoring discussions, trade-offs, and approvals at formal decision points aligned with Enterprise Architecture view of strategic alignment.
- Executive Engagement (Depth, Scope, Timing): Executive engagement (Jenkin et al., 2019) is characterised and assessed by its depth (intensity and quality of involvement), scope (breadth across functions and domains), and timing (when and how leaders intervene). Engagement is treated as bidirectional and continuous, with attention to sensemaking and sense-giving close to critical decision points. Explicit feedback loops connect artefacts, engagement, and decisions across phases, enabling recalibration as contextual conditions change. Alignment is thus modelled as ongoing work rather than a one-off achievement aligned with co-evolutionary perspective.
- Inputs and Outputs of Engagement: The model specifies the inputs and outputs of executive engagement, enabling thick descriptions of who contributes and gains what, when, and to what effect.

While co-evolutionary models have advanced theoretical understanding, the literature continues to lack a clear and detailed definition of the strategic alignment process. The preliminary conceptual framework responds by offering an operational view that renders the process observable, traceable, and assessable at the level of phases, engagement, and artefacts, thereby addressing the absence of “thick descriptions” in prior frameworks.

This research contributes to the strategic alignment discourse in four ways:

- Process-Centric Operationalisation: It specifies alignment as a phase-based, cyclical process with explicit engagement routines, artefacts, and decision points, thereby operationalising the “how” (journey) of alignment (extending beyond the structural clarity of SAM) (Chan and Reich, 2007a; Luftman et al., 2017; Dairo et al., 2021; Őri & Szabó, 2024).
- Thick Descriptions of Executive Engagement: It develops a structured account of inputs and outputs of executive engagement (what executives provide,

contribute, or do, and what they achieve or receive), addressing a central gap in the literature (Reich and Benbasat, 2000; Alaceva and Rusu, 2015; Gerow et al., 2016; Gerow, 2020).

- Artefact-Centred Alignment Work: It foregrounds IS artefacts, aligned with Enterprise Architecture view of strategic alignment as the mediating devices through which alignment is enacted and governed across domains, enhancing traceability and practical applicability (Karpovsky and Galliers, 2015; Moeini et al., 2019; Hughes and McDonagh, 2021).
- Dynamic and Iterative View: It embeds feedback loops and recalibration mechanisms to reflect the dynamic nature of strategic alignment in changing organisational and technological contexts aligning to the co-evolutionary perspective (Benbya and McKelvey, 2006; Peppard and Breu, 2003; Hiekkanen et al., 2013).

Guided by this preliminary conceptual framework, this research seeks to define and explain the strategic alignment process - including its phases/stages, engagement mechanisms (depth, scope, timing), and associated IS artefacts - so as to clarify how alignment is created, sustained, and re-iterated over time. The resulting account is intended to support both scholarly understanding and managerial practice by offering granular, actionable descriptions suitable for evaluation, replication, and improvement.

2.6 Conclusion

This chapter provided a comprehensive review of the extant literature on Strategic Alignment that have evolved over time since the entry of IT function to the boardroom.

The preliminary conceptual framework presented in this chapter reflects the research question and objectives, while serving as a starting point for developing the research approach and design, which are further detailed in the next chapter.

3 Research Strategy Design and Execution

This chapter outlines and justifies the research strategy and methodological choices that underpin this study. It explains how the philosophical position, research design, data collection methods, and analytical techniques were selected, integrated, and operationalised to address the research question and sub-questions.

The chapter proceeds in a logical sequence, moving from high-level philosophical assumptions to the practical steps taken to design and execute the research design for this thesis. Section 3.1 restates the research question and sub-questions and explains how they inform the overall research design. Section 3.2 introduces the philosophical assumptions and paradigmatic considerations that underpin the study. Building on this, Section 3.3 discusses the philosophical traditions within the IS domain and outlines the rationale for adopting an interpretivist/constructivist epistemological stance, including its implications for examining strategic alignment as a socially constructed phenomenon. Section 3.4 presents the methodological choice, while Section 3.5 defines the specific research method employed by synthesising how these methodological decisions collectively support both the empirical inquiry and the theoretical aims of the study. Section 3.6 details the execution of the research design, including case selection, data collection, and data analysis procedures, and summarises the key considerations applied throughout the process. Section 3.7 reflects on how the chosen research strategy and design shape and refine the preliminary conceptual framework introduced in the previous chapter. Finally, Section 3.8 concludes the chapter by preparing the reader for the empirical narratives presented in Chapter 4.

3.1 Overture

The Researcher followed a structured approach to choose a research design and methodology for this thesis guided by the research question (Blaikie, 2007; Flick, 2018; Miles, Huberman and Saldaña, 2019; Saunders et al., 2023), which is: “How do executive managers engage with creating and sustaining strategic alignment between Business

Strategy and Information Systems Strategy over time?" - supported by the following underlying sub-questions.

- What are the phases/stages of IS strategic alignment work as they unfold over time?
- What specific alignment work sits within each phase/stage?
- How are executive managers engaged in each phase and what is the nature of that engagement?

A research design can be described in its essence as "the logical sequence that connects the empirical data to a study's initial research questions and, ultimately to its conclusions" (Yin, 2014, p. 28). Flick (2018) suggests that a research project should be built on the foundation of its research questions as the reflection on the research question enables the researcher to determine the appropriate research strategy and methodological choices. Bryman (2008) highlights the importance of the research question as a point of orientation linking the researcher's literature review to the kinds of data that will be collected. Researchers should reflect their own biography and personal interests in finalising their research strategy and methodological choices while utilising the existing body of research in their own field of research (Flick, 2018).

The remaining sections of this chapter describe and evaluate the range of epistemological and ontological positions that were considered to evaluate the suitability of different positions for this research.

3.2 Research Paradigms and Philosophical Assumptions

Kuhn (1962) was the first philosopher who used the word "paradigm" to mean a philosophical way of thinking. The word has its aetiology in Greek where it means pattern. According to Lincoln and Guba (1985), a paradigm comprises four elements, namely, - epistemology, ontology, methodology and axiology – which includes the basic assumptions, beliefs, norms and values that each paradigm holds. Paradigms are noted to "impact on the nature of a study by describing what is being studied as well as the manner in which the study is conducted" (Krauss, 2005, p. 758).

The term “research philosophy” refers to a system of beliefs and assumptions about the development of knowledge (Saunders et al., 2023), and is a foundation of social science research, influencing the choice of research methods (Crossan and Berdrow, 2003; Creswell, 2007). According to Crotty (1998), research’s philosophical assumptions inform the research methodology and provide a context for the process and for the grounding of its logic and criteria. Morgan (2007) suggests that assumptions on research philosophy provides a different and distinctive “way of seeing” organisational realities.

Burrell and Morgan (2019) suggest that there are four sets of assumptions: ontology, epistemology, human nature and methodology. Epistemological assumptions concern the nature of knowledge and how it can be acquired and ontological assumptions reflect the researcher’s view about the nature of the world (Guba and Lincoln, 1994; Saunders et al., 2023). Human nature assumptions focus on the relationship between human beings and their environment, and methodology is the last set of assumptions concerning the selection of an approach to investigate and obtain knowledge about the social world (Creswell, 2007; Burrell and Morgan, 2019).

Research paradigms represent the mental window through which the researcher views the world (Bailey, 2008). Lather (1986) defines research paradigm as an inherent reflection of the researcher’s beliefs about the world. It is the lens through which a researcher looks at the world and examines the methodological aspects of their research project to determine the research methods that will be used and how the data will be analysed. Guba and Lincoln (1994) define research paradigm as a basic set of beliefs or worldview that guides research action or an investigation. Denzin and Lincoln (2011) define paradigms as human constructions, which deal with first principles indicating where the researcher is coming from, and how meaning was constructed from the data collected and analysed. Morgan (2007, p. 49) defines the term as “... all-encompassing ways of experiencing and thinking about the world, including beliefs about morals, values, and aesthetics”. Defining research paradigms as models or frameworks comprises an inclusive belief system or world view, as well as “framework that influences research and practice in a field” (Willis, 2007, p. 8).

Burrell and Morgan (2019) outline four dominant paradigms consisting of functionalist, interpretivist, radical structuralist and radical humanist paradigms.

Orlikowski and Baroudi (1991) suggest three dominant paradigms of positivism, interpretivism and the critical paradigm. Guba and Lincoln (1994) propose four distinct paradigms including positivism, post-positivism, critical theory, and constructivism. Creswell et al. (2011) define four main paradigms that researchers use when conducting social science research, including post-positivism, social constructivism, participatory, and pragmatism. According to Crossan and Berdrow (2003), the four most extensively used paradigms in research are pragmatism, interpretivism, positivism, and post-positivism.

3.3 Information Systems as a Research Domain

IS field has grown out of the nexus of computer science, management and organisation theory, operations research, and accounting (Davis and Olson, 1984). The discipline has evolved specifically focussing on the application of computers in organisations (Hirschheim and Klein, 2012). Based on its nature, IS field of research is rooted in different basic fields such as psychology, sociology, system science, management, economics, and strategy with these fields contributing toward IS emergence and growth.

As the research in the IS field examines the phenomena that emerge when both technological system and social system interact (Lee, 2001), pragmatic pluralism has led IS discipline to become a multiple paradigm discipline (Hirschheim and Klein, 2012). The multidisciplinary nature of this field drives controversial debates about the main origin, focus, and scientific contribution of IS and how it could survive and grow as a discipline (Teo and Srivastava, 2007).

IS research has long been dominated by two paradigms of research labelled positivism and interpretivism (Walsham, 2006). Positivism is mainly concerned with the testing, confirmation, falsification and predictive ability of generalisable theories about an objective, readily apprehended reality (Orlikowski and Baroudi, 1991). Interpretivism instead focuses on understanding the subjective meanings that participants assign to a given phenomenon within a specific, unique context (Klein and Myers, 1999; Orlikowski and Baroudi, 1991; Walsham 2002). Based on meta-analytic view of IS research

published in the Information & Management (I&M) academic journal from 2004 to 2014, a vast majority of I&M papers (85%) use the positivist paradigm (Palvia et al.,2017). This number is 51% for European Journal of Information Systems (EJIS), and 60% for Management Information Systems Quarterly (MISQ). On the same study, interpretivist paradigm is utilised at 11% in I&M, 40% in EJIS, and 30% in MISQ. Sarker et al. (2020) reports the most prominent research approaches as positivist paradigm with 54%, and interpretivist paradigm with 29% based on a total of 224 papers published in Journal of the Association for Information Systems (JAIS) between 2013 and 2019.

The following subsections will outline the research design decisions that are made by the Researcher and his relevant justification of the choices made.

3.3.1 Ontology

Ontology is concerned with the nature of reality and the existence of social entities in research (Bryman, 2008; Walsham, 2002; Saunders et al., 2023). It refers to the assumptions we make about what exists in the world and how we understand its structure and properties (Iivari, Hirschheim and Klein, 1998). Crotty (1998) defines ontology simply as the study of being, while Gruber (1995) describes it as the specification of a conceptualisation. Burrell and Morgan (2019) explain that ontology is about the essence of the phenomena being studied. Su (2018) adds that ontology asks whether reality exists independently of human perception or is shaped by individual consciousness.

Ontology is also linked to the pursuit of truth and the form that reality takes (Runes, 2001; Williams, 1989). Ontological positions can be seen as a spectrum. At one end is the realist or objective stance, which assumes that reality exists independently of human perception and follows natural laws (Smircich, 1983; Guba and Lincoln, 1994; Burrell and Morgan, 2019). In this view, the social world is made up of tangible structures that exist whether people are aware of them (Smith, 1983). Researchers who adopt this stance believe that reality can be studied without considering individual interpretations.

At the other end is the relativist or subjective stance, also referred to as nominalism or conventionalism (Burrell and Morgan, 2019). This view holds that reality is socially constructed through human thought, experience, and interpretation (Guba and Lincoln, 2005; Johnson and Duberley, 2000). Social phenomena are shaped by individuals' consciousness and described using names, concepts, and labels (Smith, 1983; Smircich, 1983). For example, concepts like "culture" or "strategic alignment" are not fixed entities but are created and understood differently depending on context and perspective (Jonassen, 1991).

This research focuses on understanding how strategic alignment is created and sustained, including the processes, artefacts, and the nature of engagement with Executive Managers. It explores intangible elements such as meaning, interaction, and interpretation. The Researcher believes that reality in this context is subjective and shaped by the organisational setting. A universal or fixed understanding of strategic alignment is not possible because it depends on the specific context in which it occurs. Therefore, adopting a realist ontological stance would not be appropriate for this study.

This research focuses on the strategic alignment process and the nature of engagement with Executive Managers, which involves individual interactions, personal values, lived experiences, and subjective interpretations. These elements are difficult to represent independently of the people involved, making a realist ontological stance unsuitable for this study. Therefore, this research adopts a relativist ontological position, based on the assumption that reality is socially constructed. The strategic alignment process and the nature of executive engagement are shaped by social entities such as individual values, experiences, and interpretations. As Burrell and Morgan (2019) explain, nominalism allows researchers to use these social constructs to describe and understand reality. It is difficult to view such phenomena purely in terms of tangible, objective structures without acknowledging the role of artificial creations - such as concepts, labels, and shared meanings - that help individuals make sense of their organisational world.

3.3.2 Epistemology

Epistemology is the study of knowledge. It explores how we know what we know and how we understand the world around us (Crotty, 1998). Bryman (2008) describes epistemology as a theory of knowledge that helps explain how knowledge is built and whether it is valid and reliable. Cohen, Manion and Morrison (2007) define it as the assumptions we make about the nature of knowledge - its form, how it is acquired, and how it is shared. Lincoln and Guba (2013) describe epistemology as the relationship between the person who knows and what can be known. Burrell and Morgan (2019) explain that epistemology involves assumptions about what counts as acceptable and legitimate knowledge, and how it can be communicated.

In the natural sciences, epistemology is less debated because knowledge is often seen as objective and measurable. In contrast, in the social sciences, epistemology plays a more central role (Hassan, Mingers and Stahl, 2018). The assumptions researchers make about knowledge strongly influence how they study social behaviour (Cohen et al., 2007).

Different researchers have proposed various ways to think about epistemology. Burrell and Morgan (2019) identify two main positions in social science: positivism and anti-positivism. Positivism sees knowledge as hard, objective, and based on facts. It focuses on finding cause-and-effect relationships. Anti-positivism views knowledge as soft and subjective, aiming to understand patterns in human behaviour and social actions.

Objectivist epistemology assumes that reality exists independently and can be discovered. In contrast, subjectivist epistemology sees reality as something created through human experience and interpretation. Crotty (1998) adds constructivism to this discussion and explains that subjectivism and constructivism, while similar, are not the same. Subjectivism suggests that meaning is placed on objects by individuals without any interaction with the object itself. In other words, meaning exists only in the mind of the person. Constructivism, however, argues that meaning is formed through the interaction between the person and the world. It recognises that people construct meaning together, and that different individuals or cultures may interpret the same phenomenon in different ways. Constructivism also rejects the idea of a single, objective

truth waiting to be discovered. Instead, it sees truth and meaning as created through engagement with the world.

These epistemological views influence how researchers approach their studies. Crotty (1998) explains that theoretical perspectives, such as interpretivism, are shaped by epistemological assumptions. Interpretivist research looks for culturally and historically informed understandings of social life. It aligns with constructivist and subjectivist epistemologies and supports the idea that multiple viewpoints exist. Researchers using this approach aim to understand participants' perspectives and co-create meaning during analysis. Charmaz (2017) suggests that researchers should reflect on how they themselves shape the realities they study. Schwandt (2000) adds that the interaction between a researcher's prior beliefs and new insights can lead to deeper understanding. Denzin and Lincoln (2011) describe the constructivist-interpretivist paradigm as assuming multiple realities and emphasising the shared creation of knowledge through interaction. Punch and Oancea (2014) also highlight that researchers build knowledge based on their own experiences in real-world settings.

In the field of IS, researchers use a wide range of philosophical approaches to study complex social phenomena (Orlikowski and Baroudi, 1991). However, positivism and interpretivism are the most common. Mingers and Willcocks (2023) confirm that these two stances dominate IS research. Orlikowski and Baroudi (1991) argue that the dominant philosophical assumptions in a discipline influence how researchers choose their approach. Palvia et al. (2004, 2015) found that positivism has long been the leading research approach in top IS journals. However, the number of interpretive studies has grown significantly, especially between 2004 and 2013, suggesting that interpretivism is becoming a stronger alternative in the IS field.

This research adopts an interpretivist/constructivist epistemological stance, which is based on the idea that meaning is constructed through the engagement of our minds with the world (Crotty, 1998). This stance recognises that individuals may construct meaning in different ways, even when interpreting the same phenomenon. It assumes that knowledge is mediated by human interaction and interpretation, and that this ongoing interplay continuously shapes a collectively constructed social reality experienced in everyday organisational life (Sminia, 2015).

In investigating the strategic alignment process and the nature of engagement with Executive Managers therein, this research seeks to understand how meaning is individually and collectively formed through interactions with people and artefacts. To achieve this, it is essential to explore the in-depth perspectives of both IS and business executives. Their lived experiences and interpretations provide credible evidence that supports the study's aim of uncovering how strategic alignment is created and sustained in practice

In designing this research, the Researcher has considered alternative philosophical paradigms such as critical realism and pragmatism. Both offer valuable perspectives for IS research, however they were not adopted for this study. The rationale for this decision is outlined in Appendix 13.

3.3.3 Human Nature

According to Burrell and Morgan (2019), human nature is a set of philosophical assumptions concerning the relationship between human beings and the environment. According to the authors voluntarism and determinism are the two main views of this assumption, arguing which roles human beings play in the situations they face. Voluntarism is a human nature assumption that considers human beings to be completely free-willed in social phenomena. A human can develop his or her own thoughts and is considered as creator and controller of its own environment. Determinists assert that human beings are conditioned, predominated or controlled by external circumstances, and their activities are fully determined by the environment in which they are located.

This research inclines towards voluntarism of the human nature assumption, because the Researcher believes that the environment is created by human beings, and human beings are autonomous (Giddens, 1979; Bloomberg, 2022). Individuals and their activities in this research are free-willed, rather than determined by the situation or environment.

3.3.4 Axiology

Axiology is concerned with values and ethics (Saunders et al., 2023). Axiology can be traced back to the ancient Greek word axia, which means “value”. Therefore, axiology is the study of value, and investigating the value of knowledge comes from investigating the value it creates for people and their work contexts (Saunders et al., 2023). Hence, it can be achieved by investigating opinions of actors from business and IS functions - Executive Managers - through qualitative research.

3.3.5 Closure

This research adopts the relativist ontological stance, as the study assumes that the reality is socially constructed, and an interpretivist/constructivist epistemological stance, recognising that meaning is both interpreted and actively constructed through the interactions between researcher and participants (Charmaz, 2017; Crotty, 1998; Klein and Myers, 1999).

The adoption of a relativist ontological stance and interpretivist/constructivist epistemology directly informs the methodological choices in this research. By recognising that reality is socially constructed and that knowledge emerges through interaction and interpretation, the study employs a qualitative, longitudinal, multi-case approach. This enables an in-depth exploration of Executive Managers’ engagement with strategic alignment process within their unique organisational contexts while conducting a processual inquiry on the strategic alignment process. The use of semi-structured interviews, narrative analysis, thematic analysis, and grounded theory strategy for qualitative data analysis is consistent with the interpretivist paradigm, ensuring that the research design remains coherent with its philosophical foundations and is well-suited to uncovering rich, context-sensitive insights.

3.4 Methodology

Methodological assumptions are concerned with the way in which knowledge in the social world is investigated and obtained (Burrell and Morgan, 2019). There are two

paradigms of this assumption: the ideographic and the nomothetic. Methodology is a bridge between philosophical stances (ontology and epistemology) and how knowledge is produced (Hesse-Biber and Leavy, 2010). It is constrained by philosophical assumptions and may vary from ideographic to nomothetic in relation to the subjective-to-objective continuum (Burrell and Morgan, 2019). Mjoset (2009) argues that the methodologies of social science are determined "from above" by the philosophical orientation and "from below" by the research methods. Guba and Lincoln (1994) contend that questions of method are secondary to questions of paradigm which guide the researcher in ontologically and epistemological ways.

The methodological choice is characterised by justification of the data type required to be collected and analysed to answer the research question. The essence of qualitative research is based on the ontological assumption that reality is subjective and socially constructed. This contrasts with quantitative research which assumes an objective and independent reality (Guba and Lincoln, 1994). Qualitative research methods primarily collect data in the form of words and quantitative data is in the form of numbers (Easterby-Smith et al., 2012).

This research adopts the relativist ontological stance and the interpretivist/constructivist epistemological stance to investigate the strategic alignment process and its nature of engagement with Executive Managers, which is clearly not independent from social entities, such as individuals' value and experiences. Therefore, it is necessary to understand the in-depth perspectives of both IS and business executives, to obtain credible evidence to support the research. The relativist approach assumes the social world can be understood by obtaining first-hand knowledge of the subject under investigation. It emphasises to allow one's subject unfold its nature and characteristics during the process of investigation (Burrell and Morgan, 2019).

Qualitative research typically involves systematic and detailed study of individuals in natural settings, using open-ended interviews intended to elicit detailed, in-depth accounts of the interviewee's experiences and perspectives (Kaplan and Maxwell, 2005). Qualitative approach encourages using the method most appropriate to the phenomenon under investigation and adopting a problem centric approach where the research question drives methodological decisions (Hesse-Biber and Leavy, 2010). Methodological choice for this research is qualitative research that aims to empirically

investigate a variety of phenomena through qualitative data from a variety of sources, such as interviews, observations, design efforts, interventions, and archival materials (Conboy et al., 2012). Qualitative research studies things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them (Denzin and Lincoln, 2011). Qualitative research is appropriate when theory is nascent allowing for open ended data to be collected and interpreted for meaning (Edmondson and McManus, 2007).

This research will examine the engagement with Executive Managers in the context of the strategic alignment process in depth, and therefore qualitative research is the best fit (Sayer, 1992). This research adopts an ideographical position as qualitative research allows for the investigation of ‘‘naturally occurring, ordinary events in natural settings” and the gathering of rich and holistic data (thick description) which can reveal complexity and provide vivid descriptions which strongly impact the reader (Miles and Huberman, 1994, p.10). Furthermore, qualitative methodology is appropriate in building theory (Eisenhardt, 1989) or making a theoretical contribution (Whetten, 1989). Qualitative research is associated with an interpretive philosophy (Denzin and Lincoln, 2011) and based on meanings expressed through words and images and makes sense of how these meanings relate to the phenomenon being studied (Saunders et al., 2023). As the socially constructed reality is unique to a particular time and place, the basic stance of any explanation is contextualist (Pettigrew, 1990; Sminia, 2015). Interpretive research methods within interpretivist and constructivist epistemologies in IS are aimed at understanding the meanings imbued in human and social interaction, placing researchers in the social setting of the study and engaging with the participants to get a sense of how interactions take place from the participants’ perspective (Chen and Hirschheim, 2004).

3.5 Research Method

This research takes interpretivist paradigm based on relativist ontology and interpretivist/constructivist epistemology with a qualitative methodological choice to investigate the strategic alignment process and nature of engagement with Executive Managers.

As Mjoset (2009) argues that the methodologies of social science are determined “from above” by the philosophical orientation and “from below” by the research methods. This research will utilise the processual, contextually explanatory and longitudinal multiple case study method. The remainder of this section provides justification of this choice “from below”.

3.5.1 Case Study

Case-study research is an empirical method that investigates a contemporary phenomenon in depth within its real-life context, especially when the boundaries between phenomenon and context are not clear and requiring the researcher to utilise multiple sources of evidence (Yin, 2017). Case study is “a research strategy which focuses on understanding the dynamics present within single settings" (Eisenhardt, 1989, p.534).

Case study research has become one of the most common qualitative strategies in IS research over the last 30 years (Sarker et al., 2020; Almond and Hirschheim, 2024). According to Yin (2018), case study research is suitable when three conditions regarding the nature of the research are met. Firstly, case study is the most appropriate choice as research method when the research question is either a “how” or a “why” question. Secondly, case study is preferred when contemporary events are researched. Thirdly, case studies are useful when there is little or no control over the relevant behaviours. Case studies deal with operational links and processes which can be traced over time rather than with frequency or incidence (Benbasat et al., 1987; Kaplan and Maxwell, 2005).

Case studies motivate a research question or falsify an existing theory (motivation), inspire new ideas, provide rich data, or illustrate examples of existing constructs as applied to one or more empirical situations (Siggelkow, 2007). Gerring (2004) defines case study as “an intensive study of a single unit for the purpose of understanding a larger class of (similar) units." (p. 342)

Theory building from case-based studies is growing in popularity (Hoon, 2013), with a growing number of influential works (Palvia et al., 2015) emanating from the

approach and facilitating the generation of new insights and theories (Eisenhardt and Graebner, 2007; Siggelkow, 2007; Easton, 2010). Case studies may be longitudinal in nature (Pettigrew, 1990), which concerns the collection and analysis of data over time, which may be used to link the content, context, and processes of change over time. Kaplan and Maxwell (2005) iterate the value of the case study approach for qualitative research on the basis that the subject is studied within its real-life context, and the researcher has access to a broad range of primary and secondary qualitative data. Interviews allow the researcher to access multiple perspectives regarding the events, situations, actions, processes, and outcomes which have, or are, taking place, and elicit their views and aspirations within this context (Walsham, 2006).

Despite the growing popularity of case study research, a range of concerns have been voiced about the method including: the lack of a scientific approach including experimentation, lack of rigor in the research process, researcher's bias influencing the study, lack of generalisability of findings, and the massive overhead in terms of time taken and amount of data produced (Voss, et al., 2002; Wolcott, 2009; Yin, 2014). Maxwell (2009) suggests researchers to address rigour by making their influences and values explicit throughout the research process by being honest, transparent and open to verification. The question of generalisability is seen as "Achilles heel" for case-based researchers (Leavy, 1994), but researchers can use power of persuasion with their research (Mintzberg, 1979; Siggelkow, 2007). Pettigrew (1985) advises that even a single case study can develop and refine generalisable concepts and frames of reference although it cannot be statistically generalisable.

3.5.2 Processual Inquiry

Pettigrew (2012) considers that strategy is a continuous, iterative and uncertain process that occurs in given contexts, and strategy does not move forward in a linear direction. Processual research requires interpretation of patterns in events, and the logic of how and why these patterns occur in chronological sequences by exploring the context, content and process of change and dynamics together with their interconnections through time (Pettigrew 1990). Processual analysis aims to "catch

reality in flight" and study long term processes in their context (Pettigrew, Woodman, and Cameron, 2001).

Strategy process research requires longitudinal approach so that the researcher does not make assumptions about the nature of the process (Chakravarthy and Doz, 1992). Process research provides an explanatory theorising style focusing on how and why something happens in context (Cornelissen et al., 2021). Case study allows for a processual, contextual and longitudinal analysis of the various actions and meanings in an organisational setting (Yin, 2014; Sminia 2015). Case study method is flexible in design and has open-ended nature in data generation that allows the case(s) to be examined in considerable depth (Eisenhardt, 1989). Processual research challenges the rational, linear theories of planning and change as it cannot be disentangled from context (Pettigrew, 1990). Processual case study approach provides the researcher to continually test, evaluate and build on the theories being explored during the entire process, by moving forward and backward through the steps as necessary (Eisenhardt, 1989). Welch et al. (2022) state that "process theorising generates contextualised explanations in the form of narrative storyline and model that capture the process, context and mechanisms at work" (p. 13).

Sensemaking is the process of social construction that occurs when discrepant cues interrupt individuals' ongoing activity and involves the retrospective development of plausible meanings that rationalise what people are doing (Weick et al., 2005). Maitlis and Sonenshein (2010) considers sensemaking about connecting cues (data collected from the field) and frames (built based on cues) to create an account of what is going on.

The following inseparable definitions will be used in this research based on Pettigrew (2012).

Content refers to the substance of strategic decisions and actions taken by organisations to achieve their goals. It represents the outcome of the strategy process and reflects both the strategic stance and the specific actions chosen (Boyne and Walker, 2004). It answers the question of "what" underpins a firm's competitive advantage (Sminia, 2009). DeWit and Meyer (2004) describe strategy content as the actual business decisions and actions organisations take, while Chakravarthy and Doz (1992)

define it as the strategic positions that lead to optimal performance in different environments.

Pettigrew (2012) offers a more process-oriented view, defining content as the "particular areas of transformation under examination." This highlights the importance of understanding the substance of change within organisations. Rubin (1988, p.88) adds that strategy content is a "pattern of action through which organisations propose to achieve desired goals, modify current circumstances and/or realise latent opportunities."

In this research, strategy content includes both business and IS components. It covers areas such as the functional structure of the business, data, applications, users, and infrastructure, with a focus on the role of IS in supporting organisational goals (Brown and Magill, 1994; Luftman and Brier, 1999; Preston and Karahanna, 2009b; Sabherwal et al., 2019). It also includes the shared knowledge domain between business and IT (Reich and Benbasat, 1996; Chan et al., 2006; Zhou et al., 2018), the interaction between users and IS (Tai et al., 2019), the business value of IS (Oh and Pinsonneault, 2007; Schryen, 2013; Tallon et al., 2020), and the skills and capabilities required to leverage IS effectively (Teece, 2014; Tai et al., 2019). This broad view of content supports the study's aim to understand how strategic alignment is created and sustained through both business and IS strategies, and how Executive Managers engage with these processes and artefacts in practice.

Context refers to the "why" of change and divided into the inner (organisation's structure, culture, political landscape) and outer (social, economic, political, technological and competitive environment) contexts in which the firm operates (Pettigrew and Whip, 1992). Context with its inner and outer distinctions is impacted by the decision and actions that comes as a result of the execution of the process based on structuration theory as introduced by Giddens (1979). This involved the overall process as one in which agency and structure stand to each other in a mutual constitutive relationship. The continuous shift of focus between internal to the external domains and swings between a macro and micro level approach toward key issues in strategic management are considered as pendulums moving constantly and simultaneously (Guerras-Martín et al., 2014).

The context in this research will include IS related structures and processes supporting the business strategy and organisational capabilities. These will include inner and outer elements including the existing performance of IS (Chan et al., 2006; Tallon and Pinsonneault, 2011; Wagner et al., 2014), communications and stakeholder engagement in the organisation (Kearns and Sabherwal, 2006; Sabherwal and Kirs, 1994; Karahanna and Preston, 2013), advancements in the emerging and enabling technologies, business environment and key challenges impacting the network utility organisations (i.e. decarbonisation).

Process reflects the 'how' of change is understood holistically, across number of levels (embeddedness) and across the past, present and future (temporal interconnectedness) (Pettigrew, 1990). A process is a sequence of events that describe how things change over time (Van de Ven, 1992). Pettigrew (2012) defines process as a sequence of events that unfold over time within context and content. A process is a pattern that is seen in reference to time (Monge et al., 1984). Bowman and Ambrosini (2000) notes that processual approach to strategy tradition, which is still relevant, was introduced by institutionalists including Chandler in 1972, Ansoff in 1976, Mintzberg in 1978 and Quinn in 1980. They looked at the strategy from within the firm, looking out, and provided rich and thick descriptions of issues relating to strategy and the view of the managers. Strategy process research is "concerned with how a firm 's administrative systems and decision processes influence its strategic positions'' (Chakravarthy and Doz, 1992, p. 5). Langley (1999) emphasises that process research is concerned with understanding how things evolve over time and why and how they evolve in a particular way; therefore process data consists largely of stories about what happened and who did what when including events, activities, and choices made over time. Process is a set of sequential events consisting of both continuity and change according to Pettigrew (1990). His view is also further supported by Quinn (1980) who introduced the concept of "logical incrementalism" to outline organisational routines driven by formal and informal evolutionary processes within the internal and external network of organisations. In order to understand and explain the realisation of strategy, the performance as part of the process is included to provide coverage for what is happening outside the organisation in conjunction with what is happening inside (Sminia, 2009).

Researcher will trace the sequence of events within the strategic alignment process unfolding overtime. This research will employ longitudinal and multiple case study with processual approach driven by the research motivation to investigate Executive Manager engagement within the strategy content and process change over time. This requires the researcher to track the way in which a process plays out over time and leads to a specific outcome state at a specific moment in space and time (Sminia, 2015).

3.6 Research Strategy Execution

This section provides an account of how the study was conducted endeavouring to make explicit each aspect of the process.

3.6.1 Selection of Case Study Organisations

This research includes purposefully selected multiple case studies, as the selected cases are compelling and unique which would increase the robustness of the overall study (Yin, 2014). The ambition of the Researcher in this study is to focus on the Network Utility Organisations (which are limited to three - electricity, gas and water) in Ireland via longitudinal and processual case study method to develop explanations to gain insights on strategic alignment process including IS artefacts produced and the engagement with Executive Managers during the strategic alignment process. This research is conducted with the following three organisations.

- Electricity Supply Board Networks (ESBN): ESB was established in 1927 as a statutory corporation in the Republic of Ireland under the Electricity (Supply) Act 1927. ESB Networks is a subsidiary of Electricity Supply Board (ESB), which is a state-owned electricity company in Ireland. ESB Networks is responsible for the transmission and distribution of electricity throughout the country. The company operates the electricity transmission system, which includes the high-voltage transmission grid and the distribution network that delivers electricity to homes and businesses.

- Gas Networks Ireland (GNI): Since its inception as the State Gas Development Agency in 1976, Gas Networks Ireland (formerly Bord Gáis Networks) has been committed to putting the needs of the customer first; ensuring gas is transported to the end user in an efficient, economic, safe and reliable manner. Gas Networks Ireland is responsible for the construction, operation and maintenance of and the provision of services with respect to Gas Networks Ireland's transmission and distribution networks.
- Uisce Éireann (UÉ): Incorporated in July, 2013 as a company under the Water Services Act 2013, Irish Water brought water and wastewater services of the 31 local authorities together under one national service provider. Irish Water is responsible for the operation of all public water and wastewater services including: Management of national water and wastewater assets, Maintenance of the water and wastewater system, Investment and planning, Managing capital projects and Customer care and billing.

Multiple case study approach enables the researcher to explore differences within and between cases and also replicate findings across cases, so that the researcher can predict similar results across cases or predict contrasting results based on a theory (Yin, 2014). The major strength of a multiple case design is that it allows cross-case analysis used for richer theory building (Benbasat et al., 1987). This type of design strengthens the results by replicating pattern matching, thus increasing confidence in the robustness of theory (Amaratunga and Baldry, 2001). When selecting organisations, they should be carefully chosen so that they either produce similar results (literal replication) or contrasting results for predictable reasons (theoretical replication) (Naumes and Naumes, 2014).

The number of case studies in a research is suggested not to be less than four or more than ten according to Eisenhardt (1989) and no more than five case studies based on Gable (1994). Having three cases is this research was justifiable due to the natural characteristics of the network utility business being limited to gas, electricity and water in Ireland. Miles and Huberman (1994) suggest that cross-case analysis proceed from more exploratory, open-ended comparisons to more focused, theoretically guided comparisons. Hughes and McDonagh (2021) calls for IS research in areas where its starting point could go beyond reactionary responses to macro-level conditions to

instead encompass investigations into how organisations proactively contribute to alleviating the impact of broader societal issues, in order to address shortcomings in our understanding of strategic alignment.

This study has a unique set of cases, as all three organisations are regularly going through organisation wide business and IS strategy development and implementation aligned with the regulatory calendar for budgetary approval for their technology investments. Additionally, these cases are unique as they represent the network utility industry in a single country, and previously inaccessible to scientific investigation (Yin, 2014) as no other study has yet examined strategic alignment at the network utility organisations in a single country and more specifically in Ireland. Additionally, selecting multiple cases covering the three main natural resources related network utility organisations in a single country for this research has the potential value to understand how the Executive Managers engage with strategy content and strategic alignment process over time in context.

3.6.2 Gaining Access and Selection of Episodes

The Researcher had access to the case study organisations due to his practitioner background, and also to a group of Executive Managers with in-depth knowledge of how the business and IS strategy was developed, executed and revised over the respective time periods. The process of establishing initial contact and discussing the researcher's motivation and request was handled with ease. Based on the initial discussions with the Researcher and the primary contact in each of the respective case study organisations, the challenge observed was to select an appropriate episode that the Researcher should focus on. The factors driving the challenge were the status of their current or planned initiatives, availability of key contacts needed, and the nature of the strategic alignment activities started or ongoing at the time. Given the seniority of the primary contacts in each of the case study organisations that helped the Researcher to engage with the wider organisation, a high level research overview document (included in Appendix 1) was prepared to document and communicate the research overview and ways of working. The table below outlines the timeline of each case study organisation related initial contact, episode selection and field work timeline.

Table 6 - Case Study Organisation Engagement Timeline

Case Study Organisation	Initial Contact	Episode Selection	Selected Episode	Field Work
CSO1 | ESBN	May 2022	July 2022	Powering Ahead Transformation Programme – Started in 2021, and was ongoing at the time of the field work.	October 2022 January 2024
CSO2 | GNI	September 2023	February 2024	IT Application Strategy Project – Started in June 2023 and completed in February 2024.	March 2024 – December 2024
CSO3 | UÉ	May 2024	December 2024	ICT Strategy Project – Started in December 2024 and completed in May 2025.	January 2025 – June 2025

Once the episode selection is agreed with the primary contact in the case study organisation, the Researcher was assigned a key point of contact to further progress the case study research. Maxwell (2009) acknowledges the influence of researcher's skills on case study method. As a PhD student, the Researcher has limited academic fieldwork experience, based on his BSc and MSc studies; however, he has over 25 years of professional experience and is familiar with the selected case study organisations. Yin (2009) suggests researchers must develop the following skills: the ability to ask good questions and interpret the responses, be a good listener, be adaptive and flexible and able to react to various situations, have a firm grasp of issues being studied and be unbiased by preconceived notions. Researchers need the social and political skills to develop and maintain credible relationships with interviewees (Pettigrew, 1990).

3.6.3 Interviewee Selection

Bell and Bryman (2007) define the objective of an interview as the systematic elicitation of information from the interviewee or respondent. As Maxwell (2009) notes, research questions identify the things researcher wants to understand and the associated interview questions generate the data that researcher needs to understand these things. The Researcher will design and execute one-to-one guided open interview type with open-ended questions to allow free response (Bell, Bryman and Harkey, 2022). This research will utilise semi-structured interviews with set of predetermined questions (after peer review and pilot study) that will be used to guide the interviews.

Given the nature of the research question and objectives, interviews are focused on tracing the strategic alignment process, IS artefacts produced along with the nature of the engagement with the Executive Managers. This required semi-structured interviews with purposefully selected senior and Executive Managers from business and IS functions of the participating organisations.

Table 7 - Informants and Interview Summary

Case Study Organisation	Senior Manager	Executive Manager	Total Number of Informants	Total Number of Interviews
ESB	5	4	9	14
GNI	4	3	7	10
UE	5	5	10	15
Total	**14**	**12**	**26**	**39**

In qualitative research, many experts advocate a minimum of 12-15 interviews (Charmaz, 2017) or in multiple tens as is evident from a plethora of qualitative studies (Mason, 2010). There are several reasons suggested for this high number of interviews such as rigor, credibility, accessibility and availability of informants, depth of information, and saturation by a specific number of interviews (Hennink et al., 2017).

3.6.4 Data Collection

The outcome of the data collection phase of a case study is a well organised and categorised set of case data (Darke et al., 1998). According to Yin (2009), there are six sources of evidence (documentation, interviews, archival records, direct observations, participant observation, and physical artefacts) for case studies. Each source is associated with an array of data or evidence. In this study, sources of evidence is based on interviews and collected documentation. In order to face the contextual complexity of the cases, a rich set of data was gathered by holding interviews and continuously seeking for relevant documentation from the interviewees (Yin, 2014).

This research aims to explore how Executive Managers engage with creating and sustaining strategic alignment between business and IS strategies by firstly identifying the phases and stages of strategic alignment work as it unfolds over time and secondly

by identifying alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline) that are executed in each phase/stage, and thirdly by analysing the approach and nature of the engagement with Executive Managers governing the identified strategic alignment activities during the respective phases/stages. Therefore, the data that needs to be collected is guided by the main research question of "How do Executive Managers engage with creating and sustaining strategic alignment between Business Strategy and Information Systems Strategy over time?". The table below outlines the underlying sub-questions for this research and data collection requirements to ensure that at the end of the data collection activities, there is sufficient level of case data collected to satisfy the needs of this research.

Table 8 - Data Requirements for the Research Question

Research Sub-Question	**Data Needed**	**How it is Collected**	**Data Type collected**
What are the phases/stages of IS strategic alignment work as they unfold over time?	Sequence of events that form the phases and stages of strategic alignment work as it unfolds over time	Semi-structured interviews and review of documentation provided by the interviewees	Both primary and secondary data
What specific alignment work sits within each phase/stage?	Alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline)	Detailed review and study of collected documentation, and exchange of information with interviewees to clarify any queries.	Predominantly secondary data
How are executive managers engaged in each phase and what is the nature of that engagement?	Scope, depth and frequency of engagement, including the "input" and "output" of the engagement from Executive Managers' perspective	Semi-structured interviews	Predominantly Primary Data

The primary research instruments for this study are in-depth interviews (primary data) and artefacts (reports, meeting minutes, reports, plans etc.) that are provided by interviewees (secondary data).

Researcher's focus is centred in the understanding of the engagement of Executive Managers with the business strategy and IS strategy form(ul)ation and strategic alignment process including relevant incidents and considerations on strategic alignment. The corpus of collected information will form the core elements of the strategy process (Chakravarthy and White, 2002). Primary data is new information that is collected directly by the researcher, and primary data for this research will be based on the semi-structured in-depth interviews that will be conducted on a non-random purposeful selection of the Executive Managers from the selected case study organisations. Secondary data is research information that already exists in the form of publications or other electronic media which is collected by the researcher, and secondary data set for this research included multi-source informational documentation (Saunders et al., 2023).

A major strength of case study inquiry is the use of multiple primary and secondary data sources. This provides a rich pool of data which can be combined to corroborate findings rather than relying on a single source. Such triangulation of data facilitates the development of "converging lines of enquiry" (Yin, 2014, p. 115) and mediation of conflicting accounts (Pan and Tan, 2011), which in turn supports a more convincing narrative, and ultimately increases the reliability and validity of research findings (Dubé and Paré, 2003; Kaplan and Maxwell, 2005).

3.6.4.1 Primary Data

The primary source of data in a qualitative interpretive case study is the interview (Pan and Tan, 2011; Yin, 2014) which is also well established in the field of IS research (Schultze and Avital, 2011). Yin (2009, p. 106) describes interviews as "guided conversations rather than structured queries" where the stream of questions is fluid rather than rigid. Researcher has adopted a semi-structured or open-ended interviewing approach to capture information and insights into what was on the interviewees' mind by way of gaining their perspective (Patton, 2022). Semi-structured interview approach provides a suitable level of flexibility in producing in-depth qualitative data (Bell et al., 2022) by allowing researcher to listen and engage with the interviewee so that the

outcome of the interview helps in identification and exploration of issues, events and sequences (Simons, 2014).

Empirical work for processual inquiry and contextualised explanations requires the collection of raw incident data (Sminia, 2015). Pettigrew (1990) considers process research as storytelling for the phenomena under investigation and across multiple levels of analysis. Langley (1999) also concurs with this view and suggests that process research is concerned with understanding how things evolve over time and why and how they evolve in a particular way and in what context (Welch et al., 2011; Sminia, 2015; Welch et al.,2022), therefore process data consists largely of stories about what happened and who did what, when including events and choices made over time.

Researcher conducted three types of interviews with the informants as outlined in the table below. Researcher conducted type-A interview first with the assigned point of contact who had full visibility of the selected episode in the respective case study organisation. Type-A interview was critical to establish a clear and holistic understanding of the episode and gather most of the formal documentation related to the episodes.

Table 9 - Interview Types

Data Sets Collected	Type A - Interview with Key Point of Contact (Senior Manager)	Type B - Interview with Senior Managers	Type C - Interview with Executive Managers
Sequence of events that forms the phases and stages of strategic alignment work as it unfolds over time	Interviews focused on scope of the episode, sequence of events and phases, content and context for the episode.	Senior Managers were asked about their insights on the phases of the episode and key activities in each phase from their perspective. Open-ended questions allowed informants to share multiple aspects of the process and outcome during the episode.	There was no intention to capture any detailed process or documentation related information from the Executive Managers in the interviews. Researcher provided a short overview of his previous sessions with the senior managers, and drove the interview to focus on the insights and perspectives of the Executive Managers.
Alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline)	Detailed review and study of collected documentation that was produced during the episode, and exchange of information with interviewee to clarify any queries.		
Scope, depth and frequency of engagement, including the "input" and "output" of the engagement from Executive Managers' perspective	Interviews focused on governance structure and key milestones of the relevant episodes to establish an understanding of the flow of review, feedback and sign-off events.	Senior Managers were asked to outline the engagement with Executive Managers, specifically on frequency, depth and scope. Focused on "input" and "output" of their engagement with the Executive Managers.	Executive Managers were interviewed to provide their view of the process, their engagement and contribution. Specific points on their "input" to the process, and the "output" they achieved were probed.

In collecting the research data for case study, there is a trade-off between the breadth versus the depth of data obtained (Yin, 2014) and the time and availability of informants. Due to the agreed ways of working with the case study organisations, each interview was set to 60 minutes maximum.

With the completion of type-A interviews, the Researcher was able to engage with the other informants for type-B and type-C interviews. For undertaking semi-structured interviews, Yin (2017) states that small sample sizes could be adequate with purposeful sampling. Interviewees for type-B and type-C interviews were advised by the key point of contact in each case study organisation based on their knowledge, involvement and contribution to the selected episodes. Interviewing Senior Managers via type-B interview provided Researcher an opportunity to confirm or disconfirm what he would hear from the Executive Managers.

Due to the hybrid working routines emerged during and after the COVID-19 pandemic, the Researcher was advised to conduct the interviews remotely via web

conferencing. This was because when senior and Executive Managers are at their offices, they were prioritising their days in the office to engage with their own staff. All interviews were scheduled in advance via email, and permission to record the interview session sought at the beginning of each meeting. Permission was granted to record all interviews.

Although the interviews are recorded on Webex or MS Teams web conferencing application, the Researcher took handwritten notes to during the interview, this helped the Researcher to capture key points and ask follow-up questions on the fly. The Researcher was careful not to affect the informants' interpretations of questions, nor lead them in a response. At the end of each interview, the Researcher consolidated his notes by writing a research memo for the interview and list the key points captured that was gathered about the strategic alignment process, stage/phases and relevant deliverables came out of it, and any executive engagement related points mentioned. However, typically of inductive research, some data collection continued over the course of the research study until "saturation" had been reached as outlined in Section 3.6.6.5 of this thesis.

The next step was to listen to the interview recording and read/review and amend the auto-created interview transcript in parallel. Due to web conferencing application maturity, speech to text feature was not functioning properly in some instances, therefore the Researcher also corrected the auto generated recording transcript where needed. During this step, the Researcher has merged his research memo notes and highlighted the key points made by the interviewee and took notes of any open items that require further clarification. This meant that the transcript, key points and notes were available to interpret meaning for each meeting along with the aim to ensure completeness and accuracy throughout the data collection process.

3.6.4.2 Secondary Data

The main source of secondary data collected was the informants of this research, specifically the key point of contact for each of the case study organisations. Document analysis is conducted in parallel to the type-A interviews to assist with gaining an in-depth understanding of the episodes for each of the case studies.

Significant amount of strategy process research uses retrospective reports (Eisenhardt and Bourgeois, 1988) similar to this research. The reliance on retrospective reports in this research was driven by the research sub-questions in relation to alignment related specific activities including the definition of key artefacts' (i.e. outputs/documents) content outline. Bowen (2009) advises that documents include more than transcriptions of interviews and other forms of talk, and their lack of reactivity is a major advantage over interviews. As the quality of data obtained from documents was already assessed when the source documents were published (Hesse-Biber and Leavy, 2010). The process of document review and analysis continued post-collection of primary data to corroborate and augment evidence, and to support the development of the case narrative and analysis. Document analysis enabled the triangulation of information supported by primary data that helped to develop a more holistic view of the strategic alignment process, alignment specific activities and IS artefacts produced and the engagement with Executive Managers.

3.6.5 Writing up the Cases

The reporting phase, which is the result of the research design and execution, is regarded as one of the most laborious stages of the research process because it requires a story to be written (Remenyi and Bannister, 2022). Writing is required at every step of the research process, as Yin (2009) recommends continuously drafting portions of the case report during analysis rather than waiting until the end of the process.

Writing is a form of analysis because analysis happens in the process of writing (Sparkes and Smith, 2014). Researcher utilised the benefits of this approach to progressively discover ideas, areas of importance and how they formed an overall picture. Writing is an iterative and inductive process of hearing stories speak to the research aims, representing those stories and theoretical thoughts in writing, revising the narrative and theory as arguments are developed and revising the writing as those stories and theory require (Frank, 2000).

The table below provides a summary of key dimensions of this research's design that was guided by the main research question of "How do executive managers engage with creating and sustaining strategic alignment between Business Strategy and

Information Systems Strategy over time?". The case narrative structure outlined in the table below is adapted in Chapter 4.

Table 10 - Case Narrative Structure

Research Sub-Question	Data Collected	Type of Data and Collection Method	Nature of Data Collected	Sense-Making Strategy Used (Langley, 1999; Pozzebon and Pinsonneault, 2001)		Case Narrative Structure used in Chapter 4
				Within-Case Analysis	Cross-Case Analysis	
What are the phases/stages of IS strategic alignment work as they unfold over time?	Sequence of events that forms the phases and stages of strategic alignment work as it unfolds over time	Both primary and secondary data collected via semi-structured interviews and review of documentation provided by the interviewees. (Type-A and Type-B Interviews)	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Narrative Strategy	Data analysis was conducted with Grounded Theory Strategy based on the completed case narrative for each of three case study organisations.	**Company Overview** - A brief description of company history and scope of services provided **Business Strategy Overview** - A high level summary of business strategy and objectives are outlined as a backdrop of the selected episode. **IS Strategy Development and Strategic Alignment Episode Overview** - Overview of the selected episode for IS Strategy Development and Strategic Alignment **Selected Episode** - A detailed case study narrative covering the observed phases and stages, and associated activities and IS arte-facts developed in each phase. This section serves as the book of evidence for the first and second research sub-questions. **Executive Engagement within the Selected Episode** - A detailed case study narrative focusing on the nature of the executive engagement observed within the selected case study episode. This section serves as the book of evidence for the third research sub-question.
What specific alignment work sits within each phase/stage?	Alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline)	Predominantly secondary data collected via detailed review and study of collected documentation, and exchange of information with interviewees to clarify any queries. (Type-A and Type-B Interviews)	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews **Documentation Data** - documents and their content in the form of input or outcome of the strategic alignment process	Narrative Strategy including descriptive and content analysis of documentation collected		
How are executive managers engaged in each phase and what is the nature of that engagement?	Scope, depth and frequency of engagement, including the "input" and "output" of the engagement from Executive Managers' perspective	Predominantly Primary Data collected via semi-structured interviews. (Type-B and Type-C Interviews)	**Engagement Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Grounded Theory Strategy	Grounded Theory Strategy - Consolidated individual within-case analysis across the three cases.	

For the exposition of a case study, Benbasat et al. (1987) recommends that a clear chain of evidence must be established while the contextual and data richness of the study is being presented. Yin (2009) suggests that an exemplary case study must have following five characteristics; be significant, be complete, consider alternative perspectives, display sufficient evidence and be composed in an engaging manner.

3.6.6 Data Analysis

Siggelkow (2007) suggests that if only limited theoretical knowledge exists (similar to this research study) concerning a particular phenomenon, an inductive research strategy allowing the theory to emerge from the data would be a valuable starting point. It is well established in IS domain that inductive approach is best suited to the investigation of the social phenomena (Hirschheim and Klein, 1989; Ketokivi and Mantere, 2010).

Mintzberg (1978, p. 935) suggests that if discovery is the goal of the research, then it should be "as purely inductive as possible". He also suggests that the first part of inductive research is the "detective work" following one lead to another to uncover

patterns and consistencies that can be surfaced with “peripheral vision” and “poking around in relevant places” (p. 585). According to Mintzberg (1979), the second part of induction research is the “creative leap” and requires a "good dose of creativity" to support generalising beyond the data. Klag and Langley (2013) advise that a “conceptual leap” is a mysterious phenomenon in qualitative research where conceptual insight is expected to emerge from data, and Weick (1989) describes as “disciplined imagination” (p. 516). It bridges the gap between empirical data and the world of ideas, seeing new ways of making sense of some aspect of the social world and articulating them through writing or visualisation.

Data analysis is considered the most difficult and least documented part of the research process (Eisenhardt, 1989) and represents a central step in qualitative research impacting on the outcome of any research conducted (Flick, 2018). Carroll and Swatman (2000) note that the main difficulty when employing qualitative research is demonstrating the linkage between the data collected and conclusions drawn. Data analysis has been described as the interplay between raw data, the procedures used to interpret and organise the data, and the emerging findings (Maxwell, 1996; Patton, 2002). Miles, Huberman and Saldaña, (2020) consider data analysis as three concurrent flows of activity across data condensation, data display, and conclusion drawing/verification. Moving from data to theory is a creative process which uses a combination of induction and deduction to develop plausible explanations for temporal dynamics (Kaplan and Maxwell, 2005; Langley and Tsoukas, 2010). Miles, Huberman and Saldaña, (2019) suggest that conclusion drawing is only half of the picture, as meanings emerging from the data require to be tested for their plausibility, sturdiness and confirmability. This creative process is called abduction.

Langley (1999) suggests that the central challenge lies in moving from a shapeless data spaghetti toward some form of theoretical understanding that does not betray the richness, dynamism, and complexity of the data but that is understandable and potentially useful to others. Although collecting and analysing data are modelled as separate stages, in practice they may be closely interrelated and may be viewed as overlapping (Eisenhardt, 1989).

Case study research is considered as a “bounded system'' (Stake, 2008) where all facts and measurements are interconnected with each other. Within-case analysis

consists of internally scrutinising each case as a stand-alone entity and in the cross-case analysis - an explanation building approach is adopted complementary to the pattern matching approach for the further formation of explanations. The unit of analysis for this research is the strategic alignment process and the engagement with Executive Managers within the process. The table below outlines the qualitative data analysis approach taken in this research by outlining the collected data, its nature and data analysis approach taken to answer the research question.

Table 11 - Qualitative Data Analysis Approach

Data Sets Collected	**Nature of Data**	**Source**	**Sense-Making Strategy Used (Langley, 1999; Pozzebon and Pinsonneault, 2001)**	
			Within-Case Analysis	**Cross-Case Analysis**
Sequence of events that forms the phases and stages of strategic alignment work as it unfolds over time	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Type-A and Type-B Interviews	Narrative Strategy - Utilised in the development of the case study narrative as outlined in Section 4 of this thesis.	Data analysis was conducted with Thematic Analysis based on the completed case narrative for each of three case study organisations - Utilised in the theory development as part of cross-case analysis as outlined in Section 5 of this thesis.
Alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline)	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews **Documentation Data** - documents and their content in the form of input or outcome of the strategic alignment process	Type-A and Type-B interviews	Narrative Strategy including descriptive and content analysis of documentation collected - Utilised in the development of the case study narrative as outlined in Section 4 of this thesis.	
Scope, depth and frequency of engagement, including the "input" and "output" of the engagement from Executive Managers' perspective	**Engagement Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Type-B and Type-C interviews	Grounded Theory Strategy - Utilised in the development of the case study narrative as outlined in Section 4 of this thesis.	Grounded Theory Strategy – Second and Third level codes are utilised in the theory development as part of cross-case analysis as outlined in Section 5 of this thesis.

The individual narratives, as "stories from the field" are included in Chapter 4, follow a structured flow to better comprehension. Each of the case narratives was analysed to develop case-specific insights on the strategic alignment process and the nature of engagement with Executive Managers.

The following sub-sections below outline the data analysis approach employed in detail.

3.6.6.1 Narrative Strategy

The analysis of process data requires a means of conceptualising events and finding patterns among them (Langley, 1999) and process research methods published in recent years which have contributed to mapping out a rather complex terrain (Langley and Abdallah, 2011) as none has offered a unifying template or a set of guidelines on how to do process research (Abdallah, Lusiani and Langley, 2019). Sminia (2015) suggests that collecting incident data based on pre-conceived theoretical insights is relatively easy compared to needing to decide what data to collect beyond that. The Researcher adopted Van de Ven's (2007) definition of qualitative datum as an activity — described as a bracketed string of words that captures essential elements of information, including a description of a discrete incident or occurrence, along with time-related details that support event sequencing. Sminia (2015) iterates the importance of maintaining close relationship between data collection and analysis to ensure internal validity (Pettigrew, 1990) which is key to produce contextualised explanation that requires clear and comprehensive data collection and data analysis procedures combined with multiple sources corroborating with each other.

Narrative strategy as a qualitative data analysis approach involves construction of a detailed story from the raw data (Langley, 1999) and dominates the work of strategy researchers who adopt a contextualist perspective. Narrative strategy aims to achieve understanding of organisational phenomena, not through formal propositions, but by providing the "vicarious experience" of a real setting in all its richness and complexity (Lincoln and Guba, 1985, p. 359). The Researcher was mindful of the advice that the narrative should contain sufficient quotes to enable the reader to reach an independent judgement on the merits of the analysis (Dubé and Paré, 2003). In addition to the relevant quotes from the interviews, the Researcher also included several figures extracted from the secondary data relevant to the content and context throughout the case narratives. This was undertaken to demystify the IS artefacts produced during the phases and stages of the strategic alignment process.

Narrative strategy is generally used to reconstruct participant accounts and identify key events and actor perspectives (Riessman, 2008). Process analysis enables the temporal structuring of these events into phases and transitions (Langley, 1999). Temporal bracketing is a process-oriented analytical technique that involves dividing longitudinal qualitative data into successive, theoretically meaningful periods or "brackets" (Langley, 1999). By segmenting the data into discrete phases, temporal bracketing enables the researcher to examine how actions and events in one period influence those in subsequent periods, thereby revealing patterns of change, causal relationships, and process dynamics over time. In this study, temporal bracketing is used to structure the analysis of strategic alignment process within and across case organisations, facilitating the identification of key transitions (stages and IS artifacts), turning points, and the evolution of executive engagement throughout the alignment journey.

Secondary data collected during the research was also important, not only to triangulate with the primary data to reach tick-descriptions within the process narrative, but also to articulate the content provided in the documentation supporting the strategic alignment process. Researcher also utilised visual mapping approach, where relevant, to provide adequate visual representation of the narrative derived from the data. Visual graphical representations are particularly attractive for the analysis of process data because they allow the simultaneous representation of multiple dimensions, and they can easily be used to show precedence, parallel processes, and the passage of time (Langley, 1999; Miles, Huberman and Saldaña, 2020).

3.6.6.2 In-Case and Cross Case Analysis

Zonabend (1992) states that case study research gives special attention to complexities in observation, reconstruction, and analysis of the cases under study is done in such a way that it incorporates the views of the "actors" in the case under study. Therefore, each individual case study consists of a "whole" study that must be able to stand alone on its own right (Yin, 2014).

Yin (2017) urges for the risk of becoming focused on the minutiae of data generated rather than on the evidence. Researcher mitigated this risk by focusing on

meaningful events in the strategic alignment process and the nature of the Executive Manager engagement rather than on the detail. However, the Researcher was also conscious of the important balance in relation to the level of detail that "process theorisation needs to go beyond surface description to penetrate the logic behind observed temporal progressions - whether simple or complex" (Langley, 1999, p. 694).

Within-case analysis should always precede cross-case analysis (Miles and Huberman, 1994), since unique patterns will emerge before generalised patterns become apparent across cases (Eisenhardt, 1989). The cross-case data analysis began after the completion of individual case level analysis when narratives were developed for each of the cases. Particular attention was paid to the effect of the internal and external context in the case level analysis. The structuring of the case narratives, and the inclusion of data on the wider environmental context, enabled the researcher to see the individual organisational stories through a contextualist lens (Klein and Myers, 1999).

The purpose of cross-case analysis is to compel researchers to go beyond initial surface impressions from the data though the use of structured lenses (Eisenhardt, 1989). This objective is achieved though the identification of dimensions or categories which can then be sought across the cases (Eisenhardt, 1989). Good qualitative data analysis in investigations of the strategy formation process need to employ coding techniques to classify and categorise the data (Barnes, 2001). The analysis of multiple case studies is based on the comparisons between the empirical evidence and the theoretical propositions developed at the initial stages of the study and involves detailed case study write-ups for each case.

3.6.6.3 Thematic Analysis

Braun and Clarke (2019) suggest that thematic analysis is a flexible and systematic method for analysing qualitative data by identifying, organising, and interpreting patterns of meaning (known as themes) within a dataset. It involves a six-phase process including; familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. This approach allows researchers to explore rich, detailed insights while remaining adaptable to different theoretical frameworks. Braun and Clarke (2019) emphasise the importance

of transparency, reflexivity, and researcher subjectivity, positioning thematic analysis as a rigorous yet accessible tool for qualitative inquiry across disciplines.

While both thematic analysis and grounded theory involve coding and categorising qualitative data, they differ significantly in purpose, process, and theoretical orientation. Thematic analysis is a flexible method used to identify, analyse, and report patterns (themes) within data. It does not require adherence to a specific theoretical framework and can be applied across various epistemological positions. Its primary goal is to provide a rich, detailed, and nuanced account of data. In contrast, grounded theory strategy for data analysis, as described by Langley (1999), is more systematic and theory-generative. It aims to develop new theories grounded in the data itself through iterative coding, constant comparison, and theoretical sampling. Grounded theory typically involves deeper engagement with data and a more structured progression from open coding to axial and selective coding, ultimately leading to the emergence of a core category or theoretical model. Thus, while thematic analysis is often used for descriptive and interpretive purposes, grounded theory strategy is explicitly designed for building explanatory theory.

This research draws on the stakeholder engagement framework proposed by Jenkin et al. (2019), which identifies three key dimensions; the depth of engagement (i.e. the amount and richness of information shared), the scope of engagement (i.e. the number and diversity of stakeholder groups involved, the directionality of information flow, and their proximity to sense-making and sense-giving), and the timing of engagement (i.e. when stakeholders are involved). Researcher will utilise thematic analysis in the definition of the forms and attributes for the engagement with Executive Managers based on the case study narratives provided in Section 4 of this thesis. The outcome of this thematic analysis is outlined in Section 5.2.5.1 and 5.2.5.2, with further details provided in Appendix 8 and Appendix 10 of this thesis.

3.6.6.4 Grounded Theory Strategy

While this research employs grounded theory techniques - such as open, axial, and selective coding - to support inductive analysis and theory development, it does not adopt the full Grounded Theory Methodology (GTM) as originally formulated by Glaser

and Strauss (1967). Instead, grounded theory is used as a flexible data analysis strategy within a broader qualitative, interpretivist/constructivist framework. This approach enables systematic coding and category development while maintaining methodological coherence with the study's philosophical stance and case study design (Langley, 1999; Charmaz, 2017; Saldaña, 2014).

Langley (1999) defines "grounded theory strategy" in qualitative data analysis as a sense-making strategy with reference to the specific data analysis method described in Glaser and Strauss's (1967). Thornberg and Charmaz (2014) describe coding as the pivotal link between data collection and explaining the meaning of that data. Even though these techniques are mentioned for grounded theory method, it is important to note that researchers use these coding methods also in non-grounded theory studies (Saldaña, 2014).

A "grounded theory strategy" approach to data analysis was adapted for this research in the within-case analysis (for nature of engagement with Executive Managers) and cross-case analysis (including case narratives across the three case study organisations) to detect similarities and compare differences (Langley, 1999; Loonam, 2014; Abdallah, Lusiani and Langley, 2019). This research takes the approach as suggested by (Langley, 1999) as a method to organise the data and map concepts graphically to find an order that will establish the meaning from qualitative data (Mezmir, 2020).

Coding is an interpretive activity, and a code (as in "first-order codes", a term attributed to Van Maanen (1979) is a descriptive construct designed by the researcher to capture the primary content or essence of the data (Saldaña, 2014) allowing the researcher to make further choices for data selection (reduction) and condensation (Miles, Huberman and Saldaña, 2019). Coding consists of segmenting the data into units and rearranging them into categories that facilitate insight, comparison, and the development of theory (Pare and Elam, 1997; Hammersley and Atkinson, 2019).

Strauss and Corbin (1998) explain coding as the process of concept labelling and categorising (open coding). Following this, concepts with the same phenomena can be grouped into a category (axial coding), allowing researcher to seize the meaning of the data. Open coding (Corbin and Strauss, 1990) is a technique that uses a form of content

analysis where the data are read and categorised into concepts that are suggested by the data rather than imposed from outside. Open coding relies on an analytic technique of identifying possible categories and their properties and dimensions. Once all the data was examined, the concepts were organised by recurring theme. These themes become prime candidates for a set of stable and common categories which linked a number of associated concepts. This is known as axial coding (Corbin and Strauss, 1990) and it relies on a synthetic technique of making connections between subcategories to construct a more comprehensive scheme allowing the analysis to become "grounded" in the sense that it is derived from data, systematically gathered and analysed through the research process. Grounded theory based sense-making strategy leads the qualitative data analysis to be "grounded" as systematic comparison of small units of data (incidents) and the gradual construction of a system of "categories" that describe the phenomena being observed (Langley, 1999). This research will utilise this technique not to develop a grounded theory per se, but to ensure that the emerging theoretical framework was empirically grounded and conceptually robust.

3.6.6.4.1 Coding Process

A systematic coding process was employed to ensure transparency, consistency, and rigour in the analysis of qualitative data. The coding process commenced after the type-B and type-C interview scripts are reviewed, documented and aggregated at the individual case level to facilitate the commencement of analysis. The development of the codebook began with an initial round of open coding, in which interview transcripts and relevant documents were read closely and segments of text were assigned descriptive codes that captured their primary meaning (Charmaz, 2017; Saldaña, 2014). The initial codes were based on concepts which emerged from the research question and the literature review. The codes were chosen on the basis that they would enable data related to the research question, the organisational context or stakeholder groups to be aggregated and managed. The choice of codes by the Researcher underlined the subjective nature of the process (Walsham, 2006). This process aimed to deepen the data analysis which began through a standard process of data reduction and segmentation that allowed the data to be re-arranged and analysed in a structured manner (Eisenhardt 1989; Gioia et al., 2013; Miles, Huberman and Saldaña, 2019).

As coding progressed, similar codes were grouped and refined through axial coding, allowing for the identification of broader categories and relationships among codes (Corbin and Strauss, 1990). The codebook was iteratively updated to reflect emerging insights, with clear definitions and inclusion/exclusion criteria for each code to enhance consistency. To ensure credibility, reliability, trustworthiness and reflexivity, the coding process involved regular memo-writing to document analytic decisions and reflections. This approach to coding is consistent with the study's interpretivist/constructivist stance, recognising that codes and categories are not fixed, but are co-constructed through iterative engagement with the data and ongoing reflection on meaning and context.

Coding was done in Microsoft Excel spreadsheet by going through interview transcripts and documents and seeking out blocks of text that could be associated with that particular code or a new code. Including the full codebook in Appendix 11, along with the resulting coding tables in Appendix 12, enhances the transparency and reliability of this research. It provides a clear audit trail from raw data to conceptual categories, allowing readers and examiners to verify the analytical process and assess the robustness of the findings. This practice aligns with good standards in qualitative research by supporting reproducibility, enabling future studies to build on the coding framework, and reinforcing the credibility of the interpretations presented in the main chapters.

Throughout the data analysis process, reflexivity was actively maintained to enhance the credibility and trustworthiness of the findings. The Researcher kept a reflexive journal to document analytic decisions, emerging insights, and potential biases during coding and interpretation. The Researched used grounded theory strategy to let concepts emerge inductively from the data rather than from preconceived prior knowledge. The data triangulation exercise across interviews and collected artefacts ensured that the interpretations were evidence-based rather than assumption-driven. This ongoing self-reflection helped to identify and mitigate the influence of preconceptions stemming from the Researcher's professional background and prior knowledge of the industry. Additionally, transparency was ensured by providing detailed descriptions of coding procedures and including direct quotations from participants, allowing readers to assess the interpretations independently.

3.6.6.4.2 Tension in Coding Process and Mitigation Approach

The transition from axial coding to selective coding in grounded theory presents a conceptual tension between depth and abstraction. Axial coding, as developed by Strauss and Corbin (1998), enables researchers to elaborate categories by exploring their conditions, contexts, actions/interactions, and consequences. This results in a richly detailed understanding of the phenomenon under study. The coding process introduced a degree of abstraction through iterative cycles of open, axial and selective coding of the collected data which enabled new aspects (until saturation is reached in coding process) of the nature of executive engagement within the strategic alignment process to be revealed in analysis.

In grounded theory strategy for data analysis (Langley, 1999), the transition from axial coding to selective coding marks a shift from category development to theoretical integration (Strauss and Corbin, 1998). Axial coding produces richly elaborated categories which capture the complexity of the collected data. Selective coding, in contrast, condenses these into higher-order, integrative categories that are woven into a coherent theoretical framework centred around a core category. While this shift is essential for producing a parsimonious and theoretically robust model, it also introduces a methodological tension. As Charmaz (2017) observes, the process of theoretical integration can risk "smoothing over" the variability, contradictions, and nuanced detail present in earlier coding phases. Birks and Mills (2015) similarly caution against "over-compression" during selective coding, whereby the drive for conceptual elegance may inadvertently obscure the richness of the data and the diversity of participant perspectives.

The Researcher felt that this shift was reductive, as it required leaving behind some of the nuanced complexity developed during axial coding. Charmaz (2006) acknowledges this tension, emphasising that selective coding is not about discarding detail but about strategically elevating the analysis to construct a coherent and meaningful theory grounded in the participants' lived experiences. Similarly, Birks and Mills (2015) describe selective coding as a process of theoretical integration, where the richness of the earlier coding phases informs the final conceptual framework, even if not

all elements are explicitly retained. The challenge that the Researcher faced was in maintaining theoretical sensitivity and ensuring that the depth of axial coding continues to shape the emerging theory while achieving clarity and parsimony in the final narrative.

This tension reflects a fundamental challenge in grounded theory strategy for data analysis: balancing parsimony and complexity. Corbin and Strauss (1990) emphasises that the resulting theory must be conceptually dense, integrating categories without sacrificing the empirical grounding provided by axial coding. Over-simplification at the selective coding stage risks producing a model that is theoretically neat but empirically thin, thereby weakening its explanatory power and the reader's confidence in its validity.

To address the tension between preserving analytical richness and achieving theoretical integration, the Researcher adopted a layered presentation strategy in the conceptual theoretical framework. This approach allowed the selective coding outputs to be presented as the central theoretical narrative, while the detailed insights from the axial coding are retained and showcased in supporting layers. By doing so, the Researcher maintained transparency and depth, demonstrating how the theory is grounded in the complexity of the data without overwhelming the main narrative that is included in Section 5.3 of this thesis. This layered structure not only enhances the credibility of the analysis but also aligns with the principles of theoretical sensitivity and methodological rigor advocated in the grounded theory literature (Strauss and Corbin, 1998; Charmaz, 2006; Birks and Mills, 2015).

3.6.6.5 Theoretical Saturation

This section aims to outline the approach taken to determine theoretical saturation in this study and explains the criteria used by the Researcher to judge when further data collection and analysis was no longer yielding new conceptual insights.

In establishing theoretical saturation, the Researcher followed a multi-layered approach consistent with the research design. Charmaz (2006) describes theoretical saturation as "when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of these core theoretical categories" (p. 113). Saturation is not defined by the absence of new data, but by the point at which additional interviews or collected documents no longer yield new conceptual categories, mechanisms, or

dimensions relevant to strategic alignment and executive engagement. At the within-case level, early interviews and artefact analysis generated a broad set of first-order concepts, which subsequently stabilised as later interviews produced only additional instances of the same categories. At the cross-case level, phases, stages, IS artefacts, inputs and outputs of Executive Managers recurred consistently across the case study organisations, indicating conceptual replication rather than expansion.

During grounded theory strategy coding, open coding produced an initial variety of concepts, but axial and selective coding revealed stable relationships among them, with no new categories emerging despite continued data collection. Finally, triangulation of collected multiple types of data (i.e. process, document and engagement data sets) and multiple analytical angles to examine how strategic alignment is created and sustained further accelerated saturation by showing strong convergence across data sources – increasing the credibility, depth, and robustness of the concepts developed. Collectively, these indicators provided confidence to the Researcher that the conceptual scope was sufficiently developed and that additional data would enhance richness but no longer alter the underlying theoretical structure.

3.6.7 Key Considerations of the Research

This section aims to outline key considerations that forms an integral part of rigorous research effort which is to achieve validity and reliability. The case study method allows obtaining new holistic and in-depth understandings, explanations and interpretations about previously unknown practitioners' rich experiences, which may stem from creative discovery as much as research design (Riege, 2003).

Richards (2009) notes that qualitative research gets much of its claim to validity from the researcher’s ability to illustrate how they conducted their research and how they reached the conclusions. Positivist terms used in quantitative research such as “internal validity”, “external validity”, “generalisability” and “objectivity” are replaced with terms such as “credibility”, “transferability”, “dependability” and “confirmability” in qualitative research (Lincoln and Guba, 1985; Miles and Huberman, 1994; Riege, 2003), Yin (2009) also considers trustworthiness which is similar to “credibility/transfer”.

Lincoln and Guba (2013) call such constructs “establishing the truth value” and they include credibility, transferability, replication and neutrality.

While the qualitative, multi-case study approach provides rich, context-sensitive insights, it does not seek statistical generalisability. Instead, the aim is to enable analytical or theoretical generalisation, allowing readers to assess the applicability of findings to other contexts based on the detailed descriptions provided. The unique characteristics of the Irish network utility sector may limit direct transfer to other industries or countries, but the thick description and transparency in reporting support informed comparison and potential adaptation.

The sections below outline the key considerations and provide the Researcher’s approach.

3.6.7.1 Confirmability

Confirmability criteria are intended to ensure that there is a clear link or relationship between the data and the findings, that the researcher is free of unacknowledged biases and that the research is conducted in a neutral fashion (Miles and Huberman, 1994). The following approach was taken to comply with the criteria.

- The primary and secondary data collected, on which the narratives and analysis were based, was retained for subsequent audit or analysis.
- The different levels of data reduction, condensation and aggregation are illustrated in the thesis using extracts from the actual data reduction process. This allows the reader to reach an independent judgement on the process and the conclusions reached.
- The Researcher included quotes and extracts of IS artefacts from the collected primary and secondary data to enable reader to reach an independent judgement on the merits of the analysis.
- The method and process used in the investigation has been described in Chapter 3 and Chapter 5 to enable the reader to reach a judgement on the consistency between research problem, the method chosen, and the way in which the research was conducted.

- The Researcher has explicitly acknowledged the potential for researcher bias in the inquiry and has addressed the issue.

3.6.7.2 Dependability

Dependability criteria are intended to address the replicability and consistency of the investigation (Miles and Huberman, 1994). Dependability can be ensured through rigorous data collection and analysis techniques and procedures that are well documented, ensuring that another researcher can follow the same procedural steps. The following approach were taken to comply with the criteria.

- The philosophical basis of the investigation has been stated explicitly in Chapter 3 of this thesis, and the methodological choices have been situated within the boundaries of the research paradigm chosen and the academic tradition in the IS domain.
- A case study protocol, as provided in Appendix 1, for the research was established at the outset and the corresponding modus operandi was specified in the initial correspondence with each case study organisation and with each interviewee.
- Data collection and analysis techniques and procedures are clearly documented in Chapter 3 and can be traced across case study narratives in Chapter 4 and theoretical development discourse in Chapter 5. Additionally, the following details are provided in the Appendices chapter:
    - Appendix 8 – Narrative on Attributes of Executive Engagement and Thematic Analysis
    - Appendix 10 – Thematic Analysis of Forms and Frequency of Executive Engagement
    - Appendix 11 – Code Book
    - Appendix 12 – Complete Coding Process Mapping Table
- Informants in the case studies included senior and Executive Managers to ensure that the perspectives of participants that are required by the research question were captured in the inquiry.
- There were no unexpected inconsistencies encountered in the research.

3.6.7.3 Credibility

Credibility criteria refer to the truth or trustworthiness of the research findings (Miles and Huberman, 1994). The Researcher took a number of steps to ensure that the findings from the investigation would meet the criteria conditions.

- Longitudinal, context rich, case narratives were developed for each of the case study organisations including business context.
- The case narratives were sent to the senior manager who acted as the key point of contact for review and feedback. The feedback and confirmation received from the three case study organisations are included in Appendix 14 of this thesis.
- The academic literature on strategic alignment was revisited at the end of the analysis to identify any aspects which confirmed or disconfirmed the research findings.
- The research was an explanatory with theory development endeavour in strategic alignment in network utility organisations in Ireland which is an area where no previous research had taken place.

3.6.7.4 Transferability

Transferability criteria refer to the potential for the findings to be applicable to other theoretical settings, cases, or populations (Miles and Huberman 1994). The inductive researcher can extrapolate case study findings to similar settings without claiming generalisability for the results. The following approach were taken to comply with the criteria.

- The case settings and business contexts are fully described in each of the cases to permit of comparisons with other settings. The case study organisations were network organisations in a regulated network utility market in Ireland which could be compared with other similar utility network organisations in other countries.
- The case study narratives contain thick descriptions of the phenomenon investigated to enable theoretical and situational transferability to be assessed by readers.

- The congruency of the research findings with existing literature has been set out in Chapter 5.
- Proposals for extending the research to other settings have been explored in Chapter 7 which would enhance the transferability of the research findings more generally.

3.6.7.5 Ethics

The overriding philosophy behind the ethical considerations of research is “do no harm”. Research that involves people, either as individuals or groups, needs to consider the possibility of psychological or reputational harm to those taking part (Merriam, 1988). Consideration also extends to the organisations as an entity, as reputational damage can sometimes occur by disclosing information that might otherwise be considered sensitive. Tight (2017) summarises these concerns into four critical codes which are applied in this research:

- Any person involved gives their consent, having been informed what they are consenting to.
- No person involved will suffer harm or disadvantage as a result of their involvement.
- Persons included will have the right to discontinue or withdraw at any time.
- Persons involved have the right to confidentiality and will not be identified unless they want to be.

Strict ethical guidelines were adhered to throughout the study. Each interview commenced with an introduction to the nature and purpose of the research and a guarantee that their input would remain confidential. Permission was asked for recording the session to which none had an objection. All interview participants digitally signed a consent before the recording of the interview sessions started – this is a standard feature of digital web conference tools used in the research. No personally identifiable data is included in the thesis document.

The nature of a topic considering aspects of business organisations, such as business and IS strategy including strategic alignment, would generally be considered sensitive by an organisation (Saunders et al., 2023). However, the focus of this research

was not on the business or IS strategy itself. Therefore, this study contains no evaluative judgment on any business organisation or its performance. This focus ensures that no harm or disadvantage can incur. Any commercially sensitive data collected during the research is redacted from the final thesis document.

To protect the right to confidentiality, the starting point of this research was anonymity by using pseudonyms for all the participants. No pseudonyms are used for the case study organisations, due to the multiple-case study approach on key network utility businesses in a regulated environment (i.e. gas, electricity and water) in Ireland. Therefore, anonymity is only guaranteed for the participants, and the implication of this was carefully discussed and agreed with each of the case study organisations via the key point of contact. Moreover, complete confidentiality was offered within the research setting, meaning that all participants were free to say things they could later edit, correct or retract completely. All data regarding this research was stored electronically using a secure system that was encrypted and password protected. Handwritten notes were securely stored at the Researcher's home.

3.7 Implications of Research Design and Strategy on the Preliminary Conceptual Framework

The preliminary conceptual framework developed for this research in Section 2.5 of this thesis, provides an initial lens for understanding how Executive Managers engage with the creation and sustenance of strategic alignment between business strategy and IS strategy over time. This framework identifies key analytical categories including the phases and stages of alignment work, the specific activities within each phase and the nature of Executive Manager engagement therein.

The research design adopted in this study has had a significant impact on the development and refinement of this conceptual framework. The choice of a relativist ontology and interpretivist/constructivist epistemology aligns with the framework's emphasis on context, sense-making, and the co-construction of reality. By privileging participants' perspectives and recognising the situated nature of strategic alignment

process, the research design ensures that the framework remains sensitive to the lived experiences and interpretations of Executive Managers.

Methodologically, the qualitative, longitudinal, multi-case study approach enables a deep, processual exploration of strategic alignment. The use of semi-structured interviews and the collection of rich, contextually embedded data (related to process, documentation and engagement) allow for the identification of emergent themes and patterns that may not have been anticipated in the initial framework. Furthermore, the application of thematic analysis, grounded theory coding for data analysis, narrative strategy and processual inquiry facilitates the iterative refinement of alignment types and relationships within the framework, ensuring that it is empirically grounded and responsive to the complexity of real-world practice.

As the research progresses, the framework is subject to ongoing evaluation and adaptation in light of empirical findings. Early data analysis has already prompted the reconsideration of certain categories and the addition of new dimensions, reflecting the dynamic interplay between theory and evidence. This iterative process not only enhances the validity and relevance of the conceptual framework but also positions it as a living model that evolves in response to the insights generated through the research design. The research design serves both to operationalise and to critically interrogate the preliminary conceptual framework, ensuring that it remains robust, context-sensitive, and theoretically informed. The framework will continue to be refined and tested in subsequent chapters and finalised in Section 5.3, ultimately providing a foundation for the study's theoretical contribution to the field of strategic alignment in IS domain.

3.8 Conclusion

This chapter outlined the research design and described how the study was designed and executed. It began by explaining and justifying the chosen ontological and epistemological stances, research paradigm, methodology, and methods. The chapter explored the theoretical underpinnings of the chosen methodology and their fit with the longitudinal multi-case study method. A critical comparison with alternative philosophical stances, specifically critical realism and pragmatism, was provided to demonstrate reflexivity and to clarify the rationale for adopting a relativist ontology and

interpretivist/constructivist epistemology. An account was given of the choice of case study organisations, and the data collection and analysis approach was outlined to ensure transparency in the research process. The chapter also discussed the implications of the research design for the preliminary conceptual framework, highlighting how methodological choices have shaped and refined the framework in response to empirical insights. Finally, key considerations for qualitative research, including issues of validity, reliability, and ethics, and their implications for this study were articulated.

Chapters 4 presents the stories from the field in the form of case studies.

4 Stories from the Field

This chapter is the book of evidence for this thesis. It is presented in the form of a case narrative report for each of the case study organisations. In each case study narrative, an account of the sequence of phases and stages, unfolding activities and IS artefacts as they relate to the IS strategy development and strategic alignment process and associated Executive Manager engagement is documented.

Each section outlining the case study narrative follows the same structure as outlined in the table below.

Table 12 - Case Study Organisations, Selected Episodes, and Structure of Case Study Narrative

Case Study Organisations (CSO) and Selected Episodes	**Structure of Case Study Narrative**	**Content**
CSO 1: Electricity Supply Board Networks (ESBN) **Selected Episode:** ESBN Powering Ahead Programme **CSO 2:** Gas Networks Ireland (GNI) **Selected Episode:** IT Applications Strategy Development Project **CSO 3:** Uisce Éireann (UÉ) **Selected Episode:** ICT Strategy Development Project	Company Overview	A brief description of company history and scope of services provided are outlined.
	Business Strategy Overview	A high level summary of business strategy and objectives are outlined as a backdrop of the selected episode covered in the following section.
	IS Strategy Development and Strategic Alignment Episode Overview	Overview of the selected episode for IS Strategy Development and Strategic Alignment in the case study organisation is provided.
	Selected Episode	A detailed case study narrative covering the observed phases and stages, and associated activities and IS arte-facts developed in each phase. This section serves as the book of evidence for the first and second research sub-questions.
	Executive Engagement within the Selected Episode	A detailed case study narrative focusing on the nature of the executive engagement observed within the selected case study episode. This section serves as the book of evidence for the third research sub-question.

Each case study is presented in a way that is faithful to longitudinal qualitative multiple case study design outlined in the previous chapter. This chapter ends with closing remarks.

4.1 Case Study Organisation 1 | Electricity Supply Board Networks (ESBN)

4.1.1 Company Overview

ESB Networks (ESBN) is a subsidiary of Electricity Supply Board (ESB), which is a state-owned electricity company in Ireland. ESB Networks is responsible for the transmission and distribution of electricity throughout the country. The company operates the electricity transmission system, which includes the high-voltage transmission grid and the distribution network that delivers electricity to homes and businesses. ESB Networks is responsible for operating and maintaining a transmission and distribution network that spans the entire country. The company's network includes 157,000 km of overhead networks, 26,000 km of underground cables, over 800 high voltage substations, and 2.4 million households and businesses around the country. The company works closely with the Commission for Regulation of Utilities (CRU), which is the regulatory body responsible for overseeing the electricity sector in Ireland.

4.1.2 Business Strategy Overview

ESB Networks' recent business strategy - Networks for Net Zero Strategy - reflects major changes in the external environment since 2017, including a significant increase in global, European and national commitments to achieve net zero greenhouse gas emissions. This has driven deeper reliance on electricity and an associated need to ensure that zero carbon electricity is reliable and affordable. Climate change is one of the greatest challenges facing humanity and it is widely accepted that rapid and unprecedented action is required to limit greenhouse gas (GHG) emissions to avert the worst consequences of climate change and protect both current and future generations. ESB Networks' business strategy is well-aligned with Ireland's national energy policy and the company's commitment to supporting the transition to a low-carbon future. ESB Networks' aims to enable the delivery of the Government's Climate Action Plan 2023 and supports the decarbonisation of electricity by 2040, which will enable the achieving of Ireland's net zero ambition no later than 2050.

The diagram below outlines an overview of ESB Networks' strategic objectives.

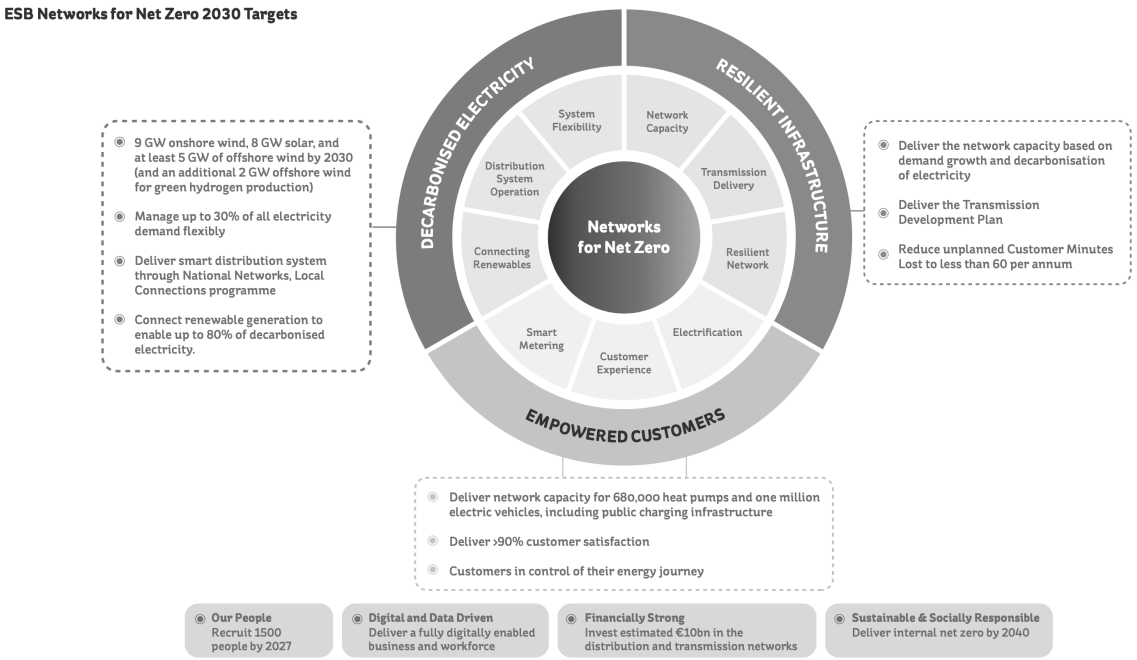


Figure 9 - ESB Networks' Strategic Framework

Over the years, ESB Networks has played a crucial role in the development of Ireland's electricity infrastructure. The organisation has invested heavily in the development of new power generation capacity, including hydroelectric, peat, and natural gas-fired power plants. It has also expanded and upgraded the transmission and distribution networks to meet the growing demand for electricity. In recent years, ESB Networks has been at the forefront of efforts to decarbonize Ireland's electricity sector and continues to play a vital role in the country's transition to a low-carbon future.

4.1.3 IS Strategy Development and Strategic Alignment Episode Overview

The Powering Ahead Transformation programme is selected as the case study episode for this research. The Powering Ahead Transformation programme is a significant initiative set by ESB Networks to transform the country's electricity system and help it transition to a low-carbon future. The programme was focused on delivering a number of key objectives including; Decarbonisation, Electric vehicles, Smart grid, Customer engagement and Innovation.

4.1.4 Selected Episode | ESBN Powering Ahead Programme

The programme has the following phases as outlined in the figure below.

- Strategic Alignment
- Strategic Design
- Shaping & Prioritisation
- Solution Planning
- Product Delivery



Figure 10 - Powering Ahead Programme Phases

The summary list of deliverables, as outlined in the figure below, are produced across the phases and they are further explained in the remainder of this section.

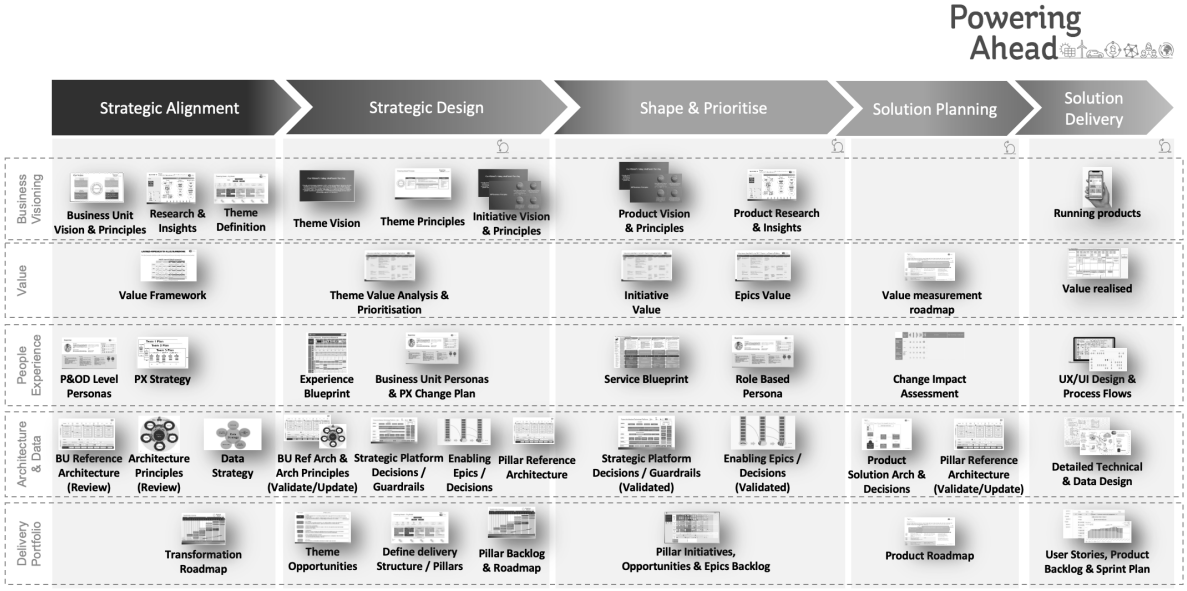


Figure 11 - Powering Ahead Programme Phases and Deliverables

4.1.4.1 Strategic Alignment

The objective of this phase is to set transformation vision and direction in the forms of principles and guidelines to support the creation and delivery of identified initiatives.

The remainder of this document outlines the stages and outcomes achieved within this phase.

4.1.4.1.1 Mobilisation

The programme was kicked off with Mobilisation stage to prepare for workshops over 4 consecutive days. Over 100 employees attended 4-days workshops with participants including CEO of ESB, Managing Director of ESB Networks, Executive Managers, Managers, leaders and key staff across ESB Networks. The key purpose was to re-integrate various departments (which have gone through several organisational structure changes) and to better address the challenges ahead. However, this initiative was significantly different than the previous attempts of re-organisation efforts and establishing the involvement of all hierarchical levels to the event. ESBN appointed a Transformation Programme Manager directly reporting to Managing Director of ESBN before the programme launch to establish and ensure the importance of the programme and expected impact on the overall organisation. This served as a clear signal to the entire ESBN organisation that this initiative was not just another change or restructuring effort. Instead, it represented a transformative journey that ESBN aimed to co-create across all levels, in response to the complex business, technological, regulatory, and environmental challenges ahead.

4.1.4.1.2 Visioning

The Visioning stage included several workshops over the 4 days period and took a multiple phased brainstorming approach including “Futures View”, “Outside-In”, “Outside-Out” and “Mobilise” workshops. The purpose of the workshops were to build a shared understanding of plausible potential futures based on high-impact scenarios, disruption hypotheses and top opportunities for ESBN to act upon. ESBN participants explored opportunities to shape their preferred future and create a strategic roadmap that will drive transformation.

4.1.4.1.2.1 "Futures View" Workshop

The objective of this phase was to envision possible futures to identify strategic growth platforms for ESBN organisation. The following figure outlines the workshop purpose and objectives for "Futures View" phase.

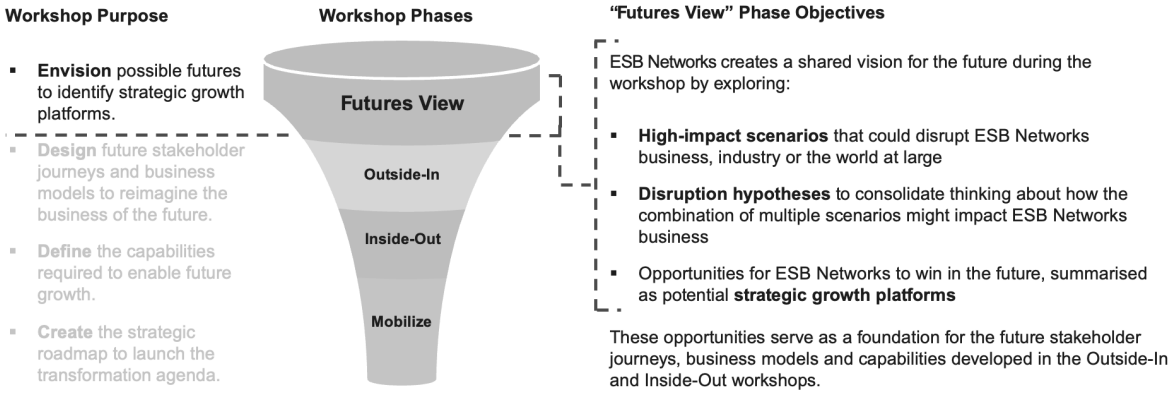


Figure 12 - Futures View Phase Approach Summary

The outcomes outlined above (i.e. high-impact scenarios, disruption hypothesis, strategic growth platforms) serve as a foundation for the future stakeholder journeys, business models and capabilities related discussions in the Outside-In and Inside-Out workshop phases.

4.1.4.1.2.2 "Outside-In" Workshop Phase

The objective of the Outside-In phase was to translate future opportunities from the "Futures View" workshop into aspirational, yet realistic user journeys and future business models that will support long-term strategic growth for ESBN. The ultimate goal and notion in this phase was to position ESBN at the centre of renewable energy and network management and technology advancements by actively addressing evolving client expectations and staying ahead of emerging competition. The following figure outlines the workshop purpose and objectives for "Outside-In" phase.

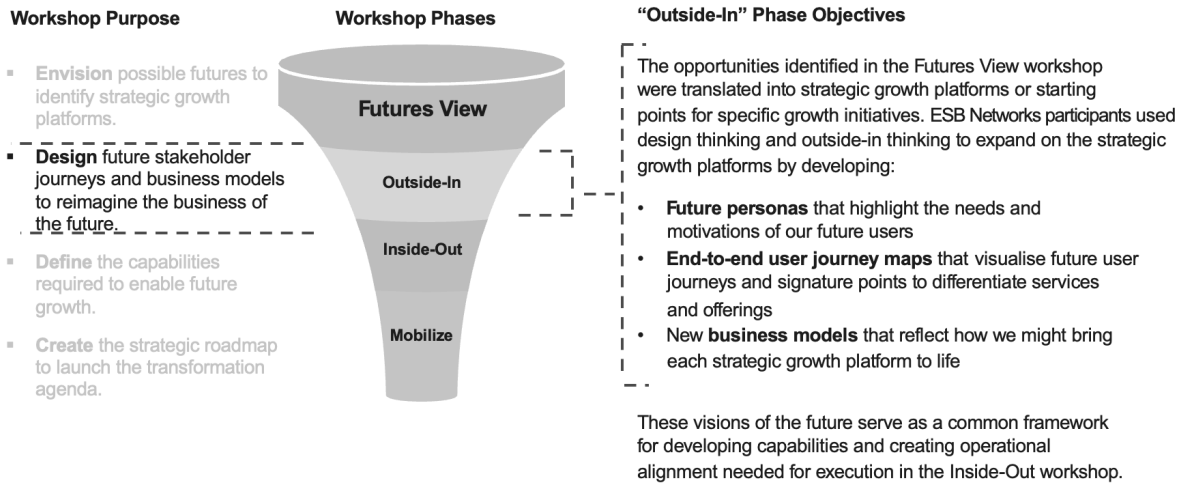


Figure 13 - Outside-In Phase Approach Summary

The Outside-In workshop helped ESBN team to translate future opportunities from the Futures View workshop into aspirational yet realistic user journeys and future business models that will support long-term, strategic growth.

4.1.4.1.2.3 "Inside-Out" Workshop Phase

This phase built on the discussions from the Futures View and Outside-In workshop phases to identify the capabilities and transformations required to realise the benefits of ESBN's strategic growth platforms. The objective of this phase was to focus on the ESBN's internal resources, capabilities, and processes to develop its business strategy. With this approach, ESBN sought to identify its core competencies, strengths, and areas of expertise that could be leveraged to create competitive advantages and unique value propositions. The main goal was to optimise and streamline internal processes, improve efficiency, and reduce costs. The following figure outlines the workshop purpose and objectives for "Inside-Out" phase.

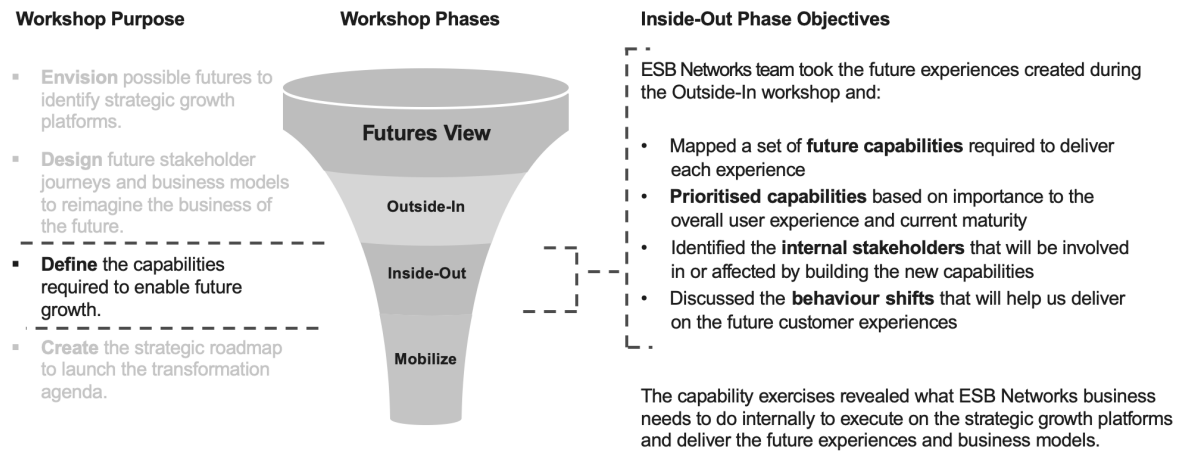


Figure 14 - "Inside-Out" Phase Approach Summary

Most of the attendees considered this phase as an assessment of how things are done in the organisation, and how things should be done going forward. Attendees were asked to evaluate the level of change needed across five key categories that represented their operating model including people, process, technology, governance and organisation design. This approach aimed to create a more inclusive, caring, and collaborative culture, ensuring employees feel valued and empowered to contribute to the Powering Ahead Programme execution success.

4.1.4.1.2.4 "Mobilise" Workshop Phase

With a vision for the future in mind and a shared understanding of the capabilities that are required to realise future opportunities, the Mobilise phase had the ESBN team to detail the strategic direction and commit to working towards the strategic growth platforms defined. The following figure outlines the workshop purpose and objectives for "Inside-Out" phase.

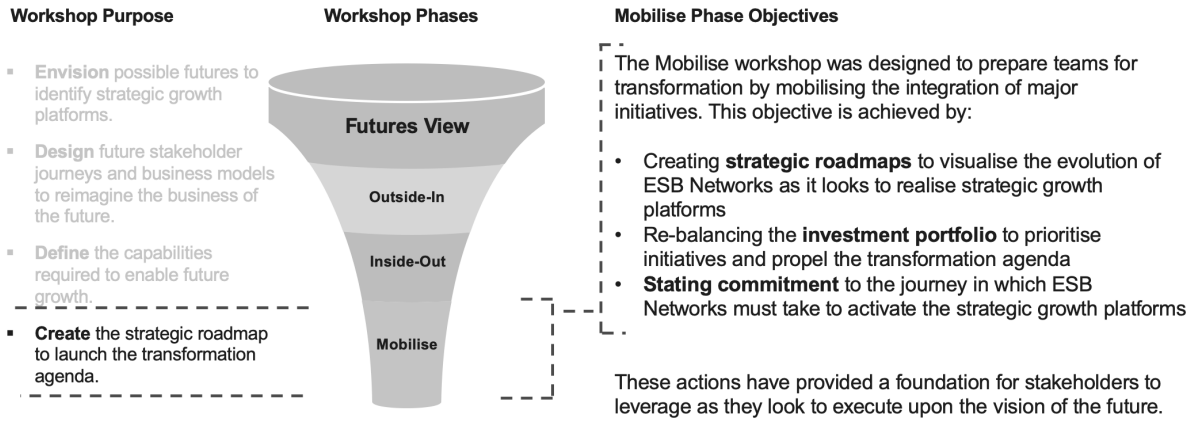


Figure 15 - "Mobilise" Phase Approach Summary

4.1.4.1.2.5 Summary of Mobilisation and Visioning Phase

Both outside-in and inside-out approach led outcomes have brought together a balanced way to drive a roadmap for the transformation that will enable ESBN to be customer-centric while maintaining strong operational efficiency, resulting in sustainable growth and competitive advantage. Commenting on their observations from the workshop, one of the attendees noted that "*Workshops helped me to understand what my company was trying to do, they were helping us to build a shared understanding of possible futures in light of high-impact scenarios and disruption hypotheses. This helped me and my team to explore opportunities that we can pursue to shape our preferable future, it was at high level and conceptual, but inspiring, and it was different than what I have seen previously in my working experience in the last 37 years at ESB Networks*" (E4).

The main objective of taking a "Futures View" approach was to introduce the concept of "transformation" as opposed to "change" to a very large group of ESBN staff across several managerial and operational levels including Executive Managers, Managers and key staff, emphasising the need to adapt and grow rather than simply cutting costs. Commenting on the experience in attending the workshops, one of interviewees notes that "*the key message during the workshop sessions was the difference between "change" and "transformation". While change is incremental and slow, transformation is almost instantaneous. An analogy was used to illustrate this concept: a caterpillar transforming into a butterfly. Although the butterfly is fundamentally different from the caterpillar, they share the same essence*" (E3). In the same interview, she also

shared what of the senior leaders noted in the workshop "*Instead of aiming for a faster, stronger caterpillar, the focus was to be on embracing the butterfly – a completely different yet more efficient and effective entity".* This perspective from the leadership team emphasised the need for a significant shift in mindset and approach to drive the organisation's growth and success.

The sessions focused on the vulnerabilities of the business to external disruptions, such as changing national policies, climate change, government regulations, and customer behaviours, environmental and sustainability concerns, and emerging technologies. Sharing her experience, one of interviewees stated that "*Historically, we have always focused on cost-saving initiatives, such as the "Bright Ideas" campaign that encouraged all staff to be proactive in identifying hazards and cutting costs. However, the current situation was different, as we had more work than we can handle and we are receiving all the funding our network grid need from the regulator. For the first time, we are considering to bring in more third party contractors and recruiting external employees, such as electricians, instead of solely relying on internal training programs. The focus was now on growing the company at a rapid pace to meet increasing work demands*" (E5).

The following diagram outlines the outcomes of this phase aligned with the mobilisation and visioning phase workshops.

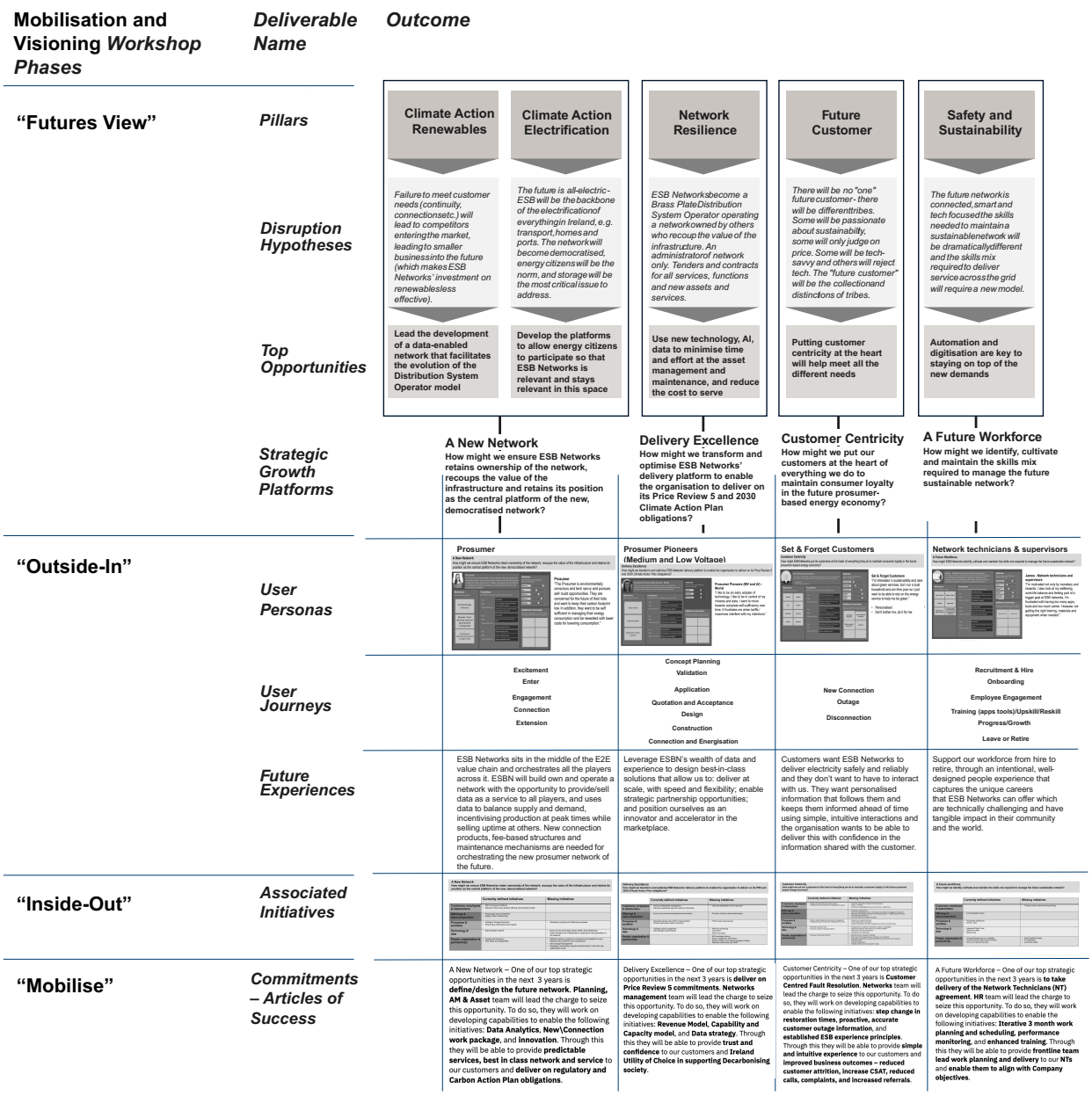


Figure 16 - Outcome Summary of Mobilisation and Visioning Phase

The senior leaders provided a mandate for change and invited input on how to best achieve transformation within the business. This resulted in a more inclusive and diverse range of ideas, allowing participants to feel engaged and valued. One of the key outcome of the initial phase was for technology teams to get permission to engage with engineering and business functions to deliver on the strategic growth platforms. Sharing an observation from the workshop, one of interviewees stated that "*...what this actually was a "permission" from the senior leaders to pursue transformation within the business*

and that they would tell us how they felt we could best transform. So what was going to come out of the end of this, was a mandate from the business for a change and transformation and it wasn't like we did before we outlined what we needed to do… you [business and engineering teams] *tell us because we* [technology team] *are with you, but we have been dedicated to this so you can tell us what you feel we need to focus on and then we will go ahead and we will focus on that on your behalf*" (E3). The concept of "permission" refers to the process of social alignment and gaining support from executive stakeholders to engage with their staff. It involves discussing challenges, agreeing on solutions, and addressing obstacles by referring back to the initial agreements and commitments. This approach helped creating a strong foundation for implementing change management initiatives, ensuring that all parties are on-board and working towards the same goals.

4.1.4.2 Strategic Design

The objective of this phase is to identify and frame high value opportunities within the each of the strategic growth platforms for transformation that results in the expected benefits and value for customers and employees within the ESBN business.

4.1.4.2.1 Structuring the Powering Ahead Programme

The nature of the workshops and ways of working during the mobilisation and visioning phase was at fast pace, daily outcomes as outlined in the previous section were prepared, however there were further documentation that needed to be completed to fully structure the programme aligned with the outcomes achieved during the workshops. This section summarises the work completed after the workshops with selected set of attendees across the strategic growth platforms. The following deliverables were developed and signed off by the senior leadership team to document and summarise the agreed direction in the strategic alignment phase and to finalise the structure for the programme.

Programme Vision was centred on the key strategic growth platforms with a clear definition for clarity including Customer Centricity, Delivery Excellence, A Future Workforce and A New Network.

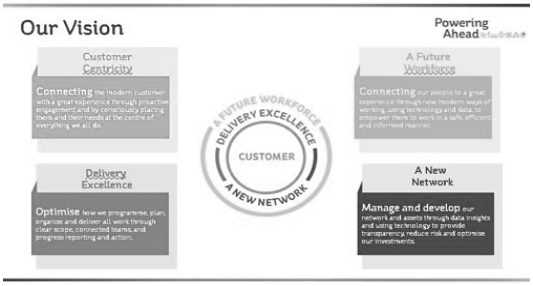


Figure 17 - Programme Vision

Programme Principles were documented in an intentional manner to address some of the key discussions during the mobilisation and visioning phase.

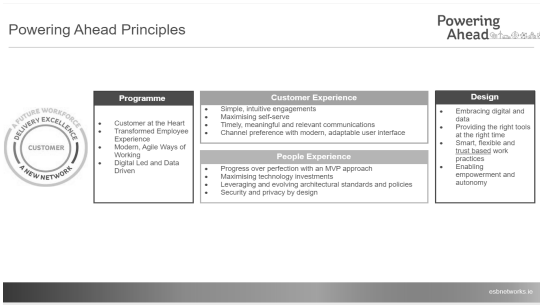


Figure 18 - Programme Principles

Value Framework was developed to cater for internal and external factors and aimed to focus on both the strategic and tactical elements across four streams of value including Customer, ESB, Partners and Society.

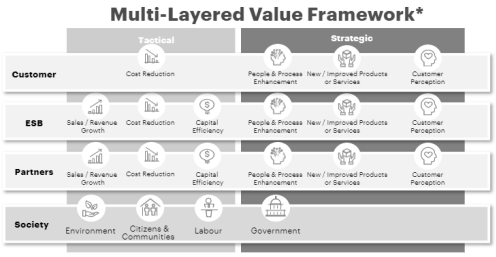


Figure 19 - Value Framework

Once the Value Framework agreed, a methodical approach to baseline value including cost and benefits gathering, and assessment approach for initiatives across the programme was established.

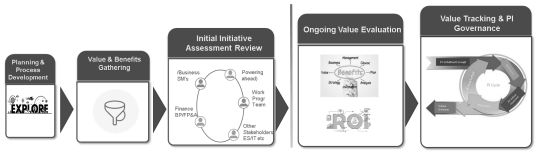


Figure 20 - Value Framework Stages

The approach also catered for the ongoing evaluation and tracking process to ensure overall governance for the value realisation. ESB Networks Business and Engineering Leads, including Finance and respective business areas working in

collaboration to define the value baseline and monitor the realisation of value was one of the key success factors for the programme.

Programme Organisation Structure was formed to ensure that the roles and responsibilities across the programme team, business and engineering function stakeholders are clearly defined and resource arrangements are put in place. A Transformation Management Office (TMO) was established to run the programme and to ensure successful execution.

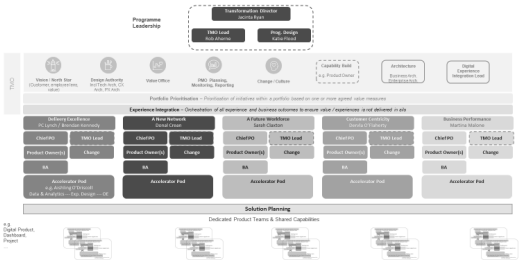


Figure 21 - Programme Organisation Structure

Programme Governance was formed to ensure that the current and future components of the Powering Ahead Programme are delivered effectively and efficiently with the purpose of establishing a framework for decision-making, accountability, and oversight that ensures programmes are delivered on time, within budget and to the required quality standards. Key components of the programme governance included an overarching Programme Board covering all strategic growth platforms, Design Authority, Value Office and TMO.

Transformation Roadmap was one of the key deliverables in the Strategic Alignment phase and required several iterations to finalise. In the remaining part of this section, some of the key iterations and the rationale is explained. Commenting on the challenges in the development of the roadmap, one of interviewees noted that "*while ESB Networks business stakeholders had been very focused on their individual tasks, they now started to look across the entire programme and anticipate potential issues in other areas*" (E5). Having a roadmap for transformation emphasised the importance of collaboration, forward-thinking, adaptability and thinking ahead and being prepared to address potential problems, such as backlogs, reporting, and ensuring adequate design capabilities given the complexities and challenges involved

in managing a large-scale transformation programme with multiple moving components.

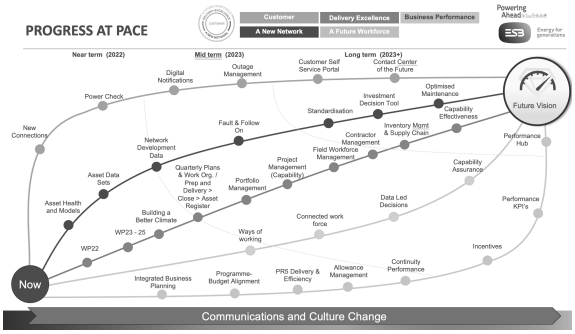


Figure 22 - Transformation Roadmap – Outline

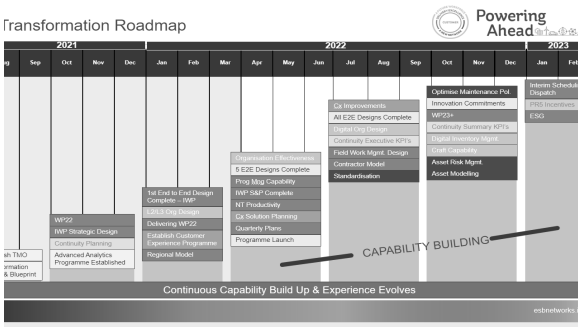


Figure 23 - Transformation Roadmap - Outline (Alternative View)

4.1.4.2.2 Theme Vision and Principles Definition

Theme is defined as a category and consists of related group of initiatives within the key strategic growth platforms. There are several themes defined under each of the key strategic growth platforms including Customer Centricity, A New Network, A New Workforce and Delivery Excellence. In the same context, an Opportunity is a specific area within Themes that has the potential to deliver value to the organisation.

The objective of defining **Themes and Opportunities** in the Strategic Design phase is to define opportunities that are linked to single or multiple initiatives. Therefore, in the next phase of the Powering Ahead Programme (Shaping & Prioritisation phase), a clear epic and detailed user journey can be uniquely identified that will lead to the detailed design and delivery of a product/service. A breakdown of Themes, Opportunities within the end-to-end initiatives and strategic

Strategic Growth Platform	End to End Initiative	Solution Theme	Opportunity
A New Network	Advanced Asset Management	Advanced Asset Management	Asset Data
			Asset Models
			Asset Risk
			Network Resilience
			Reactive Orders
			LV/IE
	Advanced Network Development	Advanced Network Development	Data Quality
			Tools & Processes
			Visibility
			Standardisation
			Continuity
	Standardisation	Standardisation	Customer Insight
			LCTA Review
			38kV Station Review
Delivery Excellence	Integrated Work Planning	WP22, WP23, Quarterly Planning, Productivity, Continuity	WP22
			Quarterly Planning
			Delivery Planning Group
			WP23
		Price Review Model	
		Technical Costing	
		Work Organisation	
		Work Execution	
	Integrated Work Planning	BBC Implementation	BBC Implementation (Interim)
			BBC Implementation (Enduring)
		Contractor Management	End to End Commercial Management
			Visibility to Build Capacity
			Performance Management
			Increased Contractor Delivery
			Capability Development
			Building Relationships
			Improving Communications
		Project Management	PPM PoC
			Project Management
		FWMS	Procurement
		CAPEX Close	Backlog Clearance
A Future Workforce	Ways of Working	Networks Capability Development	Craft Capability
			PM Capability
			Data Informed Decisions
		Operating Model	Role of SAM
			Role of Supervisor
	Mobile Workforce	Connected Workforce	
Customer Centricity		New Connections	New Connections
		Outage Management	Power Check
			Digital Notifications
		Customer Portal	Customer Portal
		Contact Centre of the Future	Contact Centre of the Future
Business Performance	Continuity	Performance Hub	Performance Reporting
		Data Strategy & Analytics (Data Lake Foundation)	Delivery Strategy & Architecture
			IaaS intergration
		Continuity	Dashboard build & Governance

Figure 24 - Theme Definition

growth platforms are provided on the right hand side for reference.

Once the themes are defined, the vision and principles for each theme were documented with further detailed information in order to capture detailed requirements and expected features. The diagram below is an example that illustrates the outcome of this activity.

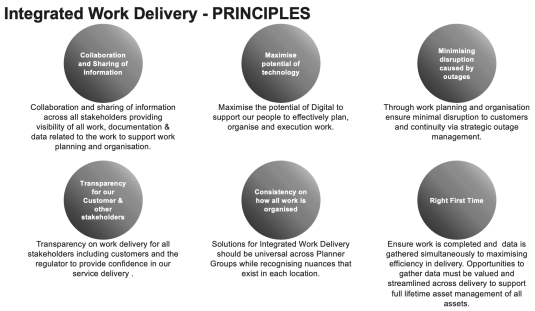
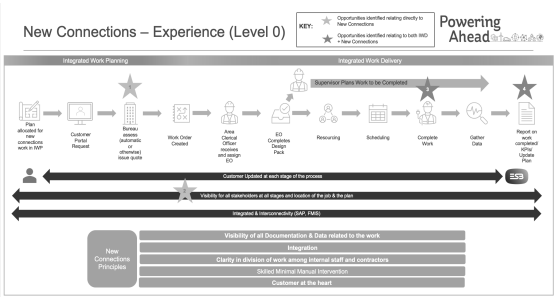


Figure 25 - Theme Based Principles

Theme Based Experience Blueprints developed for a specific theme would focus on a particular aspect of the customer or employee experience given the context defined within the specific theme, such as onboarding, recruitment or purchasing process. The blueprint would outline a visual representation for each step that the customer or employee takes, the touchpoints they interact with, and the emotions they may feel at each stage. It is an approach used in experience design to understand the end user's perspective and identify opportunities to improve the overall experience.



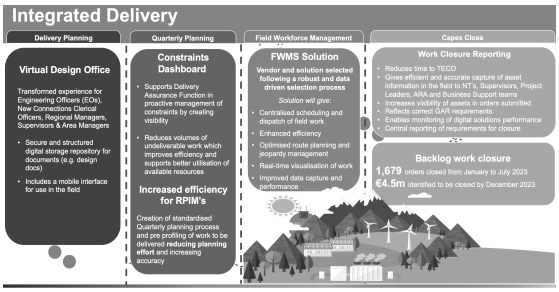


Figure 26 - Experience Blueprints

A **Theme-Based High-Level Value Case** approach is applied to organise and present the value proposition of opportunities identified in each of the themes within the strategic growth platforms of Powering Ahead Programme. This approach helped to highlight the tangible and intangible key benefits and unique value proposition of the identified opportunities. The high-level value case approach was previously identified within the Value Framework to baseline value and assessment approach.

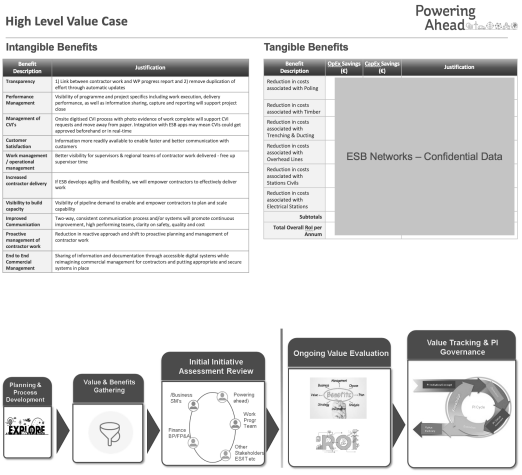
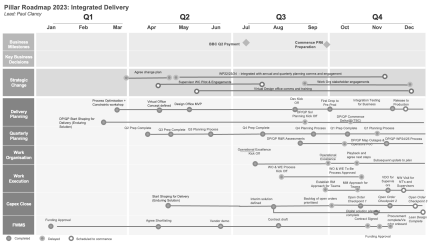


Figure 27 - Theme Based Value Case and Value Framework

The approach also catered for the ongoing evaluation and tracking process to ensure overall governance for the value realisation.

A **Theme Based Delivery Plan** reflecting the underlying opportunities is then developed to outline the dependency and sequence of delivery requirements. A sample delivery plan for Integrated Work Delivery is provided on the right hand side for reference.



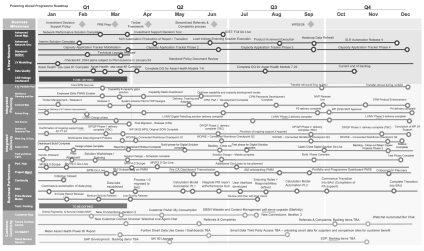


Figure 28 - Delivery Planning Summary

Transformation Management Office also consolidated the overall planning activities across multiple strategic growth platforms to communicate progress on a regular basis to stakeholders.

4.1.4.2.3 Summary of Strategic Design Phase

In the Strategic Design phase, the initiatives that came out of the Mobilisation and Visioning phase were categorised within themes, and associated opportunities and experiences were defined across the strategic growth platforms. To progress the work in this phase, there were several workshops held with ESBN business and engineering teams to ensure alignment with the initiatives identified in the earlier phase and gather more detailed information about how things are done at the operational level. Commenting on the challenges faced in the early stage of this phase, one of interviewees stated that "*I don't want to give you the impression that this has all happened organically and that it has flowed smoothly. You know the phrase, the rubber hits the road, so they started to think... Oh my God. Now we're not up in the air anymore. And I think there was a moment of pause. Because there was realisation that perhaps there was an awful lot of work to do and that the amount of people that we spoke to were quite limited, even though the high level came from everyone across the top level in the company as we started to run workshops, but we weren't close enough to the granularity*" (E4). The additional workshop sessions held with the business and engineering teams, provided a sense-check with the key stakeholders, and helped the ESBN programme team to gather any additional information needed to develop required documentation in this phase.

The finalisation of the High Level Value Case was initially a challenging task due to the lack of clarity on who owns the value and whose responsibility it is to define and sign-off. Commenting on this activity, one of the Executive Managers noted that "*They're finding it difficult to show us where the money is being saved, they know their experiences better. They know their understanding is better and they know they're being driven to make more informed decisions. They know the quality of their conversations with contractors have improved. They can't put a price on that value. But my argument back was no, hold on, you've made the decision. This is business led and business owned. They have to own responsibility for the value*" (E5). Eventually an agreement was reached and the ESBN business and engineering teams took responsibility to define and deliver against the value case. The value that could be realised was within the business and therefore the business decided to continue to invest on the Powering Ahead Programme and related initiatives where it is operationally viable and commercially feasible for them to do so.

4.1.4.3 Shaping & Prioritisation

The objective of this phase is to research solutions to the opportunities informed by customer / employees and data insights, visualised through a “To Be” journey. The remainder of this section outlines the stages and outcomes achieved within this phase.

4.1.4.3.1 User Journeys (As-Is and To-Be) Definition

Building on the Experience Blueprints and Personas developed in the previous phase, **User Journeys** are a visual representation of the steps a customer or employee takes when interacting with a product, service, or system.

The ESBN team developed “As-Is” and “To-Be” User Journeys to illustrate the changes within the end to end process flow, and also identify the epics that will be designed and delivered with a minimum viable product approach in the next stages of the Powering Ahead Programme.

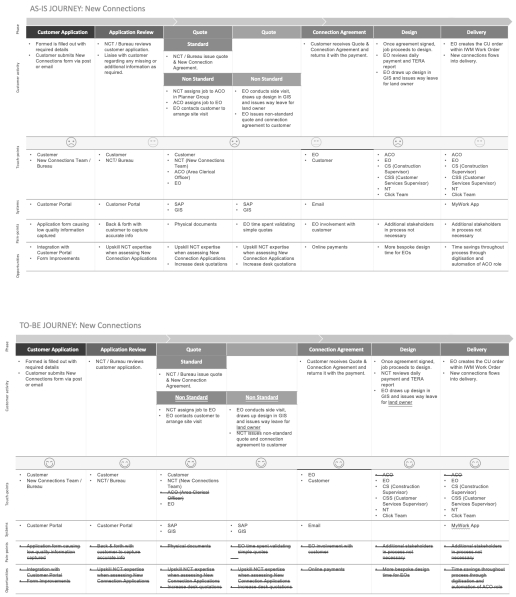


Figure 29 - User Journeys (As-Is and To-Be)

4.1.4.3.2 Epics and Service Blueprint Development

Based on the “To-Be” User Journeys, a series of **epics** are developed. Epics are complex detailed user stories that requires significant effort to complete. It consists of a high-level description of a feature or functionality that needs to be developed.

Service Blueprints, which provide a visual representation of the service consisting of multiple epics, are then developed to outline the end the end experience that the new solution would provide to the involved personas.

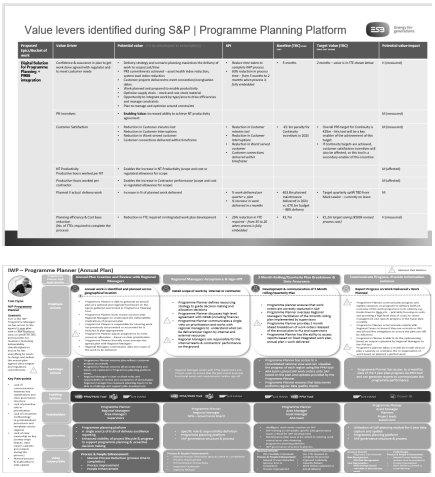


Figure 30 - Epics definition and Service Blueprint

4.1.4.3.3 Fine-Tuned Value Cases and Prioritisation

Each opportunity reflecting the group of experiences previously identified across several themes among the strategic growth platforms were scored based on a criteria set that was previously defined as part of the value framework. Qualification scores were then calculated and final decisions made to further progress the opportunity with senior management approval. Outlining the experiences within each opportunity was useful to define the detailed value drivers

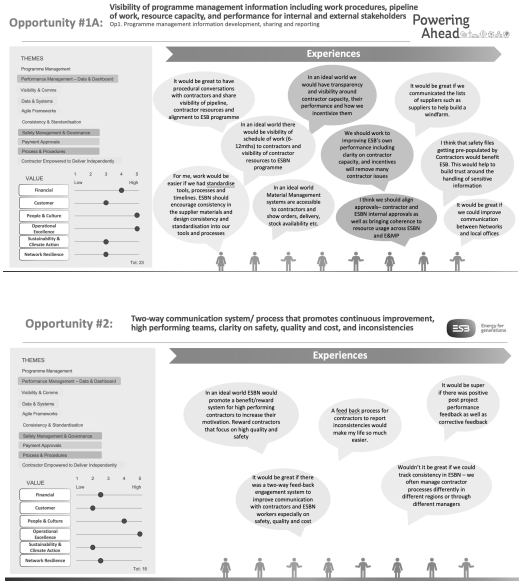


Figure 32 - Experiences Summary and Prioritisation Assessment Framework



Figure 31 - Prioritisation Results Summary

4.1.4.3.4 High Level Solution Architectures and Platforms Design

For User Journeys and associated Epics that are approved to be progressed within the Powering Ahead Programme, ESBN business and IT teams worked together to define the technical solution architecture, impacted systems and data flow across the solution components to ensure smooth delivery of the minimum viable products.

While the impacted individual solution components are identified at solution architecture level, ESBN team also utilised Solution Platform diagrams in order to provide an end-to-end view for the product and data flows that will be delivered in the next stage of the Powering Ahead Programme.

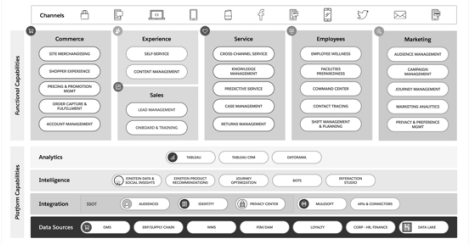


Figure 33 - High Level Solution Architecture

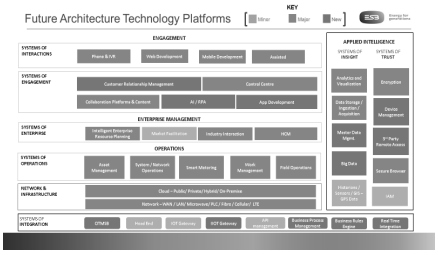


Figure 34 - Solution Platforms

4.1.4.3.5 Summary of Shaping and Prioritisation Phase

Based on the prioritised opportunities, which are linked to initiatives, themes and experiences (defined in Strategic Design Phase), Shaping and Prioritisation phase saw the conversion of those experiences and opportunities into epics and user stories.

The activities associated with the Fine-Tuned Value Cases and Prioritisation was significantly important, not because business took responsibility and agreed on the financial construct for the overall programme, but because it was a key alignment

moment on the vision between business and programme stakeholders. Iterating the importance of these discussions, one of interviewees noted that "*In the programme, you start to do great things and you start to produce these lovely slides and pictures and all this, and then there comes a point where someone says, Okay, we're whatever million in this programme, where's value?. What are we getting out of this? Why are we doing this? And we're always value-driven. So, and then you clearly explained that the reason for this review and prioritisation is to, again, revalidate the permission that was received from them. Business to say that they are still on, they are still aligned, and this is what they want, since things change, it's a kind of alignment validation, it always happens when you're looking for more money*" (E5).

Another social and operational alignment point was observed during the development of User Journeys, Epics and Service Blueprints in this phase. Bringing all linked personas and user journeys touching on the same data model across different epics together on a service blueprint at the granular level provides clarity across all stakeholders, and this drives common understanding and agreement. Deliverables developed in Strategic Design and Shaping and Prioritisation phases were useful to provide answers to questions coming from different parts of the ESBN organisation in the programme review meetings. Experiences were mainly focused on by the Human Resources team, with the Finance team mainly focused on the initial and fine-tuned value cases, while the Business and Technology teams were more interested in user journeys, epics and platform architecture deliverables and finally the Customer Service teams were interested in user journeys and service blueprint. Programme team and senior management was focused on the delivery timelines and value realisation. It is important to note that the level of content to be included in the project deliverables in strategic alignment engagements should meet the needs of everyone who may query or question what is going on and why and when it is being done and so on, in order to keep the momentum on the strategic alignment aspect of the engagement at a sufficient level.

4.1.4.4 Solution Delivery Planning and Handover

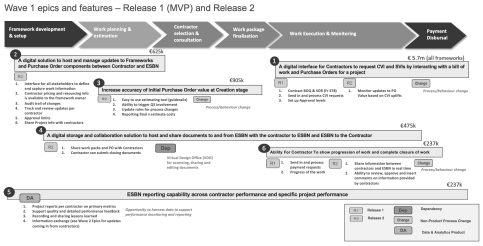
This phase is driven by a time-boxed activity to ensure that strategy and plan engagement is completed, associated solution documentation is completed, and

knowledge transfer properly executed to mobilise and enable delivery teams to start with the right team for the right solution to deliver the agreed value.

4.1.4.4.1 Solution Delivery Planning

The objective of this stage is to ensure everyone is clear on the scope of the initiatives, solution design and plan, cyber-security and change impacts, and the delivery model.

Building on the **Theme Delivery Plans** developed in the previous phase, a further iteration of the planning exercise is completed to reflect on the final user journeys and epics that will move to the execution for the Powering Ahead Programme.



Within the defined epics, a further feature planning also takes place to outline the minimum viable product and its evolution over time (product roadmap) to ensure that the communication among the stakeholders is managed to set the right expectations in relation to delivery of scope and associated timelines.

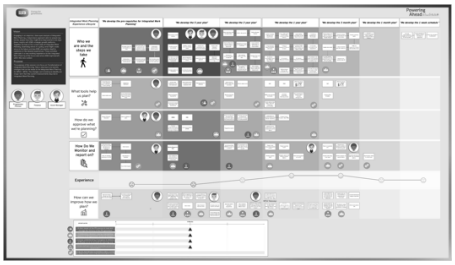


Figure 35 - Detailed Delivery Plan and Product Roadmap

The following activities are required to commence the delivery of products with pace, realising the business value through delivery excellence in this phase.

- Confirmation of resource and skills sets for the delivery
- Agreed core and business teams to support agile delivery
- Programme Board approval to transition to delivery teams to proceed with the execution of the strategy

Key deliverables required in this phase includes;

- Detailed delivery plan, Product roadmap,

- Design Authority approved architectural documents including cyber-security review
- Detailed definition of the Initiatives and detailed plan for delivery
- Change Impact Assessment and Change delivery plan
- Initiative Opportunities and Backlog register
- Change Impact Assessment
- Value Measurement Roadmap

4.1.4.4.2 Hand-Over to Delivery Teams

The objective of this stage is to hand-over and transition the completed IS strategy and plan to the delivery teams for execution. The unit of handover and transition is achieved at the initiative level, as the overall responsibility to ensure execution of the agreed strategy still stays with the ESBN Transformation Programme governance. The delivery teams reporting to the IS and business functions under the existing project portfolio delivery processes will then iteratively develop products for customers or employees, with prioritisation based on potential business outcomes and value to be delivered. Although the strategy related engagement is completed, there are still further engagement needed between engineering, business and technology related stakeholders in the delivery phase. In this phase, cross-functional teams, including business and engineering end users, product owner, technical developers, UI/UX developers, technical architects, change management resources and data and analytics developers are aligned around a shared vision for the product with clear goals and purpose – with the diversity of knowledge and skills to independently make quick, effective decisions and to deliver value based on prioritisation with the Product Owner.

The following activities are required to deliver products with pace, realising the business value through operable products in the delivery of the initiatives that are considered under strategy execution.

- Delivery of modern engineering practices and tooling to enable built-in quality
- Follow good industry standards for UI/UX, Backlog management, Code and other outputs
- Release schedule aligned policies and standards

- Exploration / innovation spikes, where appropriate – providing feedback through relevant governance forum
- Escalation of decisions to relevant key business or system decision forum
- Delivery of value measurement within user stories for implementation
- Revision of value case and epics via programme board to ensure alignment in the event of detecting variations from the agreed design from the previous phase, when and if needed.

Key deliverables produced during the delivery execution includes;

- Revised User Stories and Epics
- Iterative Product Backlog and Sprint Plan
- UX/UI (User eXperience/User Interface Design and Process Flows
- Detailed functional, technical and data design documentation
- Developed and tested Code
- Test strategy, test plan, test phases, and test results summary
- Training plan and delivery
- Running products and tracking on value realised
- Project status reports and governance board updates
- Transition to support teams

4.1.5 Executive Engagement within the Selected Episode

4.1.5.1 Engagement Types and Schedule

Over the course of the Powering Ahead Programme, series of engagement types were introduced and those evolved during the programme. The remainder of this section outlines the engagement types and their timing in a consolidated manner. As an overview of the engagement types and their timing, the table below summarises the timing, scope and depth of the Executive Management engagement during the Powering Ahead Programme.

Table 13 - Executive Engagement Types and Schedule – Case Study 1

Engagement Type	Audience	Timing	Scope	Depth
Mobilisation and Visioning Sessions	Inter-group	One Time Only for 4 days	Wide	Low
Programme Board	Inter-group	Recurring	Wide	Low
Project Management Forum	Intra-group	Recurring	Wide	Low
Deep-Dive Sessions	Inter-group	Ad hoc	Narrow	High
Scheduled Sessions	Intra-group	Ad hoc	Narrow	High
Regular One-to-One Sessions	One to One	Regular	Wide	Low
Informal Reach-Outs	One to One	Ad hoc	Narrow	High
Cascading Key Communications	Inter-group	Regular (Monthly, and when needed)	Wide	Low
All-Hands Attendance and Business Updates	Inter-group	Regular (Quarterly)	Wide	Low

4.1.5.1.1 Mobilisation and Visioning Sessions

Mobilisation and Visioning sessions were the initial stage in the Strategic Alignment phase of the Powering Ahead Programme. Over hundred employees attended four-days workshops with participants including CEO of ESB, Managing Director of ESB Networks, Executive Managers, Managers, leaders and key staff across ESB Networks. The key purpose was to re-integrate various business functions to better address the business challenges ahead. Participation of Executive Managers were mandated by the Managing Director to ensure that the voices of the top management across business functions are heard as part of the brainstorming sessions. In the workshops, Executive Managers contributed and encouraged all attendees to raise their ideas, concerns and requested ongoing collaboration and support for the programme. This has helped to engage and motivate other leaders and employees and their attendance in the workshops also helped to create a sense of urgency and importance around the programme and to build momentum and support for the changes ahead.

4.1.5.1.2 Programme Board

A programme governance structure was formed to ensure that the current and future components of the Powering Ahead Programme are delivered effectively and efficiently with the purpose of establishing a framework for decision-making, accountability, and oversight that ensures programmes are delivered on time, within budget, and to the required quality standards. Key components of the programme governance structure included an overarching Programme Board covering all strategic growth platforms, Design Authority, Value Office and TMO.

Commenting on the interaction within the Programme Board meetings, one of the Executive Managers stated that "*...all the dashboards in the world isn't going to make a difference, It needs the dashboards to give visibility and insights, but then it needs action to address the issues. ...likewise, I was in there with the board as well and it was for that to get their buy in to show them the direction of travel to and in some cases to get a bit of challenge as well because they might say, 'are you sure you're going the right way or have you considered X, Y or Z?' and that's good. I like that because then at least they're paying attention. There's nothing worse than if they're all that and then they just forgotten me as soon as I've left the room, you know, that that's not going to work, we are fortunate that we have that buy in, you know, but like we have so much work to do that, like that's our burning platform, which kind of helps as well, you know, and we can't, the way we've delivered in the past isn't going to deliver for the future*" (E10). Another interviewee, who also shared her experience from the Programme Board meetings, noted that "*So I suppose that's maybe at a summary level what typically what we get from them, it's the alignment, it's the access to resources. It's their help with influencing and their insights into the business is key as well, so there will be times when we run up against an issue where often the executive will understand and suggest an approach that we might be able to take to open a door or whatever it might be*" (E8).

Programme Board meetings were also helpful for Executive Managers to have a platform to have candid conversations within the formal agenda set out for the governance meeting. Having a "safe place" within their peers allowed them to be open and ask questions that they would not consider asking in meetings with wider audience including their full reporting chain. This level of openness provided for a more informal environment than in the formal sessions, and enabled a better engagement. One of the

Executive Managers noted that "*...we kind of changed that steering from a traditional - IT driven, very structured meeting - to more an informative one around how we presented them first with the initiative. We were carrying out the governance of the of the program, but also a slightly more informal conversations around what it actually meant for their teams*" (E9).

4.1.5.1.3 Project Management Forum

Project Management Forum meeting structure was formed in alignment with the programme governance for each of the strategic growth platforms. The Programme Management Forum, with the attendance of Executive Managers and Senior Managers within the relevant pillar, meets on a monthly basis (in the middle of the month) formally to ensure progress is on the right track or if there are any risks or issues or decisions that needs discussion.

Commenting on the importance of Programme Board and Project Management Forum structure, one of the Executive Managers stated that "*...when the programme was set up, it was very clear that we weren't going to get very far unless we had executive management team support, because you know what's priority to the executive team becomes priority to everybody else... we've been at pains to make sure that they have been involved in that because there's a lot of change management in implementing digital and the digital tools are the easy bit, but it's actually getting people to change the way they work and how they do things and let go of some of what they are used to and what they're more comfortable with in some instances is the biggest challenge and without executive managers involvement, buy in to that we're going nowhere*" (E10).

4.1.5.1.4 Deep-Dive Sessions

Executive Managers requested deep-dive session to be arranged when they wanted to know more about a specific user journey or epics to better understand the issues being addressed or when they wanted to see the early demos for the new solutions being developed.

Deep-dive sessions were either requested by Executive Managers in order to get a detailed view of the discussion topics or proposed solutions, or scheduled by the programme team to ensure that all relevant and detailed information needed to get decision finalised by the Executive Managers.

4.1.5.1.5 Scheduled Sessions

Scheduled sessions with the Executive Managers are considered as a less formal setting where the programme team can get together to review detailed issues/risks. These sessions are also used to prepare the Executive Managers for the upcoming programme board meetings. Commenting on the value of scheduled sessions, one of the Executive Managers noted that "*To ensure we get strategic alignment so to ensure that it that what we're proposing to do matches with what their strategic requirements are. So we'll speak to them early on to make sure that we understand where they're thinking is. We'll often go then progress things in our side and then present it back to them to make sure that we're still aligned with what their requirements were, and then as we progressed with the initiative, we will have our regular updates then which enables us to continue that so that's kind of strategic alignment pieces is kind of key*" (E8).

4.1.5.1.6 Regular One-to-One Sessions

Powering Ahead Programme structured regular one-on-one sessions between Executive Managers and senior programme team members (including senior managers in the programme or direct reports) to improve communication, coaching, engagement, performance, trust, and retention, contributing to a positive work environment and organisational success. Commenting on the benefits of having informal meetings, one of the interviewee stated that "*...it is more informal and actually that's useful because then when I actually do go into the formal meeting once a month, he is almost always up to speed*" (E12). Suggesting a required balance between the informal and formal engagement with Executive Managers, one of the senior managers noted that "*They prefer the one to ones as in that informal where there's no slide deck, we're just talking about it, and probably I do as well to be truthful so that we can chat about it rather than me presenting and they listening, you know, maybe asking a few questions to be honest,*

that's way more effective, but it's not always practical. I do think you need a certain level of rigour to make sure that you have that formality to a certain degree. There's a balance to be got like if you were doing it all by over the coffee break. That wouldn't work either" (E11).

4.1.5.1.7 Informal Reach-Outs

Informal reach-outs are used judiciously and with appropriate frequency within the Powering Ahead Programme by the business leads to reach out to Executive Managers. In most of the cases, the discussions were helpful for both parties, but in a few instances, the topics were required to be discussed within the programme board as the view of others were needed to have a resolution. In these rare instances, Executive Managers requested business leads to bring the points up in the next board session. Executive Managers were aware that informal reach-outs should not replace formal decision-making and communication channels, however they were supportive to provide coaching on progressing the issue to support the business leads. Commenting of the value of informal engagement, one of the interviewee mentioned that "*Some of the richest conversations I would have had with some of the executive team would have been just like them phoning for maybe something specific and then us just having an opportunity to talk for ten to fifteen minutes and maybe cover a number of topics and probably I get a better insight during those conversations than they do an hour of a formal meeting from a personal point of view, myself, like, you know"* (E12).

4.1.5.1.8 Cascading Key Communications

Cascading key communications through Executive Managers helps to ensure that the recipients pay required attention to the key message within the communication. This approach works much better compared to receiving email updates from a task id or programme office staff. During the Powering Ahead Programme, ESB Networks TMO prepared several communications and requested relevant Executive Managers to send it via their email distribution lists, where relevant. The scope of these communications included important updates on the programme, progress reports for staff, an upcoming event to encourage participation, and reminder on upcoming training sessions, or

enforcing messages for using the new systems and processes where relevant. The objective of leveraging Executive Managers as a channel to communicate key messages was to ensure that key communications reach a wider audience, is read with required attention by the recipient in a timely and impactful manner.

4.1.5.1.9 All-Hands Attendance and Business Updates

Powering Ahead Programme progress and achievements were continuously communicated to all staff in several channels, and regular all-hands staff events had its own slot allocated for the programme. In every quarter, a specific topic was selected and presented by one of the Executive Managers as part of the overall all-hands staff event agenda. Another main channel to communicate the programme progress and updates including achievements and/or upcoming key milestones was internal communications sent by Executive Managers. A series of digital communications in the forms of email, infographics, video message or link to programme related intranet sites were cascaded to all staff on a regular basis.

4.1.5.2 Nature of Engagement

The overall aim of any engagement within a business context is to build a strong, supportive relationship across management layers, fostering a positive work environment and promoting professional growth to enable organisational success.

The remainder of this section provides further insights on the nature of the engagement with Executive Managers.

4.1.5.2.1 Inputs Provided by Executive Managers

The nature of any engagement is complex. Researcher decided to breakdown this complexity by providing an input and output perspective, with the table below outlining the key domains of the input and contribution provided by Executive Managers during the ESB Networks Powering Ahead Programme.

Table 14 - Inputs provided by Executive Managers - Case Study 1

CSO	QUOTE	OPEN CODE
CSO1	"Their input is very real, they are managing the balance with government's priorities – housing connections gets priority over connecting wind-farms – as housing is an issue for the government... So when we come to them and we report up to them to say that "this is all that's happening and what we plan to do" and they'll go – "Yeah, I know, but we're talking to Leo Varadkar (Taoiseach) last week, and this is a big issue for the government. So this is what I want you to focus your time" " (E4).	Government & Regulatory Priority Influence; Strategic Direction & Alignment; Strategic Prioritisation
CSO1	"I would have also needed some communications from them because sometimes if I had a group of managers, some of them were not interested in, in digital transformation, they were more interested in keeping the lights on in the network and they didn't see initiatives as a benefit for them" (E12).	Change Sponsorship & Advocacy; Stakeholder Engagement & Buy-In; Communication Facilitation
CSO1	"... I would go and set up a meeting with my senior sponsors. I call them, you know, so there's a lot of kind of lobbying of the senior stakeholders outside of the governance. Not, I don't have enough like a cadence or an official meeting. But I have like, you know, they would say to me, listen, anything you need, you just ring me, you text me, you put in 20 minutes in my calendar and we can talk through it. And I availed of that... we would have our pillar meeting then they would, they invited me to their team meeting which starts to kind of widen it out as they would have a row of senior managers on the second level" (E11).	Informal Lobbying & Relationship Building; Stakeholder Engagement & Buy-In; Executive Support; Governance Participation
CSO1	"I get pushed back several times, you know, as I say, they have a lot of experience. So they say, 'well, look, I'm not sure about that, did you consider X, Y or Z?. And sometimes they give me pause for thought and just say, oh, I need to just have a look at that again, check that, reach out to a contact or etc, which is good" (E6).	Constructive Challenge, Asking Questions, Confirmation and Checks
CSO1	"We were conservative, I think in some ways in the value that we said we would realise and even with some of our bigger initiatives, the business came back to us and said, no, I think you're probably understating the value that this will bring in the future. So we will have to cover ourselves in terms of what we will return" (E9).	Value Assessment & Realism; ROI & Business Case Focus; Value Contribution
CSO1	"I find it's a really good sounding board, you know, these are really experienced people so they're really good where I have risks or issues that I can talk them through with them and they can even help me to crystallise solutions or mitigations" (E7).	Soundboarding; Providing Clarity
CSO1	"In some instances, executive managers are taking things to managing director to check the direction, do we have an appetite for Industrial Relationship (IR) issue, any appetite to get in to re-negotiation on contracts etc. – they are using the transformation programme team to think at the low level and come back with solutions and consequences" (E6).	Escalation to Senior Leadership; Delivery Planning & Sub-Strategies; Strategic Direction
CSO1	"I've delivered a number of products, but there's a lot more in the backlog and they were querying how I'm prioritising the next suite of them like we all had agreed the first ones, but how I'm doing that, who I'm bringing with me, who's, who's helping me to make that decisions and have suggested that they want to get more involved in in that decision making as to how I'm prioritising the next suite of dashboards that are going to be developed, which is good" (E5).	Prioritisation Decision-Making; Stakeholder Engagement & Buy-In; Decision Influence; Strategic Prioritisation
CSO1	"It drives the technology delivery people mad that, you know, you may come with a different priority because they deal in like backlogs and in a very structured way, but like the business might be the business might say, OK, no, I just want to do this and I want to change, why can't you just move your resources on, on to something else? So we have had a few examples where that has happened. But we're trying to iron out trying to make sure that we have full visibility of what might be coming. And it gives us a bit more control" (E12).	Prioritisation Decision-Making; Continuous Alignment Validation; Change Advocacy; Resource Access and Enablement; Strategic Prioritisation; Technology Guidance
CSO1	"They would ensure and they would help us to access the right resources based on priorities, it would help us to I suppose influence across the program, when and if we need that as well" (E8).	Resource Access & Allocation; Cross-Functional Influence; Resource Access and Enablement; Strategic Prioritisation

CSO	QUOTE	OPEN CODE
CSO1	"First of all, insights into the way that they are thinking. The challenges that they have. What's in their mind, what is important to them. And I suppose it's, it's giving you an insight as to what it takes to kind of operate one level up. It therefore helped me just in the job in terms of knowing where to focus and where to maybe prioritise. But even just from a personal level, I learn from them and see where they're effective and how they communicate and what way that the executive team tend to operate so that I can" (E12).	Senior-Level Insight Sharing; Personal Learning from Executives; Communication Facilitation; Critical Challenge; Insight Sharing; Strategic Prioritisation
CSO1	"...they need to walk the talk as well, they have to change a little bit as well, as I keep saying to them, you know, we can push out some of these tools, but they need to be pulling from them as well saying, are you using the new project management methodology? Are you using the new dashboards that are there in front of you? Are you using the new models? So they can drive that change by asking those very simple questions, you know, because we need that, we can't do it on our own, like because there isn't enough of us, you know. So we need the business, the business leaders to be Advocate Centre as well and to be pushing for that change and lead by example" (E10).	Executive Role Modelling; Change Sponsorship & Advocacy; Change Advocacy
CSO1	"the intangible bit is harder to quantify but they can really see that, we did have a value meeting a couple of weeks ago with them and they want us to do a bit more work in it. That's going to be iterative, but it won't stop until we see the value" (E12).	Value Assessment & Realism; Value Contribution
CSO1	"...our initiatives are based off value scorecards. We have that initial view of value and what kind of value we would bring to the business and some of the bigger initiatives, you know, around field work, field, workforce scheduling, etc. You know, it's probably easier to calculate full time equivalents that we might achieve that, that value with the other, with some of the other initiatives, the value was hard to calculate, and we were more unlocking the business in terms of digital transformation. So we had a list of tangible kind of value in terms of Euros, but also a list of intangible benefits that this would bring, you know, around digital capability, unlocking the business, new ways of working, streamlining, improving processes using kind of standard you know, it's hard to calculate what in Euros" (E9).	Value Assessment & Realism; Value Contribution
CSO1	"...they're probably getting like there's a lot of money being spent on powering ahead programme so that they need to know that it's been spent wisely and that they can stand over it as an executive. So by being informed, they have that comfort" (E11).	Continuous Alignment Validation; Stakeholder Engagement & Buy-In
CSO1	"In the programme, you start to do great things and you start to produce these lovely slides and pictures and all this, and then there comes a point where someone says, Okay, we're whatever million in this programme, where's value?. What are we getting out of this? Why are we doing this? And we're always value driven? So, and then you clearly explained that the reason for this review and prioritization is to, again, revalidate the permission that was received from. Business to say that they are still on, they are still aligned, and this is what they want, since things changes, it's a kind of alignment validation, it always happens when you're looking for more money" (E5).	Continuous Alignment Validation; ROI & Business Case Focus; Change Advocacy; Document Review; Strategic Direction; Strategic Prioritisation; Value Contribution
CSO1	"They're finding it difficult to show us where the money is being saved, they know their experiences better. They know their understanding is better and they know they're being driven to make more informed decisions. They know the quality of their conversations with contractors have improved. They can't put a price on that value. But my argument back was no, hold on, you've made the decision. This is business led and business owned. They have to own responsibility for the value" (E5).	ROI & Business Case Focus; Stakeholder Engagement & Buy-In; Decision Influence; Value Contribution
CSO1	"We're in the media today because of this, we have to sort that out first" (E5).	Government & Regulatory Priority Influence
CSO1	"Historically, we have always focused on cost-saving initiatives, such as the "Bright Ideas" campaign that encouraged all staff to be proactive in identifying hazards and cutting costs. However, the current situation was different, as we had more work than we can handle and we are receiving all the funding our network grid need from the regulator. For the first time, we are considering to bring in more third party contractors and recruiting external employees, such as electricians, instead of solely relying on internal training programs. The focus was now on growing the company at a rapid pace to meet increasing work demands" (E5).	Growth & Resource Expansion; Resource Access and Enablement; Value Contribution

CSO	QUOTE	OPEN CODE
CSO1	“I suppose they helped us in our prioritisation, I guess that's linked with the strategic alignment but help us in in prioritising certain things as well. Although that's probably usually done more level down, But they definitely had a role in prioritisation and that typically within the program, it is based on the value being delivered so we will assess for each initiative for each component of each initiative but value we expect to deliver by undertaking it, and that would feed into our prioritisation analysis which we would then present back to them to confirm what way we're going and get their confirmation that they're happy with that”, (E6)	Prioritisation Decision-Making; Strategic Direction & Alignment; Strategic Direction; Strategic Prioritisation; Value Contribution
CSO1	“Then you can see the storm coming as there is a conflict between the executives on a specific issue. I like to probably divide and conquer. So I would like to meet the 1 to 1 and, you know, see where they're coming from, see what the issues are. Just try to understand why they're different. It doesn't mean, it always gets resolved sometimes you get some, well, you know, you get a different answer so you just have to work with what you got. But that's ok. You know, because we're learning as we go, transformation by its nature is disruptive and it makes people uncomfortable” (E10).	Conflict Mediation; Stakeholder Engagement & Buy-In; Insight Sharing
CSO1	“Like one of the things that I find are very useful for is that they typically know somebody who's got that high in the organization will have a very good feel for. What the politics of the organization are and who you need to speak to or what approach you might take to particular individual and they'll often give that insight which enables me to be more effective” (E12).	Organisational Politics Navigation; Senior-Level Insight Sharing; Insight Sharing
CSO1	“They're just steering us as to where they want the investment to go” (E6).	Strategic Direction & Alignment; Governance Participation
CSO1	“We discuss and finalise that it is the decision that this is the right way to go” (E10).	Executive Approval & Sign-Off; Decision Influence
CSO1	“Executive Managers provide direction and they provide approval at a high level on the direction of travel, I suppose they make sure that we have that strategic alignment along the way” (E11).	Strategic Direction & Alignment; Formal Approval; Strategic Direction
CSO1	“... when we're trying to change, say for instance, when we're trying to change the way the program team work, just as an example there, it's really important that their senior manager and other senior managers see the need for that. So that the people that were trying to change their work because we're giving them these tools actually want to do with them. you know what I mean? Because they say ‘oh well, it's really important to my manager, So it's important to me’ ”(E10).	Change Sponsorship & Advocacy; Stakeholder Engagement & Buy-In; Change Advocacy
CSO1	“In certain circumstances they can assist us in in reaching across the functional areas and helping us to deliver, help us to influence, help us to get decisions made and help us to understand who we need to engage with. That was definitely where we got a lot of value from them”. (E6).	Cross-Functional Influence; Organisational Politics Navigation; Decision Influence; Value Contribution
CSO1	“I suppose their support is absolutely vital for us to have credibility, because like, we're changing the ways of working for an awful lot of people in ESB Networks. So when we're doing that, it could be seen as change for changes sake, because we've done a bit of that in the past to be fair. And so it's really important that the senior team are behind it. Because that's a credibility thing and perception can be as important as the reality, you know” (E11).	Credibility Building; Change Sponsorship & Advocacy; Change Advocacy; Executive Support; Value Contribution
CSO1	“I just feel that support is really important and even to know that I have that support there in the background that I think that's probably the biggest thing I get out of it” (E12).	Credibility Building; Stakeholder Engagement & Buy-In; Executive Support
CSO1	“Like even to be able to say the executive management team are behind this gives it credibility, that in itself is support” (E6).	Credibility Building; Executive Support; Value Contribution
CSO1	“Recently at that one of the business team meeting, one of the Executives talked about the product recently delivered, and said that ‘I've used this and you should all use it’. So it's great hearing it from him, somebody completely independent of my pillar, this adds hugely to that credibility” (E10).	Credibility Building; Storytelling & Tailored Messaging; Value Contribution

4.1.5.2.2 Outcomes Gained by Executive Managers

The table below outlines the key domains of outcomes gained by the Executive Managers via their engagement with the Powering Ahead Programme.

Table 15 - Outcomes Gained by Executive Managers - Case Study 1

CSO	QUOTE	OPEN CODE
CSO1	“...they probably get more out because they're more informed coming out of it, you know, they know where things are at” (E10).	Informed decision-making, Strategic awareness
CSO1	“they can see the benefits for their teams. So like some of what we're delivering is going to make life easier for their teams. Like the work is going to be coming at them, but it's going to help them to improve the process or have more insight so that they can do better decision making” (E8).	Team empowerment, Process improvement, Decision support
CSO1	“...sometimes they have to hear things a few times before they realise that actually, yeah, it's important that we keep going with this” (E10).	Strategic reinforcement, Message clarity
CSO1	“They learn from us, because we're very much focused on bringing them digital technologies and tools. The key to that is us engaging them regularly and bringing ideas, showing them what the options are, showing them what the analysis is, not in depth now, but just making them aware of what else is going on both around and within the organisation, but within the industry and the learning that we get and showing them those options and that broadens their horizon or broadens their thinking as well in turn allows them or enables them to be better managers” (E6).	Digital literacy, Managerial development, Industry/Market awareness
CSO1	“You can see that coming across in the language that they use and how they engage with people and there's definitely a level of excitement about there being involved in something that I suppose is new for ESB networks and they're seen as leaning and leading out on it, at a personal point of view, I think they are definitely gaining from it” (E8).	Personal growth, Organizational leadership, Positive sentiment
CSO1	“But I suppose the what I'm saying to you, we didn't follow like we kind of blended the steering as a kind of a formal stroke, informal safe space to discuss the transformation. It wasn't just the governance of the pillar, it was more around what this would mean - Are we on the right direction? - What does it mean for you? So it was more a kind of a conversation at times than just that governance piece. And I think that's what really kind of engaged the senior stakeholders because they were in a safe space where they could ask questions about the transformation and what it meant. And, you know, they didn't have all the answers either and I didn't have all the answers. So we were kind of going on a bit of a journey together and then, and so we got our business done as in the governance, but we also were able to have room for those informal conversations on that monthly meeting” (E7).	Collaborative engagement, Safe space for dialogue, Transformation ownership
CSO1	“Decision Making in changing the ways of working – coming with great idea when they are seeing the demos – Demos and discussion with exec managers, is supporting crosspollination of ideas - is engaging them to come up with very operational ideas, not necessarily the right and best ones, but engagement and mind-sharing... role of programme team is to put a structure, and align to the overall programme and consider implications and consequences of these ideas – it is encouraging learning and thinking at all levels” (E6).	Idea generation, Cross-functional learning, Operational insight
CSO1	“...they're probably getting like there's a lot of money being spent on powering ahead programme so that they need to know that it's been spent wisely and that they can stand over it as an executive. So by being informed, they have that comfort” (E11).	Financial accountability, Executive confidence
CSO1	“...they're getting that and they're able to go back to their own teams and say, look at this is going to come here. Now, you're not going to be looking in ten different places for this information. It's going to be in the one place for instance. It's been tested, it's been through a rigour, so they can say to their teams that I have confidence in it and this is what I want you to manage it through” (E10).	Team communication, Confidence in implementation

CSO	QUOTE	OPEN CODE
CSO1	“So when they started to see the fruits of the labourers clearly, then they started to be more interested, and I suppose it gives them more kudos as well. If I'm delivering, they are my sponsors, so they will get the benefits of the programme on their business results” (E12).	Program benefits, Executive sponsorship
CSO1	“All of our initiatives should be helping the executives to achieve their KPIs or their goals, objectives. So everything that we do should somehow either directly or indirectly assist them in achieving those. And most of what we do, you can fairly directly link to their objectives. I suppose that's the key thing that they get” (E8).	Strategic contribution, Goal alignment
CSO1	“Engaging with the Powering Ahead Programme provided Executive Managers and their function within the organisation an extra bandwidth to build capabilities for their teams. They took advantage of the additional resources, skills and digital capabilities, which were not specifically built-in within their function, provided by the programme to deliver those initiatives for the programme. Those initiatives, in other circumstances, could take a very long time for their own people to be able to coordinate, plan, and deliver. Whereas the Powering Ahead Programme enabled them to build these capabilities more efficiently and effectively to be able to deliver on their business objectives” (E12).	Capability enhancement, Resource leverage, Efficiency gains
CSO1	“We will raise up to them the things that we feel are important to them. As an example, if that is about options analysis piece that we need to present and get their buy-in on the recommended option, at a high level when you're looking at different potential technologies that you that you could use by presenting that to them and showing them how we came to a preferred option, that is an education in itself” (E12).	Option analysis, Stakeholder education
CSO1	“The key to that is us engaging them regularly and bringing ideas, showing them what the options are, showing them what the analysis is, not in depth now, but just making them aware of what else is going on both around and within the organisation, but within the industry and the learning that we get and showing them those options and that broadens their horizon or broadens their thinking as well in turn allows them or enables them to be better managers” (E6)”	Idea sharing, Industry/Market awareness, Managerial development
CSO1	Where's value?. What are we getting out of this? Why are we doing this? And we're always value driven. So, and then you clearly explained that the reason for this review and prioritization is to, again, revalidate the permission that was received from them. Business to say that they are still on, They are still aligned, and this is what they want, since things change, it's a kind of alignment validation, it always happens when you're looking for more money” (E5).	Efficiency identification; Funding constraints

4.2 Case Study Organisation 2 | Gas Networks Ireland (GNI)

4.2.1 Company Overview

Gas Networks Ireland (formerly known as Bord Gáis Networks that was established in 1975, as a semi-state company by the Irish government to replace a series of small, city-based gas companies) is a wholly owned subsidiary of Ervia, established pursuant to section 5 of the Gas Regulation Act 2013. It carries out activities with respect, inter alia, to the construction, operation and maintenance of and the provision of services with respect to Gas Networks Ireland's transmission and distribution networks used to transport natural gas to and within Ireland.

Gas Networks Ireland (GNI) operates and maintains Ireland's €2.8bn, 14,725km national gas network, which is considered one of the safest and most modern renewables-ready gas networks in the world. The gas network is the cornerstone of Ireland's energy system, securely supplying more than 30% of Ireland's total energy, including 40% of all heating and almost 50% of the country's electricity generation. By working to replace natural gas with renewable gases, such as biomethane and green hydrogen, and complementing intermittent renewable electricity, Gas Networks Ireland is supporting Ireland's journey to a cleaner energy future. Ireland's gas network was repurposed in the 1980s, from town gas, which consisted of a hydrogen blend, to natural gas, and energy transition from natural gas to renewable gases such as biomethane and hydrogen will happen in the coming decade.

4.2.2 Business Strategy Overview

GNI is a business with a purpose in 'Keeping Ireland's energy moving' and a challenging vision 'To be at the heart of Ireland's energy future'. Consequently, its strategy is that of a business focused on both 'performing' to meet the current energy demands of consumers and stakeholders and 'transforming' its assets and services to meet Ireland's future energy needs. The diagram below outlines an overview of GNI's strategic framework.

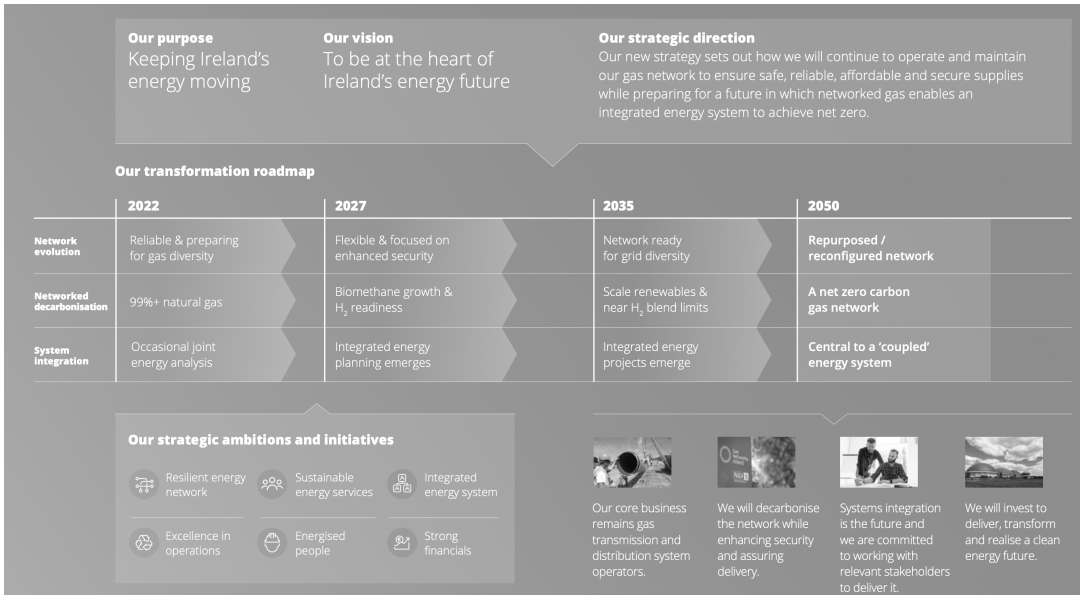


Figure 36 - Gas Networks Ireland's Strategic Framework

Decarbonising the gas network and increasing integration and interoperability between the gas and electricity systems will enable Ireland to achieve net zero by 2050 in the most cost effective and least disruptive way while enhancing energy security and diversity. The objective of the strategic framework as outlined in Figure 1 is to enable the transportation of renewable gases (biomethane and hydrogen) to complement intermittent renewable electricity and, as Ireland's energy system integrates, GNI will provide for scale storage and efficient transportation of green hydrogen.

4.2.3 IS Strategy Development and Strategic Alignment Episode Overview

The objective of this project was to develop an application strategy to ensure the application estate aligns with GNI's strategic requirements over the next 3 - 5 years. GNI has approximately 70 line of business applications, of which around 50% are hosted in the cloud, and around 50 Infrastructure applications/tools which are mainly on-premises. Key objectives set for this strategy development project are as follows:

- Reduce Cost: Reduction of OPEX costs over the course of the current price control (2023-2027) through rationalisation and consolidation, reduction of complexities and delivery of efficiencies. This supports the "Strong Financials" strategic initiative of GNI business.

- Modernisation: Delivery of an enterprise-wide applications landscape that provides modern, future ready, fit for purpose applications to their end users via Cloud adoption, Automation & AI and a future-proof technology roadmap suitable for GNI. This supports the “Excellence in Operation” and the “Energised People” strategic initiatives of GNI business.
- Reduce Cyber Risk: Continually strive to improve GNI’s security posture via enhanced business continuity, availability and resilience, reducing GNI’s attack surface and enhancing identity and access management. This supports the “Excellence in Operation” strategic initiative of GNI business.

4.2.4 Selected Episode | GNI IT Applications Strategy Development Project

The application strategy development project has the following phases as outlined in the figure below.

- Mobilisation
- Current State Analysis (Discovery and As-Is Analysis)
- To Be Architecture
- Business Case and Roadmap



Figure 37 - Phases of GNI Application Strategy Development Project

The summary list of key focus areas and associated deliverables, as outlined in the figure below, are produced across the phases of the project and they are further explained in the remainder of this section.

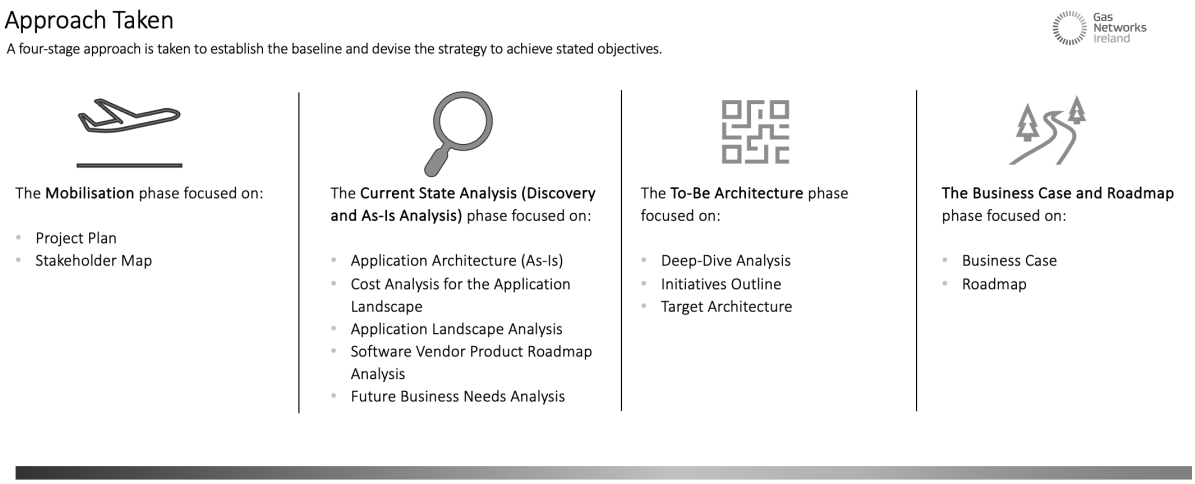


Figure 38 - Deliverables per each Phase for GNI Application Strategy Development Project

4.2.4.1 Mobilisation Phase

The objective of this phase is to mobilise the engagement to ensure that all planned activities are documented, analysed that the design approach to drive the engagement is understood with key stakeholders identified and informed, and that the list of deliverables and their timeline are agreed.

Project Plan included set of key activities and outlined a timeline with key status progress update checkpoints with the executive management team.

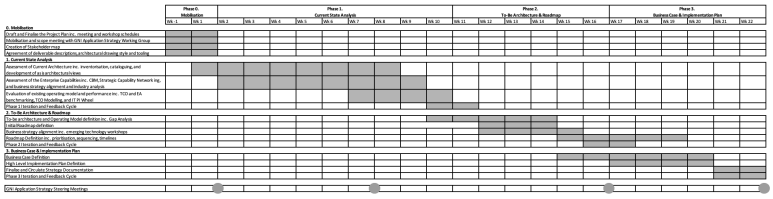


Figure 39 - Project Plan for GNI Application Strategy Development Project

The development of the project plan was also helpful to validate the scope, finalise the format and planned “table of contents”, reviewers and review cycles of each of the deliverables. During the mobilisation, the GNI team also developed a **Stakeholder Map** containing key employee and vendor names (including contact details, and their availability) to attend sessions that can provide input and review and sign off the deliverables. The selection of stakeholders that will contribute to the strategy development was critical for the success of the strategy as GNI IT Executive Manager mandated that the IT strategy should to be developed via collaborative effort, and the output to be owned by the GNI team who will be responsible for executing the strategy.

The GNI team have defined the stakeholders across business and IT functions including key process or function owners, managers who were involved in managing operational functions on a day-to-day basis including infrastructure managers, application managers across a variety of groups, and involve staff who are responsible for IT architecture and IT strategy, business engagement, Finance and Asset operations. With the combination of the project plan and stakeholder map, a project schedule was agreed for interviews and workshops required to progress to the next phase of the strategy development project.

While the water-fall style project planning approach that includes discrete and consecutive phases as shown in the diagram above were adapted; the GNI team experienced several iterative cycles driven by back and forth thinking and discussions on some of the subject domains. This iterative approach led to the execution of the last three phases to be completed in parallel to bridge the gaps, resolve conflicts across competing business requirements, and to gather further detailed information to revise the target architecture, strengthen the quality of the business case and to improve implementation planning.

4.2.4.2 Current State Analysis (Discovery and As-Is Analysis) Phase

Based on the analysis and design approach employed in the application strategy development project, the activities detailed below were conducted to produce the deliverables for review and sign-off that was sought from the Executive Managers.

The objective of this phase was to produce a set of analysis and find facts while outlining current application architecture and operational challenges to establish areas for improvement and change. Application and Infrastructure analysis consisted of a set of focused tasks to understand and document the existing technology landscape and business strategy. Operational observations and existing challenges in IT operations that cover the management, maintenance and support of the existing IT landscape were clearly documented in this phase. Commenting on the Executive Manager involvement in the Current State Analysis phase, one of the Senior Managers noted that "*The level of input from the Executive Managers were limited in the detailed analysis and assessments as the low level details were completed by the subject matter experts and senior*

managers. Executive Managers questioned the process of developing the assessments and requested confirmation that the outcome was agreed collaboratively with the relevant stakeholders and signed-off by the wider team. Looking back, I can say that their input primarily focused on the recommended initiatives and specifically how they are communicated to the wider business" (G4).

Application Architecture (As-Is) – The GNI team developed an inventory of IT landscape including name, detail and scope of each component including applications, infrastructure, network, security etc. Inventory development task was crucial to form the 'as is' Architectural views – for applications, business, data, infrastructure. This activity also focused on the ability of the technology landscape to meet key non-functional requirements (i.e. availability, security, reliability, resilience, disaster recovery, integration etc.) and also included the definition of business pain points, risks, operational issues, and ability to adapt to the future of the GNI business.

Cost Analysis for the Application Landscape - Based on the available cost benchmarks of other utility organisations (provided by Gartner), a review of total cost of operations and ownership for IT applications were analysed. Total cost of ownership analysis surfaced some detailed insights that were not previously known as one of the Senior Managers stated that "*I suppose there were definitely some applications up there at the top that I wasn't expecting" (G5).* The result of this analysis led to the definition of applications that required further deep-dive sessions. One of the Senior Managers commented on the impact of this phase stating that "*Benchmarking with industry peers helped us to understand where we stand in relation to our costs, irrespective of how we perform against the benchmark figures, our goal was still to find initiatives to reduce costs across our applications landscape*" (G5).

Application Landscape Analysis - As part of the current state analysis, the GNI team was also able to define the technical debt and risk based on gathered information in relation to product lifecycles and software product related end of life issues based on the review of software vendors' product roadmap utilised in the current landscape. The GNI team also reviewed the existing Enterprise Architecture principles against good industry practices and recommendations, specifically in the context of architectural, operating model and business strategy.

The information gathered and validated at this phase was critical for the next phase of the strategy development project, as the insights gained formed the initiatives that would shape the future state architecture.

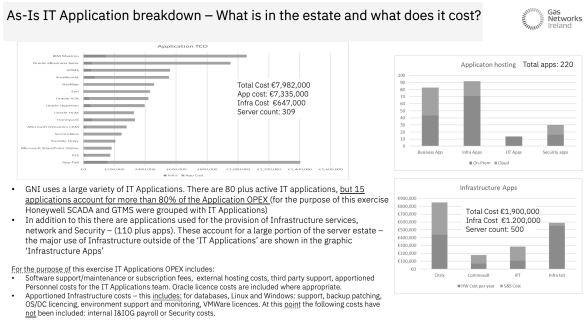


Figure 40 - Total Cost of Ownership Analysis

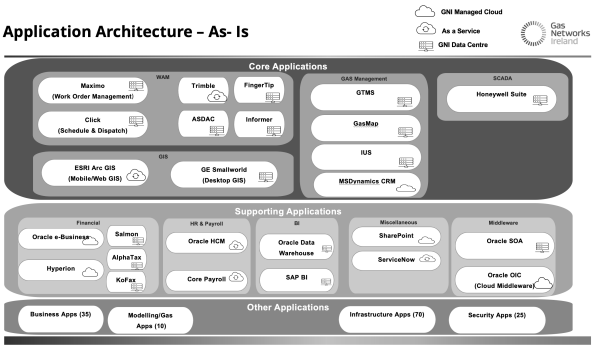


Figure 41 - Application Architecture - As Is

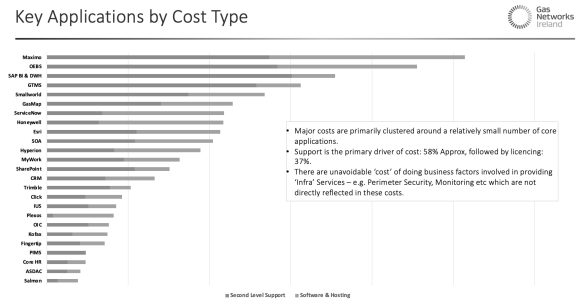


Figure 42 - Cost Analysis for the Application Landscape

Application Landscape Analysis Summary

Gas Networks Ireland

Application	Operational Risk	Future readiness effort	Projected level of change	Potential to reduce cost	Modernisation opportunities
Maximo	Low	Medium	High	Yes	Medium
OEBS	Medium	Low	Low	Yes	Low
Trimble	Low	High	Medium	Yes	Medium
ESRI	Medium	Medium	Medium	Yes	Medium
Smallworld	Medium	Medium	Medium	Yes	Medium
Click	Medium	Medium	High	Yes	Medium
IUS	Medium	High	High	No	Medium
GTMS	Medium	High	High	No	Medium
Gas Map	Low	Medium	High	No	Low
Honeywell	Medium	Medium	High	No	Medium
SOA	Medium	Medium	Medium	No	Medium
HCM/Core	Low	Low	Low	Yes	Medium
CRM	Low	Low	Medium	No	Low
Sycio/Fingertip	Medium	Medium	High	Yes	Medium
Hyperion	Low	Low	Low	Yes	Low

Figure 43 - Application Landscape Analysis Summary

Software Vendor Product Roadmap Analysis - One of the analyses that was conducted as part of the application analysis was also to look at the vendor product roadmaps. This is an important consideration given the technology vendor for the software product that has a critical importance in GNI technology landscape might have differing plans for the future of the product development. The GNI team needed to understand and identify any potential misalignment or unexpected direction for the software product as announced by the technology product vendor. This analysis was completed by both engaging with the software vendor and reviewing the publicly announced software product roadmap.

Future Business Needs Analysis – The GNI team also conducted an analysis of the industry challenges in relation to the required technology required to support the business strategy in the coming period. Gas Management and Operations Technology are

the two domains most likely to be impacted by the GNI Business Strategy and wider energy industry trends. These impacts are not considered as immediate, but Architectural review and Business scenario planning (e.g. what if analysis etc.) is required in the medium term to avoid substantial unplanned cost / potentially operational problems in the future and to allow future budget planning and a detailed regulatory submission in this area.

Planning for future business need in Gas Management and SCADA - Background

Speaking generally, there is a set of common themes across GNI's Retail Gas Management (primarily IUS/GasMap) and Wholesale Gas Management (primarily GTMS). These include:

- The applications are tailored to the Irish Gas Market and GNI Business processes, have been built iteratively over time and are tightly integrated with other IT applications - for all these reasons the applications contain a level of complexity
- There is some concerns about maintaining an operational support model and long term sustainability of the solutions
- The applications are at this point mature, stable and relative to their criticality, cost effective.

In the Operational Technology space, GNI use a tier 1 SCADA system (HoneyWell). There is continued investment in operational process improvement, Infrastructure refreshes, application currency and Security in this domain.

Gas Management and OT are the two domains most likely to be impacted by the GNI Business Strategy and wider Industry change. These impacts are not immediate, but Architectural review and Business scenario planning (e.g. what if analysis etc.) is required in the medium term to avoid substantial unplanned cost / potentially operational problems in the future and to allow future budget planning and a detailed regulatory submission for PC6 in this area.

Key areas of focus of an Architectural review in this area should include ensuring the domain architecture supports:

- appropriate modularity and flexibility to be able to implement new functional capability/ to support future market requirements – especially in the context of gas type diversification/network changes/new business requirements and regulatory uncertainty.
- The ability of the applications to scale to a higher traffic profile
- The ability of the operating model to enact change in a timely manner
- Potential reduction of Oracle costs
- Cloud migration where appropriate

In the context of the above challenges many Utilities have looked at:

- Re-architected Monolith applications to increase modularity to allow the implementation of new requirements faster / cheaper
- Invested in CRM workflow to allow flexibility in business rules for Wholesale and Retailer processes. Modernisation to API driven Architecture in this domain.
- Used Low code / rules engines / Automation &AI to manage exceptions / fall outs, especially for processes involving interactions with Shippers/Retailers etc.
- Invested in 'Digital Labs' to accelerate the ability to respond to tactical requirements – e.g. discrete analytics apps.
- Investment in Data analytics/Data management from both an internal capability requirement, but also to meet regulatory requirements around Open Data.

The potential impact of the GNI Business Strategy and wider Industry change on GNI Gas Management and SCADA is discussed in more detail on the next slide.

Figure 44 - Future Business Needs Analysis

The impact of energy transition in the gas industry are further explored and documented for further discussion with business and technology stakeholders in the IT Management team.

Key Application analysis: Gas Management Future challenges (1/2)

Industry and GNI Business Plan Impact considerations

Change	Retail Gas Process Management (GNI: IUS / GasMap etc)	Wholesale Gas Management (GNI: GTMS etc)	Operational Technology (GNI: HoneyWell etc)
Gas Composition changes/Mix (Renewables etc)	• General: Flexibility and Modularity (new business requirements – ability to implement business rules as config)/ ability to implement change and deal with Regulatory uncertainty. • New retail partners • Potentially higher traffic volume and more complex 'customer' (Retailers/shippers) management requirements	• General: Flexibility and Modularity (new business requirements – ability to implement business rules as config)/ ability to implement change and deal with distinct requirements for different gas types and regulatory uncertainty. • Potentially Complex Monitoring requirements for Gas Blends (calorific value validation/certification/safety) • New Wholesale partners – increased complexity in 'Customer' management – in terms of capacity/flexibility agreements (and auctions etc) • Lower predictability/Higher volatility – change in forecast and management needs – greater demand for analytics/predictive analytics support • What if modeling/Digital twins support • Scalability (higher traffic profile)	• Physical changes in network to be monitored • Changes in monitoring needs e.g. (Potentially Complex Monitoring requirements for Gas Blend, (new sensors/asset types)) • IT/OT Integration to support forecasting needs • Potentially new data points required for regulatory certifications (green gas etc) • Network Scalability challenges.
Grid Diversification	• New retail partners • Higher complexity in analytic needs to support new commercial models	• Network changes: more-entry and exit points to be managed (potentially with bi-directional flow) • Lower predictability/Higher volatility – change in forecast and management needs – greater demand for analytics/predictive analytics support • What if modeling/Digital twins support –e.g. Embed simulation / what if to automate the process for new connections (big gas plants etc) or improve load / capacity forecasting • Scalability	• Additional assets/Asset types to be managed. • Changes in monitoring needs (new sensors/asset types) • More dynamic / flexible connections to manage peaks or congestions • Scalability and new functionality considerations (volatility in network) • IT/OT Integration to support forecasting needs • Inter-connection in control functions (with Electricity) • Increased Security challenge
Grid Intragration with Electricity Network			
CNG Rollout	• New retail partners • New commercial model, usage and distribution patterns (CNG retailers)		• Additional Assets, asset types • Additional and different monitoring needs.

Key Application analysis: Gas Management Future challenges (2/2)

Industry and GNI Business Plan Impact considerations

Change	Retail Gas Process Management (GNI: IUS / GasMap etc)	Wholesale Gas Management (GNI: GTMS etc)	Operational Technology (GNI: HoneyWell etc)
Carbon Capture/Usage/Storage			Changes in network/new asset types. New monitoring needs
Regulatory Changes	• New Reporting needs/Ability to deal with regulatory uncertainty. • Edigas 6.0 regulations / Open data requirements – transparency in decision making (capacity allocation etc) – ability to deal with Customer data requests.	• New Reporting needs/Ability to deal with regulatory uncertainty (e.g. DSO role clarification/Blended gas definitions/Green certificates/GHG Emissions/new reporting requirements) • Edigas 6.0 regulations/ Open data requirements – transparency in decision making (capacity allocation etc) – ability to deal with Customer data requests.	• Potentially new leak detection capability needed (Sensors, AMI etc) • Data capture to support new regulatory reporting needs (ESG etc). • .

Figure 45 - Application Analysis for Gas Management Future Challenges

During the Discovery and "As-Is" Analysis phase, several detailed analyses were conducted to ensure that a single view of every each application and their integration and value across the full technology landscape were fully analysed and understood. The type of analysis included a review of total cost of ownership, application and infrastructure support ticket analysis across all applications, integration patterns and

challenges, business process requirements and role of technology support and gap analysis, and data reporting requirements

At the end of this phase, the GNI team was able to fully understand the business strategy, future industry and technology challenges and evaluate the fit of the current state of the technology landscape. The completion of activities outlined in this phase helped GNI to establish how well these are aligned, what gaps exists as well as reviewing major ongoing business initiatives and identify a set of IT related initial opportunities and initiatives (as shown in the figure below) to further consider in the next phase of the strategy development project.

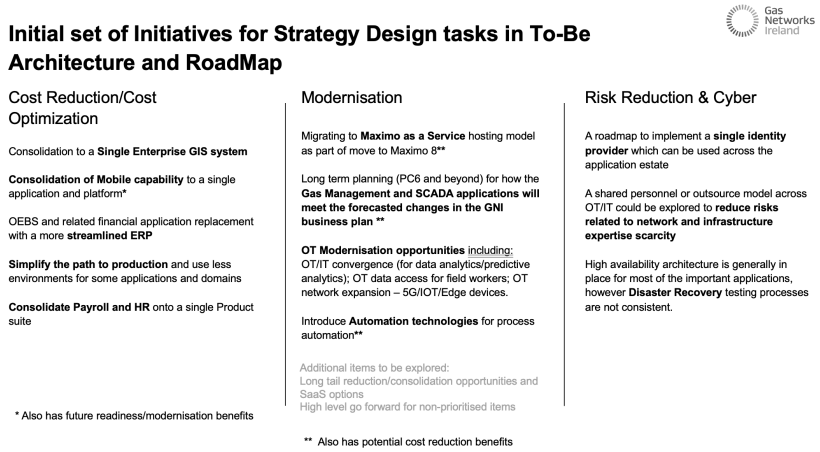


Figure 46 - Initial set of Opportunities/Initiatives for Strategy Design tasks in To-Be Architecture and RoadMap

The completed analysis and evaluations including the initial set of initiatives were presented to the GNI IT Management team (including IT Executive and Senior Managers) to seek feedback and sign-off to proceed to the next phase.

4.2.4.3 To-Be Architecture Phase

The objective of this phase was to establish a future state for the technology landscape that will support the GNI business strategy including its ambition and inspirations for the future. The GNI team conducted a series of working sessions with software vendors and external consultants to identify required initiatives that will bridge the gap by building upon the insights gained in the previous phase.

The GNI team used the architectural views defined as part of the previous phase for a gap analysis in these working sessions. The identification of gaps was derived by the "key questions", and directly influenced by GNI's stated objectives. The following "key questions" were discussed in the working sessions:

- What are the future requirements / What are the Strategic drivers for future IT Architecture?
- How do we address existing operational issues and risks in the management, maintenance and support of the existing IT landscape?
- How well does IT Support the future?
- What new IT Capability is needed?
- What technology drivers influence our future direction?
- What industry drivers influence our future direction?

Deep-Dive Analysis – During the To-Be Architecture and Roadmap Phase, deep-dive sessions were held to focus on each key application domains that are critical for the GNI business strategy. As an outcome of these sessions, a Deep-Dive Analysis deliverable was developed in relation to the selected initiative. The document included a background narrative covering key features, processes supported by the application, issues and challenges in the IT operations regarding the management, maintenance and support of the existing IT landscape, the actual total cost of the relevant application, view of its current business performance, perceived operational and technical problems and risks, and product roadmap insights gathered.

Commenting on the value of getting the analysis of the current state in detail, one of the senior managers noted that "I*t was the most important step, maybe we did not realise at the time, but we went back to the gathered information several times during the project to look at*

Key Application analysis – Maximo (1/3)

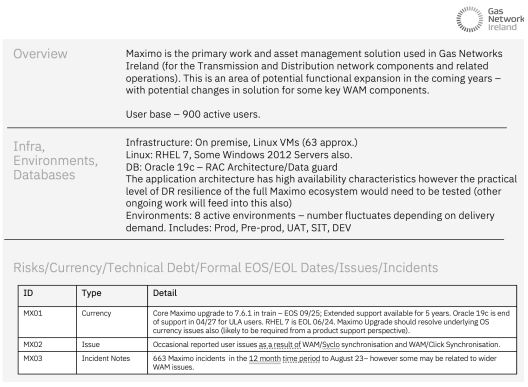
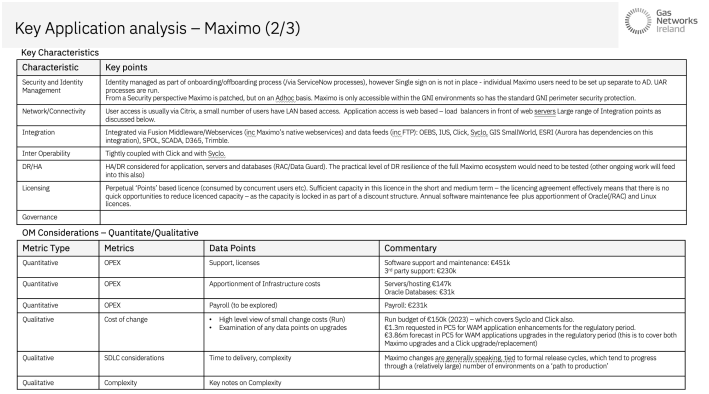


Figure 47 - Application Analysis Examples for Deep-Dive Sessions

the information with different lenses to make sense of what we have, and why. This helped us to come up with new ideas for the future roadmap" (G3).

The diagrams on the right provide the level of detail included in the deep-dive sessions for one of the key applications in the GNI technology landscape.



Key Application analysis – Maximo (2/3)

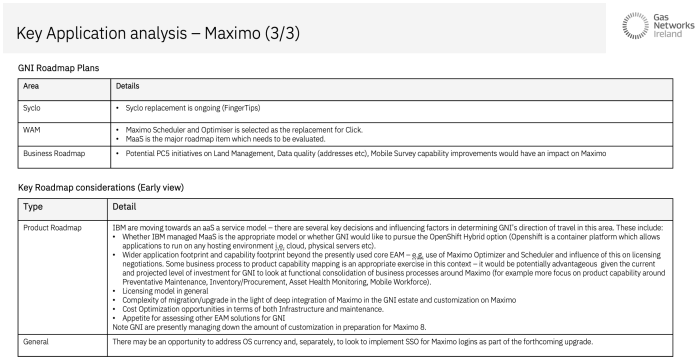
Gas Networks Ireland

Key Characteristics

Characteristic	Key points
Security and Identity Management	Identity managed as part of onboarding/offboarding process (via ServiceNow processes), however Single sign on is not in place - individual Maximo users need to be set up separate to AD. UAR processes are run. From a Security perspective Maximo is patched, but on an Adhoc basis. Maximo is only accessible within the GNI environments so has the standard GNI perimeter security protection.
Network/Connectivity	User access is usually via Citrix, a small number of users have LAN based access. Application access is web based – load balancers in front of web servers Large range of Integration points as discussed below.
Integration	Integrated via Fusion Middleware/Webservices (inc Maximo's native webservices) and data feeds (inc FTP; OEBS, IUS, Click, Syclo, GIS SmallWorld, ESRI (Aurora has dependencies on this integration), SPOL, SCADA, D365, Trimble.
Inter Operability	Tightly coupled with Click and with Syclo.
DR/HA	HA/DR considered for application, servers and databases (RAC/Data Guard). The practical level of DR resilience of the full Maximo ecosystem would need to be tested (other ongoing work will feed into this also)
Licensing	Perpetual 'Points' based licence (consumed by concurrent users etc). Sufficient capacity in this licence in the short and medium term – the licencing agreement effectively means that there is no quick opportunities to reduce licenced capacity – as the capacity is locked in as part of a discount structure. Annual software maintenance fee plus apportionment of Oracle(RAC) and Linux licences.
Governance	

OM Considerations – Quantitate/Qualitative

Metric Type	Metrics	Data Points	Commentary
Quantitative	OPEX	Support, licenses	Software support and maintenance: €451k 3rd party support: €230k
Quantitative	OPEX	Apportionment of Infrastructure costs	Server/hosting €147k Oracle Databases: €31k
Quantitative	OPEX	Payroll (to be explored)	Payroll: €231k
Qualitative	Cost of change	• High level view of small change costs (Run) • Examination of any data points on upgrades	Run budget of €150k (2023) – which covers Syclo and Click also. €1.3m requested in PCS for WAM application enhancements for the regulatory period. €3.86m forecast in PCS for WAM applications upgrades in the regulatory period (this is to cover both Maximo upgrades and a Click upgrade/replacement)
Qualitative	SDLC considerations	Time to delivery, complexity	Maximo changes are generally speaking, tied to formal release cycles, which tend to progress through a (relatively large) number of environments on a 'path to production'
Qualitative	Complexity	Key notes on Complexity	



Key Application analysis – Maximo (3/3)

Gas Networks Ireland

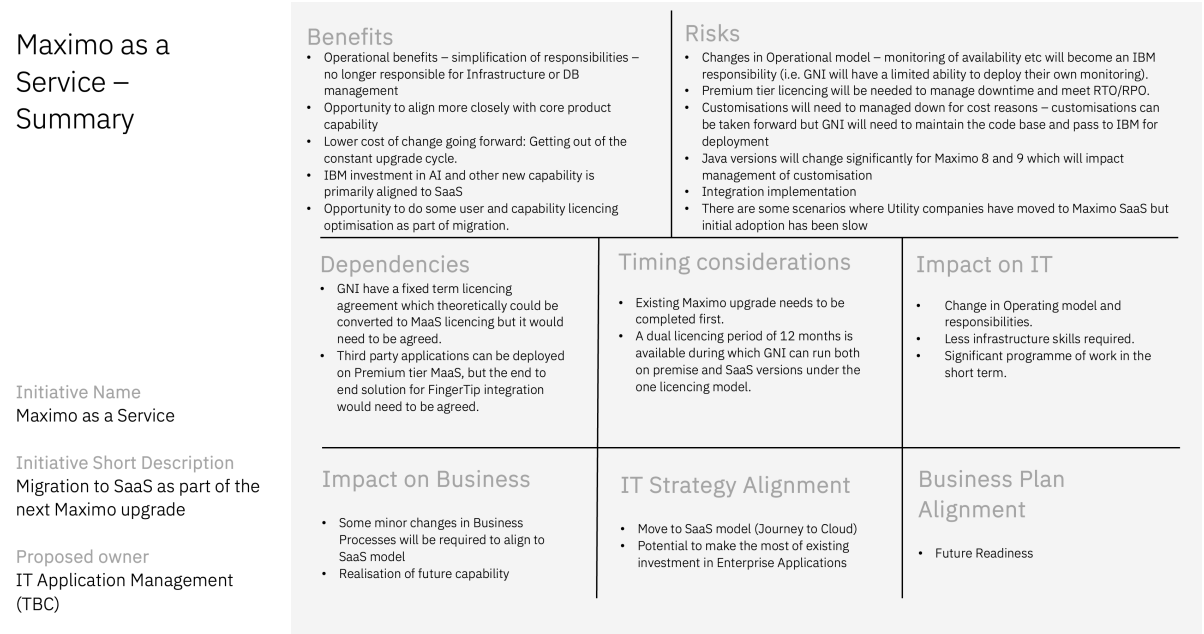
GNI Roadmap Plans

Area	Details
Syclo	• Syclo replacement is ongoing (FingerTips)
WAM	• Maximo Scheduler and Optimiser is selected as the replacement for Click. • MaaS is the major roadmap item which needs to be evaluated.
Business Roadmap	• Potential PCS initiatives on Land Management, Data quality (addresses etc), Mobile Survey capability improvements would have an impact on Maximo

Key Roadmap considerations (Early view)

Type	Detail
Product Roadmap	IBM are moving towards an aaS a service model – there are several key decisions and influencing factors in determining GNI's direction of travel in this area. These include: • Whether IBM managed MaaS is the appropriate model or whether GNI would like to pursue the OperShift Hybrid option (Openshift is a container platform which allows applications to run on any hosting environment i.e. cloud, physical servers etc). • Wider application footprint and capability footprint beyond the presently used core EAM – e.g. use of Maximo Optimizer and Scheduler and influence of this on licensing negotiations. Some business process to product capability mapping is an appropriate exercise in this context – it would be potentially advantageous given the current and projected level of investment for GNI to look at functional consolidation of business processes around Maximo (for example more focus on product capability around Preventative Maintenance, Inventory/Procurement, Asset Health Monitoring, Mobile Workforce). • Licensing model in general • Complexity of migration/upgrade in the light of deep integration of Maximo in the GNI estate and customization on Maximo • Cost Optimization opportunities in terms of both Infrastructure and maintenance. • Appetite for assessing other EAM solutions for GNI Note GNI are presently managing down the amount of customization in preparation for Maximo 8.
General	There may be an opportunity to address OS currency and, separately, to look to implement SSO for Maximo logins as part of the forthcoming upgrade.

Initiative Outline - After the completion of Deep-Dive sessions, an outline for each viable initiative were developed to progress to the "To-Be" Application Architecture and future roadmap. This deliverable included a summary of benefits, risks, dependencies, timing considerations, impact on IT, impact on Business, IT Strategy Alignment and Business Plan Alignment related details of the agreed initiative.



Maximo as a Service – Summary

Initiative Name
Maximo as a Service

Initiative Short Description
Migration to SaaS as part of the next Maximo upgrade

Proposed owner
IT Application Management (TBC)

Benefits
- Operational benefits – simplification of responsibilities – no longer responsible for Infrastructure or DB management
- Opportunity to align more closely with core product capability
- Lower cost of change going forward: Getting out of the constant upgrade cycle.
- IBM investment in AI and other new capability is primarily aligned to SaaS
- Opportunity to do some user and capability licencing optimisation as part of migration.

Risks
- Changes in Operational model – monitoring of availability etc will become an IBM responsibility (i.e. GNI will have a limited ability to deploy their own monitoring).
- Premium tier licencing will be needed to manage downtime and meet RTO/RPO.
- Customisations will need to managed down for cost reasons – customisations can be taken forward but GNI will need to maintain the code base and pass to IBM for deployment
- Java versions will change significantly for Maximo 8 and 9 which will impact management of customisation
- Integration implementation
- There are some scenarios where Utility companies have moved to Maximo SaaS but initial adoption has been slow

Dependencies
- GNI have a fixed term licencing agreement which theoretically could be converted to MaaS licencing but it would need to be agreed.
- Third party applications can be deployed on Premium tier MaaS, but the end to end solution for FingerTip integration would need to be agreed.

Timing considerations
- Existing Maximo upgrade needs to be completed first.
- A dual licencing period of 12 months is available during which GNI can run both on premise and SaaS versions under the one licencing model.

Impact on IT
- Change in Operating model and responsibilities.
- Less infrastructure skills required.
- Significant programme of work in the short term.

Impact on Business
- Some minor changes in Business Processes will be required to align to SaaS model
- Realisation of future capability

IT Strategy Alignment
- Move to SaaS model (Journey to Cloud)
- Potential to make the most of existing investment in Enterprise Applications

Business Plan Alignment
- Future Readiness

Figure 48 - Initiative Outline (as an Output of the Deep-Dive Sessions)

In the development of list of potential initiatives, several working sessions were held. Commenting on the discussion dynamics in those meetings, one of the Senior Managers stated that "*One thing I observed was that as we were providing data driven facts on our as-is assessment, and outlining how total cost builds up, and our requirement to reduce costs, we received good support and little push-back from the application managers and business SMEs when we started to discuss initiatives that will help us to reduce our costs*" (G4). Commenting on the development of opportunities and initiatives for consideration, one of the Senior Managers commented that "*None of these come out of the thin air, when we started, we did not have clear list to focus on, there were things that we picked up around the application landscape, but the development of the initiatives involved discussing with key stakeholders, talking about how things might be improved, and articulating that and playing that back and achieving credibility at a working level. In terms of the sounding board, before we went up again to CFO to say, alright, here are the opportunities because if he rings up somebody who is an expert in the area and they say - no, no, no, that won't work - then your whole strategy loses credibility"* (G5).

Target Architecture - The objective of the Deep-Dive working sessions held during this phase was to validate the gap, and also propose alternative approaches to bridge the validated gap in the light of the industry and technology trends. The figure on the right outlines the output of this exercise where a target architecture (Application Architecture – To-Be) defined as the same set of architectural view with new or modified components supported with related documented rationale.

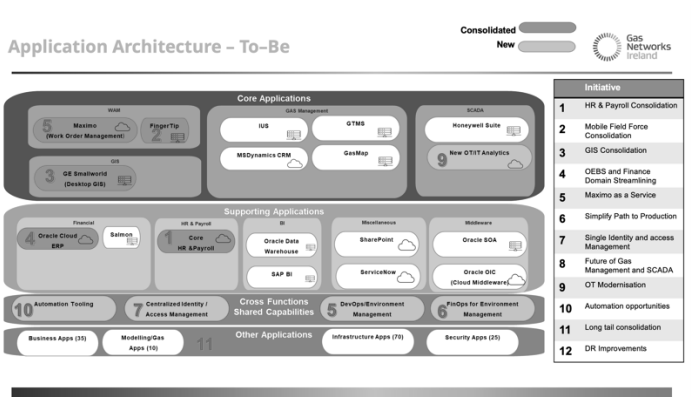


Figure 49 - Application Architecture – To-Be

Commenting on the challenges faced during the development of the roadmap, one of the senior managers noted that "*...key issue for us was to draw a diagram to represent the architecture that anybody in Business and IT can understand, what does it look like*

now and what does it look like in future, it was important to outline the new capability coming in, and what consolidated capability is" (G2).

At the end of the gap analysis and building the bridge exercise by means of identifying a set of new initiatives, five key strategic themes (as shown in the figure) have emerged representing key GNI application strategy objectives including cost reduction, modernisation/future readiness and risk reduction.



Figure 50 - Key Strategic Themes for the GNI Application Strategy

Within each of the themes, a set of initiatives were then clearly defined and further elaborated to finalise the final recommendations including next steps, and high level quantified (redacted due to commercial sensitivity) and qualified benefits.

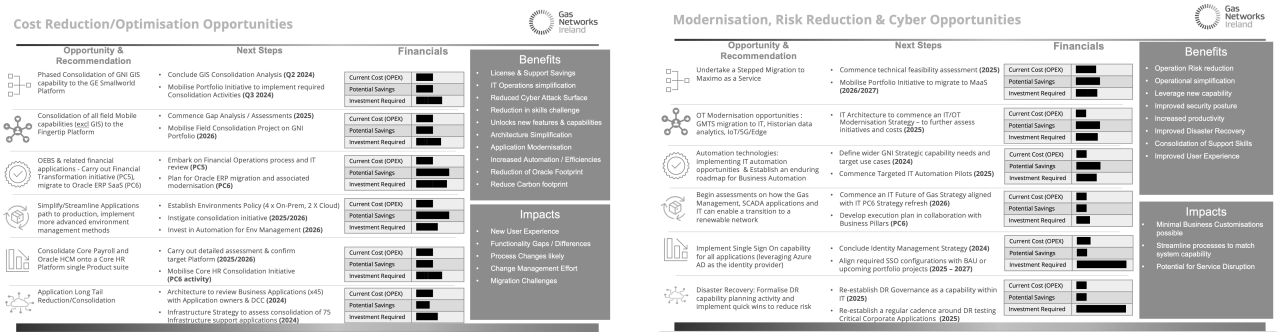


Figure 51 - Strategic Recommendations presented to the GNI Senior Management team

Commenting on the level of detail provided in the deliverables, one of the senior managers noted that "*...brevity is very important when dealing with internal stakeholders and executive managers, as they want something that they can use for communication, not something that they can use to do a line by line execution of the opportunity...*" (G3).

Towards the end of this phase, there were several sessions to refine the recommendations outlined in the GNI Application Strategy. Commenting on the challenges faced in the "To-Be" Architecture phase, one of the Executive Managers stated "*Crafting the application strategy is a challenging task, as the audience has different backgrounds and expectations, therefore a balanced view needed to be included in the definition of every recommended initiative to gain buy-in. Business domains would*

like to see what it means for them operationally, finance unit wants to see the figures that will be saved, technology domain wants to see how strategy will support the future technology landscape. This was a challenging task and required several iterations on the finalisation of the strategy deliverables in this phase" (G6). When asked about the review sessions and his views on the strategic roadmap, one of the Executive Managers noted that "*I am more interested in what we do understand about where we are today, and where we want to get to and the articulation of both of those and then how we figure out moving between those two points. As an executive, I need simplicity of checking in, like tell me about where we are now and describe me to make sure that I fully understand that the current position and make sure I fully understand where it is that we want to get to and why is that a good thing and creating the roadmap.*" (G9).

At the end of this phase, the GNI Senior Management team was presented with the recommendations and requested to provide feedback and further guidance before the GNI application strategy development project team progressed to the next and final phase of the project.

4.2.4.4 Business Case and Roadmap Phase

The objective of this phase was to refine the to-be architecture in the light of the derailed business case development exercise for each of the initiatives and also to identify the sequence and schedule for delivery in order to build a consolidated implementation plan.

Business Case – The GNI team arranged a series of deep-dive sessions with business and technology representatives for each of the initiatives and developed detailed business cases to ensure that the business value of IT investments can be validated. Business case templates were agreed with all required stakeholders and presented to the GNI IT Management team for review and approval. Business Case deliverables included a summary of the initiative, an outline of the recommended solution, key next steps, and the business justification and benefit statements. Commenting on the importance of having financial information associated with the recommendations, one of the Senior Managers commented "*Cost reduction to us was to make an investment by means of delivering a project that will result in reducing*

operational costs per annum, and even the payback is in long term, it was a good initiative to take it to further analysis" (G5).

The following figures outline the detailed information included in the business case exercise for one the initiatives to illustrate the content and context provided to secure required approvals from the GNI IT Management team.

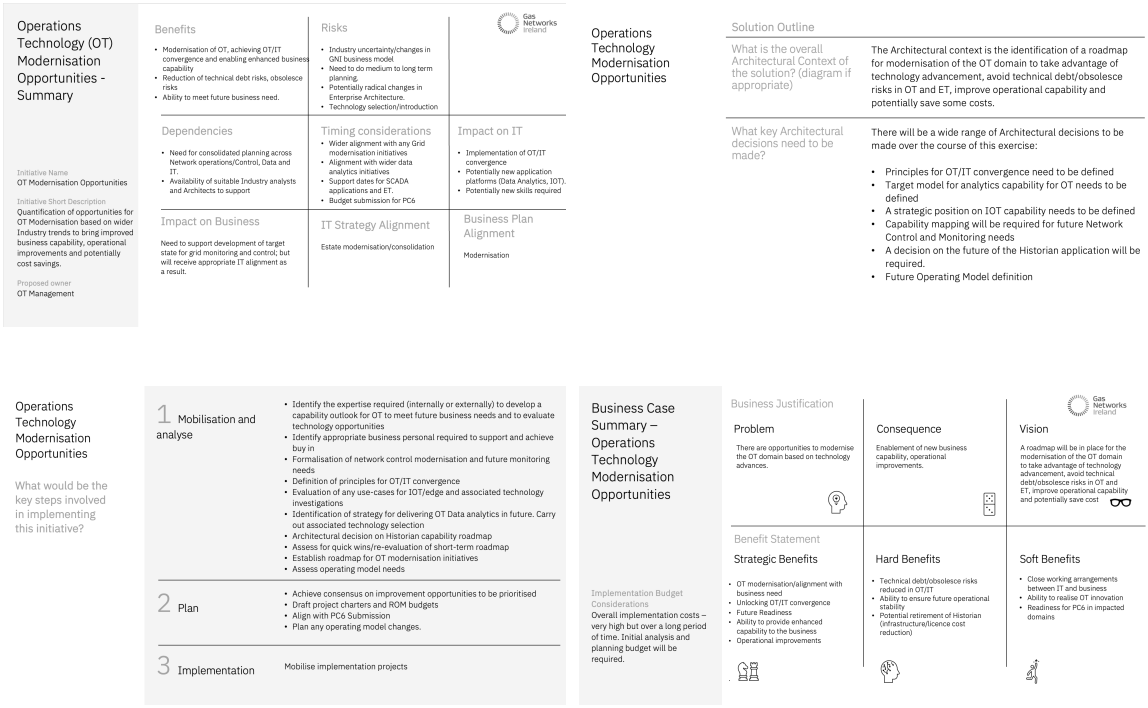


Figure 52 - Example of a Detailed Business Case

Roadmap – Aligned with the Target Architecture and initiatives for which the business cases were developed, an associated implementation roadmap was outlined. The roadmap was a combination of sequencing and prioritisation activity among with the key application owners taking account of the dependencies across the initiatives and overall benefits alignment. Commenting on the internal discussions held during the business case and roadmap discussions, one of the senior managers noted that "*...we need an example or a comparison for potential benefits to ensure that we don't get challenged in the management review on whether there is a business benefit as we need to know that another organisation has achieved similar benefits...the early version of the road map was probably a bit more aggressive to start with, but there was a bit of moving things around based on our own perceived ability to execute as we did not want to present*

something at an executive level, and get challenged on timelines. It had to be believable and executable for the size of our organisation" (G3).

A summary of the business case exercise and implementation roadmap, as shown in the figure below, was also developed by the GNI team to ensure better communication of the overall direction, schedule and expected benefits to the attendees of the GNI IT Management team.

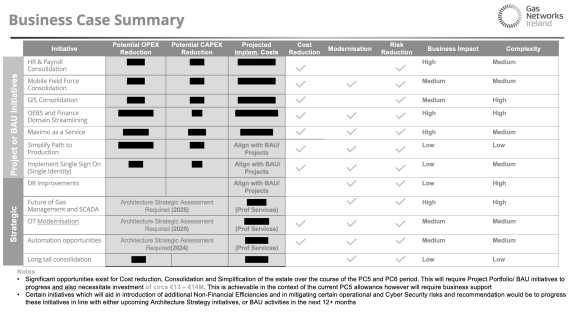


Figure 53 - Business Case Summary

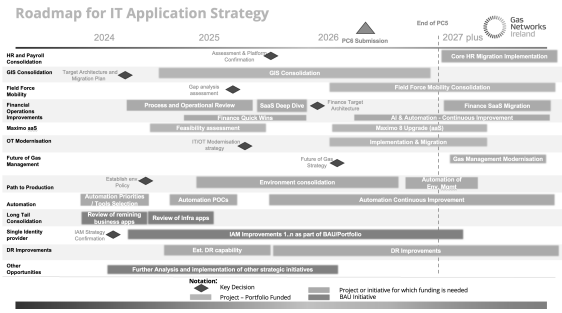


Figure 54 - Implementation Roadmap

The completed overall business case and roadmap were presented to the GNI Senior Management team (including IT and Business Executive Managers) to seek feedback and receive final sign-off of the GNI Application Strategy.

Executive Summary – Development of the Executive Summary deliverable started early in the project and continued to evolve over the course of the engagement. This deliverable was required to communicate the strategy to a wider audience within the GNI business and secure final endorsement of the IT Applications Strategy engagement. This deliverable has consumed a significant amount of time across the project team and included the following headings; IT Application Strategy Objectives, Summary of Key themes, "As-Is" Estate Analysis, Key Opportunities, and Roadmap and To Be Architecture. Commenting on the challenges experiences during the finalisation of the Executive Summary deliverable, one of the Senior Managers stated that "*Basically, for each we had something like 10-15 applications that we really did a deep dive into and I think we began with we had about 3 slides for each application. And then, we ended up summarising those three slides down to 1 slide*" (G5).

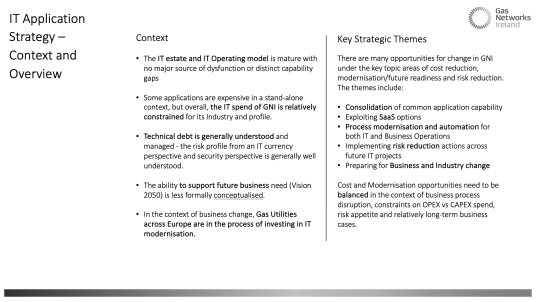


Figure 55 - Context and Overview - Executive Summary

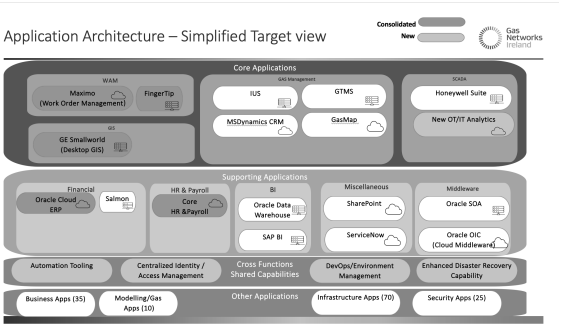


Figure 56 - Simplified Target View - Executive Summary

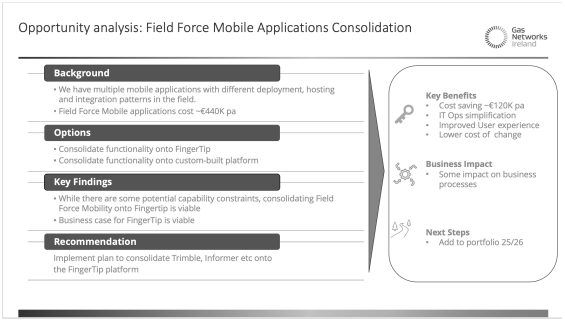


Figure 57 - Sample Recommendation - Executive Summary

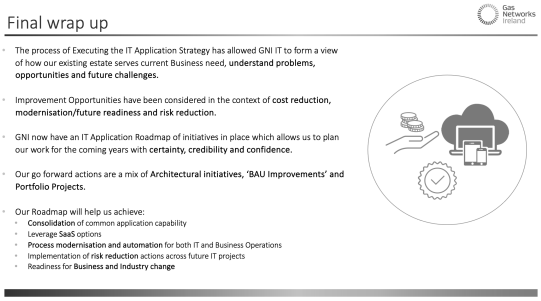


Figure 58 - Final Wrap-Up - Executive Summary

One of the Executive Managers who was involved in the engagement also commented that "*Commentary on the deliverables were very helpful, focusing mainly on the content and how it is presented and communicated, crafting sentences more in plain English, but also shaping the message to avoid misunderstandings or irrelevant questions. However, there was an awful lot of actual effort got into the formatting even of the changing colour schemes and tables etc. We needed to rework a number of slides… was very much the kind of personal view on how a slide should be presented. I think the colour and the picture, it was also the wording, and trying to refine the message - we're still giving the same overall message, but refining it maybe to be more digestible way*" (G6).

During one of the Executive Manager interviews, the Researcher probed the nature of the engagement that the interviewee experienced specifically for the final deliverable including executive summary document. The commentary received outlines the expectation gap "*… it is endemic as many technical oriented resources including architects do not consider the executive or the upward executive messaging. They are technically focused, and require constant help to pull the required message up and make it relevant, whether it is to the director level or to a board level. This is a kind of skill that*

comes with time and experience and seniority, but very, very few people consider this at the outset... we need to broaden the horizon and say what are we trying to, and what kind of a message we are trying to convey" (G7). Stitching the strategy together with a key focus on the messaging was a particularly challenging part of the engagement. As the strategy was required to be communicated to the executive levels for approval, he also added that "*Structured strategy document and executive summary presentation is the ultimate outcome of the strategy process, and in the latter part of the engagement, you start to see gaps. These gaps are more related to how the content is presented and explained to the other executive managers across the business, and resolution of these gaps create a little bit of friction in the core project team, and this is part of the healthy challenge that is provided by myself during the process....therefore it should be easy for them to understand why this is good for our business. Our CFO or CEO should be able to easily articulate what is presented to them*" (G7).

Sign-Off and Handover - The final objective of this phase is to officially secure the approval and sign-off on the GNI Applications Strategy based on the executive summary developed for senior and Executive Managers and hand-over the completed applications strategy and plan to the portfolio management teams. This is to ensure the management of execution for agreed initiatives according to the agreed and signed-off roadmap within the GNI IT function. The unit of handover and transition is achieved at the initiative level, as the overall responsibility to ensure that the execution of the agreed strategy remains with the GNI's IT function (with the head of IT Strategy and Performance and head of Enterprise Architecture reporting to the head of IT) and supported by individual project organisation and governance structures that will be established for the mobilisation of every each of the initiatives' execution. Although the strategy related engagement is completed, there remains further engagement required between business and technology related stakeholders in the execution phase. The involvement of the existing governance structures within GNI (including Project Portfolio and PMO) was mandated and was necessary for project team to engage with wider stakeholders who are ultimately responsible to execute and deliver on the approved application strategy.

4.2.5 Executive Engagement within the Selected Episode

4.2.5.1 Engagement Types and Schedule

Over the course of the GNI Application Strategy development project, a small set of engagement types were defined and maintained aligned with the stakeholder management plan developed at the mobilisation phase. As an overview of the engagement types and their timings, the table below summarises the Executive Management engagement during the GNI IT Application Strategy development project.

Table 16 - Executive Engagement - Timing, Scope and Depth Summary

Engagement Type	Audience	Timing	Scope	Depth
IT Management Meeting	Intra-group	Monthly Recurring	Wide	Low
Project Status Meeting	Intra-group	Weekly	Wide	Low
Scheduled Working Sessions	Inter-group	Regular	Narrow	High
Deep-Dive Sessions	Inter-group	Regular	Narrow	High
Informal Reach Outs	One to One	Ad hoc	Narrow	High

4.2.5.1.1 IT Management Meeting

The GNI IT organisation maintains its own governance structure, formed to ensure delivery of IT services to its business functions. The IT Management Meeting is a monthly gathering of all senior managers reporting to Head of IT (CIO). This includes head of IT Strategy and Performance, head of Enterprise Architecture, Executive Manager responsible for Security, Business Partnering, Operations Technology, Gas Applications and Service Management. IT Management team meets on a monthly basis (at the end of month) formally to provide a status update on key actions regarding operations and project delivery, closure of previous month activities, review of issues and risks.

The Head of IT Strategy and Performance is tasked with the development of the application strategy and is responsible for working collaboratively with other senior managers across IT and business. The GNI Application Strategy project is one of the

agenda items in this monthly meeting during the strategy development project. The Head of IT Strategy and Performance is responsible for providing updates on the strategy development progress. Once the GNI application strategy is approved, each initiative is tracked as part of the GNI Project Portfolio and their status is reviewed in monthly IT Management Meeting.

The GNI Application Strategy development project sought IT Management team feedback and sign-off at the completion of each phase of the project. This included the presentation of phase related deliverables including findings and recommendations throughout the project, seeking comments and feedback for official sign-off for the project.

4.2.5.1.2 Project Status Meeting

The Project Status Meeting was a weekly review of project activities, focusing on activities that were planned to be completed for the previous week and their status, and reviewing of activities planned for the upcoming week. The Project Status Meeting was formed in alignment with the existing project portfolio management processes of the GNI IT function. This meeting was chaired by the Head of IT Strategy and Performance, attendees included Head of Enterprise Architecture and senior managers. The Project Status Meeting was effective to observe any deviations from the timeline, and also to discuss any issues, risks and relevant resolution and resulting mitigation actions. This meeting also provided a review of stakeholder engagement and areas to focus on to improve involvement of stakeholders that have not fully engaged in the working sessions or deep-dive workshops.

Commenting on the importance of Project Status Meeting, one of the Senior Managers stated that "*...outside of the activities completed and planned and impact on timeline, we discussed the comments and feedback received from the stakeholders, and used this meeting to shape how we respond to challenging topics came up in the working sessions*" (G5).

4.2.5.1.3 Scheduled Working Sessions

Scheduled working sessions with the Executive Managers, Senior Managers and other key stakeholders are considered as a less formal setting where the stakeholders can get together to discuss predefined agenda reflecting the components of the application strategy. Commenting on the changing dynamics of discussions in working sessions with the stakeholders across the current state analysis and target architecture definition phases, one of the Senior Managers stated that "*it was very important to get input from the stakeholders attended the working sessions, this included subject matter experts, application and business owners for individual applications, and specifically around improvement opportunities and problems that they had and so on. This discussions took two forms, the first was during this current state analysis, we met all of the SMEs for key applications and talked them about what their problems were. Problems in this context, being operational problems, business usage problems, technical debt, modernisation issues, all that sort of thing, so that they were key inputs into that. I think everybody felt they were being assessed, their homework was being marked in terms of their day to day job. Second form was that the engagement with SMEs and wider IT managers became a process of evaluating what we were saying about roadmap opportunities and whether they did make sense to people on the ground, and we were evaluating the level of buy-in that we could achieve*" (G5).

As part of the scheduled working sessions, the GNI IT Application Strategy development team also secured slots with the existing IT governance structures. These included GNI Design Authority and GNI Architectural Board. The project team presented relevant phase deliverables and sought feedback and insights. The involvement of the existing governance structures was mandated and was helpful for project team to engage with wider stakeholders who are ultimately responsible to execute and deliver on the to-be-approved application strategy.

4.2.5.1.4 Deep-Dive Sessions

Deep-dive sessions are a type of focused workshop that are designed to thoroughly explore a specific topics identified based on the analysis conducted as part of the Current State Analysis (Discovery and "As-Is" Analysis) Phase. The objective of deep-

dive sessions was to secure time and focused attention with relevant stakeholders to review gathered information, discuss alternative options, identify further analysis if needed, and brainstorm all alternatives to establish a way forward for the focused topic.

During the “To-Be” Architecture and Roadmap Phase, deep-dive sessions were held to focus on each key application domains that are critical for the GNI business strategy. As an outcome of these sessions, a Deep-Dive Analysis deliverable was developed in relation to the selected initiatives. The document included a background narrative covering key features, processes supported by the application, the actual total cost of the relevant application, a view of its current business performance, perceived problems and risks and product roadmap insights gathered.

4.2.5.1.5 Informal Reach-Outs

Informal reach-outs are used when needed on a specific topic within the project when needed by the project team to reach out to the key IT or business stakeholders to receive additional insights. The Application Managers and Application Owners in IT played an agency role for the business representation, as they are engaged with business and know business, and work closely with them. Informal reach-outs were helpful for the IT team to discuss specific issues and ensure that they get business input during the engagement.

4.2.5.2 Nature of Engagement

The overall aim of any engagement within a business context is to build a strong, supportive relationship across management layers, fostering a positive work environment and promoting professional growth to enable organisational success.

The remainder of this section provides further insights on the nature of the engagement with Executive Managers.

4.2.5.2.1 Inputs Provided by Executive Managers

The nature of any engagement is complex. Researcher decided to breakdown this complexity by providing an input and output perspective, with the table below outlining the key domains of the input and contribution provided by Executive Managers during the GNI IT Strategy Development Project.

Table 17 - Inputs provided by Executive Managers - Case Study 2

CSO	QUOTE	OPEN CODE
CSO2	"This engagement was driven by the Price Control decisions approved by the Regulator. GNI needed to reduce costs, and some stakeholders were like, Oh, do we really have to go to this workshop and have this discussion? Do we really have to open up our or books and tell them what's happening, so to speak, like in the sense that there was some scepticism that this was a management driven exercise to, especially when the word "cost" comes up to identify, things that were costing too much or things that were being done badly at present etc. There was an element of defensiveness around that, or an element of why are we getting another management shake down?" (G2).	Government & Regulatory Priority Influence; Stakeholder Engagement & Buy-In; Collaboration; Decision Influence; Formal Approval; Value Contribution
CSO2	"My role was to ensure that there is outward engagement with the business, and open doors if there is any blockers with the business. Actual engagement with business was at the project execution level by ensuring the right business SME's and Application Owners are involved in the working sessions, and provided their insights and feedback" (G7).	Stakeholder Engagement & Buy-In; Resource Access & Allocation; Collaboration; Constructive Feedback; Insight Sharing

CSO	QUOTE	OPEN CODE
CSO2	"He was very keen to understand what we were doing next and also who we were talking to, in the sense of managing wider communications within the organisation, his contribution was critical to for us as he was helping in the navigation of the strategy to the upward level." (G3).	Organisational Politics Navigation; Strategic Direction & Alignment; Communication Facilitation
CSO2	"He was interested in looking at work in progress in terms of output reporting to form a view on whether it was appropriate whether he agreed with the messaging" (G2).	Sense Check; Storytelling & Tailored Messaging
CSO2	"We got somebody in to help making our deliverables look prettier (look and feel of the output material / slides), and that was a major engagement point in the second half the engagement" (G4).	Visual & Presentation Quality
CSO2	"...With the best will in the world, the team will have probably gone to too low to lower level of detail and may be missing the big picture in terms of ultimately what is this strategy about... That's one thing I do see is and it's understandable. People, you know, get invested in the strategy. They get into a level of detail. What I find my role is them bringing them back up over the detail and saying right at a high level what is this telling us" (G8).	Strategic Direction & Alignment; Scope Definition & Protection
CSO2	"Ultimately working with that team to get it over the line in terms of a completed strategy, the errors that I'd be particularly hard on will be about summarising the strategy up to an executive level" (G8).	Visual & Presentation Quality; Storytelling & Tailored Messaging
CSO2	"As an executive I need simplicity of checking in, like tell me about where we are now and describe me to make sure that I fully understand that the current position and make sure I fully understand where it is that we want to get to and why is that a good thing for creating the roadmap" (G9).	Strategic Direction & Alignment; Storytelling & Tailored Messaging; Strategic Direction
CSO2	"...Enthusiastic support. Because if I believe it, and have been involved in the creation of where we want to get to and my team have come on that journey with me and we know where we're going to go. This huge buy in and enthusiasm and energy and commitment and I think that's one of the things again that I like to think that I bring to these things is not only clarity and simplicity, but also a little bit of energy and passion. And let's get there and let's get there together as opposed to just standing back and saying, I'm telling you, I want you to get there. It's about collaboration..." (G9).	Change Sponsorship & Advocacy; Stakeholder Engagement & Buy-In; Collaboration; Executive Support; Simplification and Clarity
CSO2	"...If I get mentally stimulated. I'm usually happy because I'm there thinking about stuff and I'm going oh I need to work that out... If I'm able to explain this in a very simple way, I get a big kick out of that as well, which is why I kind of enjoy a lot of strategy type of projects." (G9).	Personal Learning from Executives; Storytelling & Tailored Messaging
CSO2	"...maybe he was trying to protect was the scope of the strategy that he didn't want this to become an operational strategy in terms of what change requests needed, what functionality needed..." (G4).	Scope Definition & Protection; Change Advocacy; Strategic Guidance; Breadth and Depth
CSO2	"...the way these engagements with our sponsor worked was that, like, it was important that he knew that there was detailed stuff or detailed analysis behind anything that we said or that I said to him, but he didn't necessarily want to talk about it. But he had to be ready to be tested on something by his peers, so to speak, as if, like, you know, he would occasionally deep dive into one particular point or another to understand it, but he wasn't interested in that from a communication or deliverable writing perspective" (G2).	Scope Definition & Protection; Collaboration; Communication Facilitation; Executive Support
CSO2	"He wanted one or two things looked at or emphasised on specifically, this was like hunch led belief that he had that they're spending too much money in Oracle and they could look at something cheaper somewhere etc. or requested to look at these things that haven't come up in stakeholder discussions, there's that level of guidance provided" (G3).	ROI & Business Case Focus; Scope Definition & Protection; Strategic Guidance

CSO	QUOTE	OPEN CODE
CSO2	“It is crucial to form the scope properly at the beginning of the strategy project, to advise the team and guide them through the strategy development process. IT Application Strategy needs to be positioned as a North Star to guide not only what we focus on but how IT, as a whole function supports the business, supports our business strategy. As an Executive Manager, my role focused to provide guidance and mentorship to the senior and middle manager levels. Guidance and Mentorship provide more detailed scope for the strategy having a bit of force up, this was foretold to say what are we actually looking to try and get out of the strategy at the end of the engagement” (G7).	Scope Definition & Protection; Guidance & Mentorship; Collaboration; Executive Support; Strategic Guidance
CSO2	“It's a little bit of a reflection of the styles of the executive managers, but they always try to test the water, whether the team had thought about all elements and they come up with the really the best among the alternative approaches that they surfaced” (G4).	Constructive Challenge; Testing, Asking Questions
CSO2	“I got more engaged when a more detailed level documentation was available to read, challenge and test the strategy and provide any recommendations to the draft materials” (G6).	Executive Approval & Sign-Off; Constructive Feedback; Critical Challenge, Testing
CSO2	“When deliverables were ready for my review, I spent time and provided constructive feedback and commented on the content with questions, as it was the appropriate point in time during the strategy process, as content was beginning to mature in the strategy life cycle” (G5).	Constructive Challenge; Executive Approval & Sign-Off; Constructive Feedback; Document Review
CSO2	“Structured strategy document and executive summary presentation is the ultimate outcome of the strategy process, and in the latter part of the engagement, you start to see gaps. These gaps are more related to how the content is presented and explained to the other executive managers across the business, and resolution of these gaps create a little bit of friction in the core project team, and this is part of the healthy challenge that is provided by myself during the process” (G7).	Visual & Presentation Quality; Healthy Challenge & Education; Collaboration; Critical Challenge; Document Review
CSO2	“I assure myself that the team have covered all the basis… I trust that the team have done the required work as part of the strategy development, but I'll test that in terms of exploring certain areas, reviewing it, challenging it where it needs be… and sometimes it will go deep in terms of if there's a particular concern I have or particular recommendation that I'm not clear on or I'm unsure of it” (G8).	Testing; Constructive Feedback; Document Review, Asking Questions
CSO2	“…that ability to simplify it and explain it in simple terms that people understand is one of the things that I think I bring to this… clear, concise and simple to understand if you can get that right, you know you right, you know that makes such a difference because you'll get people going and get it. I actually get what they're doing here, whereas if it's a complex, difficult to understand, you're far more likely to struggle” (G9).	Storytelling & Tailored Messaging; Simplification and Clarity
CSO2	“That the way you're telling me you're going to do it is going to work. And if I have that belief, yeah. They've taught this through. I like their methods. Their method is going to get them there. It feels instinctively, right. I signed it off because I think they're on the right path… And if I don't believe it'll work, I'll rarely sign it off. I say you need to convince me that I'm wrong, that there is, you know, you need to tell me Why this? How my doubts about your approach will work…So I don't know that's kind of the one that intellectually I need to. I need to believe that the efforts that's going to go into this is going to yield the results…” (G9).	Executive Approval & Sign-Off; Feasibility Testing; Formal Approval
CSO2	“There are also things you pick up informally on the ground on what the Head of IT’s actual priorities are…it was always about hardening the cost case or making sure that we were focusing on areas that were taking out costs, and we got a lot of queries and challenges around costs” (G2).	Cost Sensitivity & Budget Constraints; Critical Challenge; Strategic Prioritisation; Value Contribution

CSO	QUOTE	OPEN CODE
CSO2	“As an example, Head of IT Strategy and Performance comes in and says, he has been talking to the head of IT and he says, we need to think about this, that or the other” (G3).	Organisational Politics Navigation; Strategic Direction & Alignment
CSO2	“I had to have a firm grasp in terms of the strategy areas of focus with a forward-looking view. Being clear about what we as a strategy function are trying to achieve and to have that clear and straight and agreed upfront with Head of IT and then subsequently to guide my team through the strategy development process. IT Application strategy engagement was all about strategic planning at a macro level and it was needed to provide thought leadership, direction and defined priorities to say, here's what we will deliver, why, how and when we are going deliver” (G7).	Strategic Direction & Alignment; Scope Definition & Protection; Collaboration; Strategic Direction; Strategic Prioritisation
CSO2	“…Like effectively they provide in that area they ask me. Well, first of all, they provide me with challenge because they want to make sure that it feels like our approach to cybersecurity is robust and thought out across the organisation. They provide me with financial and resource support. So if I need support and I'm not getting it, the board will give it to me…” (G9).	Constructive Challenge; Resource Access & Allocation; Critical Challenge; Executive Support; Resource Access and Enablement
CSO2	“They provide a comprehensive review and bring their contributions and viewpoints by means of asking questions and probing to the content of the strategy infused with their business motivations and personality that reflects how they want the key messages communicated, how should the deliverables / executive summary to look and feel” (G5).	Visual & Presentation Quality; Personal Touch; Communication Facilitation; Document Review
CSO2	“…there was an awful lot of actual effort got into the formatting even of the changing colour schemes and tables etc. We needed to rework a number of slides… was very much the kind of personal view on how a slide should be presented. I think the colour and the picture, it was also the wording, and trying to refine the message - we're still giving the same overall message, but refining it maybe to be more digestible way” (G6).	Visual & Presentation Quality; Storytelling & Tailored Messaging; Communication Facilitation
CSO2	“The insights that he would have from operating at a more senior level in the organisation, which often again is important to feed into and solicit from him to feed into a strategy - director and an executive level. His inputs very much helped us to steer how we shape the strategy so it works for the business, you know, and that's the real thing” (G7).	Senior-Level Insight Sharing; Strategic Direction & Alignment; Insight Sharing
CSO2	“It is all about coaching, mentoring, challenging positions, challenging the thinking I suppose, making sure that there's a proper consideration to a lot of the different elements that impact the strategy. This is to provide healthy challenge, but also to educate them on the important aspects of developing a strategy” (G9).	Healthy Challenge & Education; Critical Challenge; Strategic Guidance
CSO2	“…it is endemic as many technical oriented resources including architects do not consider the executive or the upward executive messaging. They are technically focused, and require constant help to pull the required message up and make it relevant, whether it is to the director level or to a board level. This is a kind of skill that comes with time and experience and seniority, but very, very few people consider this at the outset, I was also guilty of this point earlier in my career” (G7).	Upward Messaging & Translation; Communication Facilitation; Resource Access and Enablement
CSO2	“There's an accountability aspect. I have now agreement to say well, that's the way we're moving now, I then assign project delivery responsibility to the team members who worked in the development of the strategy recommendations, this provides further development in their professional careers, and definitely in their next strategy definition project” (G8).	Accountability Enablement; Constructive Feedback; Formal Approval
CSO2	“There was a lot of effort to portray the operational spending correctly because it was really important to the organisation and the scope of the strategy engagement, specifically on the cost take out objective” (G3).	Cost Sensitivity & Budget Constraints; Collaboration; Strategic Guidance; Value Contribution

CSO	QUOTE	OPEN CODE
CSO2	"…Areas of benefits for the business are effectively what the strategy is about. It was to actually show what could be applied to areas of the business and as a consequence then deliver potential value etc… So that's where the discussion happens with the executive when we present it" (G6).	ROI & Business Case Focus; Value Contribution
CSO2	"This engagement was driven by the Price Control decisions approved by the Regulator. GNI needed to reduce costs, and some stakeholders were like, Oh, do we really have to go to this workshop and have this discussion?" (G2).	Government & Regulatory Priority Influence; Collaboration; Decision Influence; Formal Approval; Value Contribution
CSO2	"When deliverables were ready for my review, I spent time and provided constructive feedback and commented on the content with questions, as it was the appropriate point in time during the strategy process, as content was beginning to mature in the strategy life cycle" (G5).	Constructive Challenge; Executive Approval & Sign-Off; Constructive Feedback; Document Review
CSO2	"…outside of the activities completed and planned and impact on timeline, we discussed the comments and feedback received from the stakeholders, and used this meeting to shape how we respond to challenging topics came up in the working sessions" (G5).	Stakeholder Engagement & Buy-In; Conflict Mediation; Constructive Feedback
CSO2	Actual engagement with business was at the project execution level by ensuring the right business SME's and Application Owners are involved in the working sessions, and provided their insights and feedback" (G7).	Stakeholder Engagement & Buy-In; Collaboration; Constructive Feedback; Insight Sharing
CSO2	"..this is not like very formal engagement with the board, when it comes to my exec colleagues, if I want something. you know, if I want them to agree something, whether it be resourcing or whatever. I would socialise like hell. I would try to get to each of them at some point or I'd have my team get to each of them and say do a quick pre brief, you know just so the person is going in knowing and understanding what's there. So that would be a far more fluid and engaged type of environment" (G9).	Informal Lobbying & Relationship Building; Pre-Engagement Preparation; Collaboration

4.2.5.2.2 Outcomes Gained by Executive Managers

The table below outlines the key domains of outcomes gained by the Executive Managers via their engagement with the GNI IT Strategy Development Project.

Table 18 - Outcomes Gained by Executive Managers - Case Study 2

CSO	QUOTE	OPEN CODE
CSO2	"We didn't identify an opportunity that turned out to be a doozy, and he was forced to run with it because it looked good on paper. He also reviewed how we progressed the opportunities in terms of the details of what we were saying in the opportunities and provided input on those. This process gave him the help of an external voice in explaining back to other executives where the Opex spend was as it was validated with a detailed analysis coming from Finance team, as opposed to just something he'd made up himself. Secondly, he could start preparing for the opportunities. Thirdly, you know, it helped to make a case for change for some things that he needed" (G4).	Opportunity validation, External credibility, Change advocacy
CSO2	"As we navigated thru the strategy development process, the engagement with myself doesn't necessarily always have to be a form of rigid engagement. Every week, status updates etc. I would get that from the team they kept me briefed on how the strategy definition progressing, activities completed, planned, and timeline on key milestones set for the project" (G6).	Flexible engagement, Strategic updates
CSO2	"IT application strategy engagement also helped to socialise what's going to happen in IT within the IT organisation. You can imagine that there are different voices and different views, this process also giving him a kind of agreed objectives or acceptance of the strategy across the wider team. It helps everybody to know what we're trying to achieve, what our North star is. You know there's five or six managers reporting into the head of IT strategy and performance, they all have to sit down and nod their heads and say yes, we agree with this road map and that's in two ways, They agree what's going to happen in their area, but they also understand the wider initiatives across the IT function. It is helping to break down our silos a bit there" (G6).	Strategy socialization, Team alignment, Silo reduction
CSO2	"…the process of engaging all of the IT managers in the areas of as is analysis the current state analysis and in the opportunity development gave them some agency over, some control on managing their destiny, and we could claim some glory. This process also helps us to socialise our own needs upwards in the organisation" (G3).	Managerial agency, Upward communication
CSO2	"We've outlined a road map for the next two to three years in terms of the proposed areas, however we also told to them that technology is constantly evolving and developing. It's a direction of travel for now, and that may well change, and it almost certainly will change over the coming year or two years. So we will be back to them at a point possibly six months from now with an update… And if things have changed. In other words, some initiatives we've decided not to pursue will be calling that out. And if new ones have come on to the road map because they've bubbled up in terms of business demand" (G7).	Strategic adaptability, Expectation management
CSO2	"It is very important for somebody at that level to be able to say I have an application strategy, and I know what I'm doing. This increases the internal credibility of the IT function" (G4).	Internal credibility, Strategic ownership
CSO2	"He gets a plan of things to do to meet his business objectives, which are cost reduction, cybersecurity, modernization and a future readiness, so he can say right, we have these business objectives, we have thought about them, and this is how we're going to do it" (G5).	Objective alignment, Actionable planning
CSO2	"It gets into a position where IT function can claim to be driving their own destiny or driving their own road map and it protects them from being vulnerable to the winds of the business, in terms of them saying that IT should do this, or you should do that when all these things might be joined up…So it gives them coherence, credibility, the ability to communicate and plan in the long term their own demand, pipeline of their portfolio process based on a well-thought IT application strategy, and it lets them to get funding for their projects" (G3).	Strategic autonomy, Portfolio coherence, Funding justification
CSO2	"We try and achieve as a collective group, we want to make sure that the strategies we work on are pragmatic. They're deliverable, what they deliver for the business has value, so that they're not just paper based" (G7).	Pragmatic strategy, Business value
CSO2	"…I think they get assurance. So they say, great job. Keep it going. Let us know if you need any support and they give me a bit of challenge. You know, they will come back and sort of say it was ok, but I've seen something else here. How well protected are we, is there another task we should be doing?…" (G9).	Assurance, Constructive challenge
CSO2	"They did get briefings on what the future of gas management and new security technologies are or what the things in the business strategy mean for gas management and operations in the context of new trends in Operations Technology market. These briefing provided support for some of the key issues to be highlighted and key ideas validated to a more senior audience, which gave them additional credibility and leverage in terms of getting funding" (G5).	Trend awareness, Funding leverage
CSO2	"I get the benefit of the guys expertise in particular areas as well. We have some really good and strong architects with good experience even though as I said earlier like part of my role is to guide them through the strategy process, not a lot of them would have operated in strategy development, but they know their stuff and I learn from them" (G7).	Expertise utilization, Personal learning

4.3 Case Study Organisation 3 | Uisce Éireann (UÉ)

4.3.1 Company Overview

Incorporated in July 2013 as a company under the Water Services Act 2013, Irish Water, now known as Uisce Éireann following the commencement of the Water Services (Amendment) Act 2022, is responsible for bringing water and wastewater services of the 31 local authorities together under one national service provider.

Uisce Éireann (UÉ) is responsible for the operation of all public water and wastewater services including: Management of national water and wastewater assets, Maintenance of the water and wastewater system, Investment and planning, Managing capital projects, Customer care and billing. The company is also responsible for all of the capital investment decisions and implementation of the capital programme delivery across the country.

Uisce Éireann delivers 1.7 billion litres of quality drinking water and treats more than 1.3 billion litres of wastewater, while working hard to return it safely to the environment, for the residents and businesses in the country.

Uisce Éireann tackles with the challenge of delivering transformative water services that enable communities to thrive, and work towards a vision of sustainable Ireland where water is respected and protected, for the planet and all the lives it supports.

4.3.2 Business Strategy Overview

Uisce Éireann aims to transform Ireland’s water infrastructure by delivering timely, essential, value for money water services. Uisce Éireann is a standalone publicly-owned utility with full responsibility for the delivery of public water and wastewater services. This monumental shift sees the bringing together of existing staff and colleagues from 31 Local Authority Water Services, to build a truly national organisation with a collective ambition – to be a world-class water utility rising to the challenge of delivering transformative water services that enable communities to thrive. Given the wide range of stakeholder in the Irish water industry, there are two main strategic documents, outlined

below, are considered relevant for the selected IS planning and strategic alignment episode.

Water Services Strategic Plan 2050 presents the challenges Uisce Éireann face in delivering water services to 2050 and outline actions to respond to these challenges including an approach to long term planning aiming to address the new and emerging trends in an uncertain future. Water Services Strategic Plan (WSSP) 2050 has been developed in collaboration with the regulator and included public consultation process which presented a unique opportunity for the citizens and businesses of Ireland to engage with Uisce Éireann in the development of the 25-year strategy for the delivery of water services in Ireland.

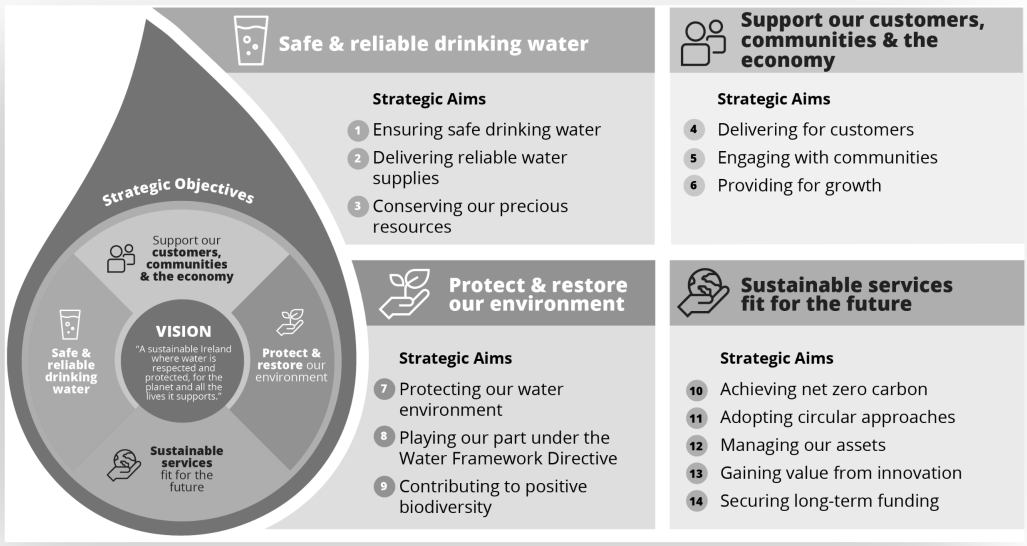


Figure 59 - Water Services Strategic Plan 2050

Accompanying the 4 strategic objectives, there are 14 strategic aims that address the most critical investment needs, respond to emerging policy requirements and capitalise on new opportunities to transform the clean and waste water infrastructure.

In addition to WSSP 2050, **Thrive - Uisce Éireann Strategy 2035** document was also analysed by the IT Strategy project team. The execution of the Thrive - Uisce Éireann Strategy 2035 was introduced as a company-wide transformation programme. Each of the Thrive initiatives were assigned to an Executive Sponsor and senior manager as owners to establish accountability and responsibility at the senior management team to ensure successful execution. Thrive initiatives are reflected in the performance management objectives for the staff involved and these also feed out into performance

management objectives throughout the business. Each initiative owner has completed a high-level description of their initiative, identifying people and financial requirements, phasing, risks and dependencies. Progress on each initiative is tracked via an Executive Steering Committee and quarterly progress assessments for each initiative are tracked by the Executive team.

Thrive - Uisce Éireann Strategy 2035 rise to the challenge of delivering transformative water services and support the delivery of WSSP 2050 strategic objectives that will enable communities to thrive.

4.3.3 IS Strategy Development and Strategic Alignment Episode Overview

The objective of this project was to develop a business-centric and customer focused UÉ ICT strategy to ensure the strategic objectives as outlined in the WSSP 2050 and Thrive 2035 can be enabled and supported by IT function and underlying people, process and technological capabilities. Technology is a critical enabler of Uisce Éireann's strategic objectives, but the ICT strategy must navigate a complex environment marked by escalating organisational complexity and an evolving threat landscape, which pose significant challenges to the organisation's security and resilience. One of the Executive Managers commented on the importance of kicking the strategy engagement off "*... I was given a clear mission by the CEO at the time to bring the business along the journey to ensure that this strategy and ambitions of IT were reflective of what the business actually wanted. So there was a strategy in place when I landed and that unfortunately it had to be made redundant on the basis that it didn't reflect or capture feedback from the internal organisation. So whilst IT had an ambition in terms of what they would like to have achieved or delivered, It wasn't reflective of what the business may have wanted*" (W11).

4.3.4 Selected Episode | UÉ ICT Strategy Development Project

The ICT strategy development project has the following phases as outlined in the figure below.

- Mobilisation
- Visioning
- Designing For Future
- Roadmap Planning



Figure 60 - Phases of Uisce Éireann IT Strategy Development Project

The summary list of key activities and associated deliverables, as outlined in the figure below, are produced across the phases of the project and they are further explained in the remainder of this section.

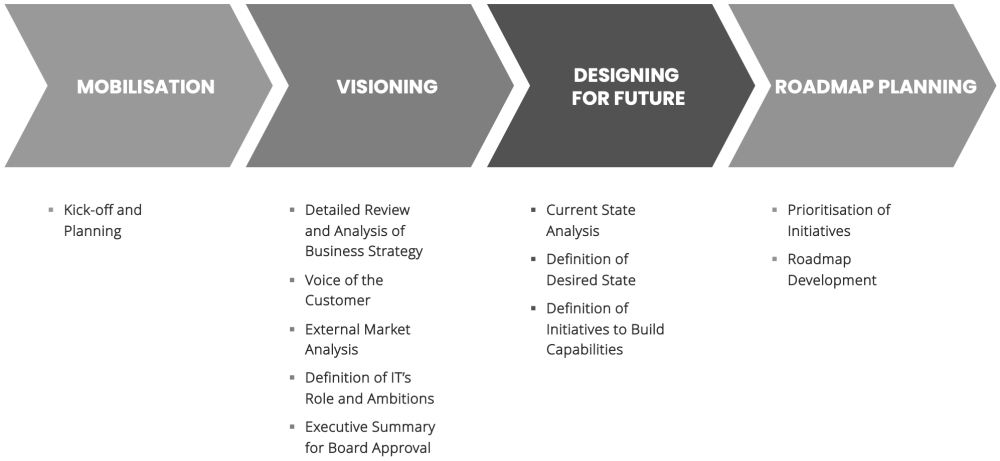


Figure 61 - Plan on a Page - Deliverables per each Phase for UÉ ICT Strategy Development Project

4.3.4.1 Mobilisation Phase

Mobilisation Phase is a pivotal step in the ICT Strategy development project. By defining the objectives, key stakeholders and communications for the planned next steps to the wider organisation, the project team ensured a smooth and clearly communicated start for the project that would enable transition from strategy formulation to implementation. Effective change and communications management solidified the foundation for successful design and execution for the UÉ ICT strategy development project.

The primary objective of this phase is to mobilise stakeholder engagement, ensuring that all planned activities are thoroughly documented, the analysis and design

approach is clearly understood, key stakeholders are identified, informed, and aligned, and the scope, timeline, and deliverables are explicitly defined and agreed upon.

Project Plan included set of key activities and outlined a timeline with key status progress update checkpoints with the executive management team. Plan on a Page was used to outline the approach taken to develop the UÉ ICT Strategy and UÉ IT team provided detailed explanation of this approach to the stakeholders in every session held in visioning phase to ensure that the approach is understood to manage the expectations.

Given the scale of the Thrive programme, a **Stakeholder Map** containing key business stakeholder names including contact details, and their availability information was developed. Selection of stakeholders that will contribute to the IT strategy development was critical for the success of the strategy as one of the objectives of the project was to develop a customer-centred and business driven IT strategy.

UE team have defined over thirty-five stakeholders across business and IT functions including key process owners and head of functions who were involved in managing operational delivery on a day-to-day basis across Customer Operations, People and Safety, Asset Management and Sustainability Supply Chain Transaction Services Facilities, Finance Infrastructure Delivery, Strategy, Resilience and Regulation and Legal business functions.

With the combination of project plan and stakeholder map, a project schedule was agreed for interviews and workshops required to progress to the next phase of the strategy development project.

4.3.4.2 Visioning Phase

The objective of this phase is to articulate a clear vision and set of goals for the ICT Strategy, and to identify the key sub-strategies required to deliver a customer-centric and business-aligned ICT strategy that supports the UÉ's overall business objectives and is endorsed by Executive Managers across both business and IT functions.

4.3.4.2.1 Detailed Review and Analysis of Business Strategy

UE IT team have taken two strategy documents as a baseline to build the ICT Strategy, including Water Services Strategic Plan 2050 and Thrive - Uisce Éireann Strategy 2035.

The outcome of detailed review and analysis of business strategy stage was a detailed mapping table outlining just over 50 key take aways (statement of business objectives and requirements) across multiple strategy domains, key objectives under each domain and associated initiatives and mapping to key strategic dimensions (Target Customer Outcomes) that Uisce Éireann had committed to deliver over the coming period.

Source	Startegic Objectives / Initiatives	Key Initiative	Broad Initiative	Key Strategic Dimensions / Target Customer Outcomes
WSSP	Meet customer expectations - Establish customer trust	Enhance customer service	Enhance customer and user experience	Improved Customer & User Experience
WSSP	Meet customer expectations - Provide excellent customer service	Enhance customer service	Enhance customer and user experience	Improved Customer & User Experience
WSSP	Meet customer expectations - Improve customer communications	Ensure proactive communication	Improve communication and collaboration	Improved Customer & User Experience
WSSP	Ensure a safe and reliable water supply - Maintain water quality	Enable IT-OT Integration	Enable real-time insights and integration	National Asset Management
WSSP	Ensure a safe and reliable water supply - Reduce leakage	Enable IT-OT Integration	Enable real-time insights and integration	National Asset Management
WSSP	Ensure a safe and reliable water supply - Take an asset management approach	Document asset life cycle information	Develop and maintain knowledge systems	National Asset Management
WSSP	Provide Effective Management of Wastewater - Develop standard operating procedures	Develop and maintain living process maps	Develop and maintain knowledge systems	Streamlined Operations
WSSP	Provide Effective Management of Wastewater - Develop a compliance strategy	Manage risk and compliance	Manage risk and incidents	Improved Safety Management
WSSP	Protect and Enhance the Environment - Ensure green procurement practices	Improve sustainability reporting	Improve sustainability reporting and compliance	Sustainability & Regulatory Excellence
WSSP	Protect and Enhance the Environment - Improve sustainability reporting	Improve sustainability reporting	Improve sustainability reporting and compliance	Sustainability & Regulatory Excellence
WSSP	Protect and Enhance the Environment - Improve energy efficiency	Improve sustainability reporting	Improve sustainability reporting and compliance	Sustainability & Regulatory Excellence
WSSP	Support Social and Economic Growth - Deliver services timely	Enhance customer service	Enhance customer and user experience	Improved Customer & User Experience
WSSP	Support Social and Economic Growth - Deliver cost effective services	Enhance customer service	Enhance customer and user experience	Improved Customer & User Experience
WSSP	Support Social and Economic Growth - Forecast demand	Improve agility	Improve governance and strategic planning	Co-ordinated Organisation Growth
WSSP	Invest in our future - Provide sustainable services	Improve sustainability reporting	Improve sustainability reporting and compliance	Sustainability & Regulatory Excellence
WSSP	Invest in our future - Improve knowledge of asset base	Document asset life cycle information	Develop and maintain knowledge systems	National Asset Management
WSSP	Invest in our future - Implement asset monitoring and reporting systems	Enable IT-OT Integration	Enable real-time insights and integration	National Asset Management
THRIVE	Transform Ireland's water infrastructure - Develop sustainable infrastructure	Improve sustainability reporting	Improve sustainability reporting and compliance	Sustainability & Regulatory Excellence
THRIVE	Transform Ireland's water infrastructure - Adhere to compliance and regulations	Manage risk and compliance	Manage risk and incidents	Improved Safety Management
THRIVE	Transform Ireland's water infrastructure - Provide innovative digital services	Enhance digital experience	Enhance customer and user experience	Innovation and Digital Culture
THRIVE	Harness a safe, diverse, inclusive culture - Improve the employee experience	Enhance digital experience	Enhance customer and user experience	Innovation and Digital Culture

Figure 62 - Sample Extract - Mapping Table of Business Strategy into Key Strategic Dimensions (Target Customer Outcomes)

The documentation of a consolidated list of key take aways from these two strategic documents were critical for the UÉ ICT Strategy development team to establish an understanding of the business and also prepare for the Voice of the Customer stage.

4.3.4.2.2 Voice of the Customer and Analysis

The Voice of the Customer (VoC) stage utilised an approach that is a systematic method for collecting and analysing feedback from key stakeholders to understand (in their own words) their current capabilities, challenges and pain points. This approach is crucial for developing business oriented and customer centric ICT strategy for the UÉ organisation, ensuring that IT services and solutions delivered by the IT function align with the expectations and requirements of the business functions and its end-users of the organisation. The Voice of the Customer (VoC) approach utilised by UÉ IT team included face-to-face and web-based sessions lasting 60-90 minutes with maximum 3-4 key stakeholders from each business function based on the key stakeholder list developed in the mobilisation phase.

During the Voice of the Customer (VoC) stage of the ICT Strategy development project, non-technical questions were posed to key stakeholders from various business units and directorates. The goal was to understand their business capabilities, challenges, and aspirations related to IT support and services, while maintaining a business-centric perspective. Some examples of the specific questions asked include:

- What are your business capabilities today?
- What are your biggest challenges?
- What are you trying to achieve in terms of capability and outcomes in five years?
- What are the current capabilities, challenges and pain-points of your business function?
- How do you see your business function in five years in terms of the service you are providing to your customers, internally or externally?

These questions helped to gather insights into the IT needs and aspirations of each business unit, ensuring that the resulting ICT strategy was both business-centric, customer-focussed and aligned with the organisational strategic objectives. One of the Senior Managers stated that "*...we were trying to steer them away from technology, being honest*" (W2) in order to reflect on their main approach in leading the VoC meetings. The outcome of the VoC sessions were collated in an Excel spreadsheet, and then mapped, summarised and categorised under several groups in order to define the key business

strategic dimensions (Target Customer Outcomes) that IT functions should strategically align into.

Business Function	Key Business Challenges / Requirements / Ambitions	How IT Can Enable	Key Initiative	Distilled theme	Broad Initiative	Key Strategic Dimensions / Target Customer Outcomes
Supply Chain	There is an opportunity to automate public procurement using AI - it's clunky at the moment	Use AI in public procurement process	Automate processes	Emerging Technology utilisation	Automate and streamline processes	Innovation and Digital Culture
Finance	Email based workflows in practice - No automation	Structured workflows needed	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Asset Ops	How to use IVR where we don't need human intervention at every stage - bring more tech and automation there	Tech in Customer support	Automate processes	Emerging Technology utilisation	Automate and streamline processes	Innovation and Digital Culture
Asset Ops	If there are calls coming in for some specific issue - that should lead to some action plan to be kicked off to make things more agile and easier	Emerging tech in customer service	Automate processes	Governance and Strategic Planning	Automate and streamline processes	Improved Customer & User Experience
Legal	With scaling up in operations, there are more properties and more employees translating to more legal work - want to be able to automate more and monitor better to keep on top of it	Improved process and automation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Transactional Services	There are too many manual checks and balances at every stage right from onboarding to salary increment, VHI deductions, etc. - need some automation	Improved process and automation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Transactional Services	52 bank reconciliations done in Excel manually every month - no auto-reconciliation in Oracle	Improved process and automation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Transactional Services	About 10K invoices are managed by accounts payable monthly - this is all done manually	Improved process and automation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Transactional Services	Looking for opportunities for automation across the directorate without losing control	Improved process and automation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Continuous Improvement	Manual data validation is needed for work orders - explore automation opportunities	Data reporting and visualisation	Automate processes	Operational Efficiency and Automation	Automate and streamline processes	Streamlined Operations
Continuous Improvement	There is no sight of inputs and no end to end visibility - e.g. inputs to Finance are not well recorded	Data reporting and visualisation	Capture data lineage	Operational Efficiency and Automation	Elevate Data Intelligence and Reporting	Real-time Data Insights
IDD	Need to get the data mart sorted as a single source of truth	Single source of truth	Create single source of truth	Information Accessibility and Insights	Develop and maintain knowledge systems	Real-time Data Insights
Supply Chain	Due to lack of systems integration, 360 degree view not available in a single place. E.g. supplier information may be distributed across systems	Single source of truth	Create single source of truth	Information Accessibility and Insights	Develop and maintain knowledge systems	Real-time Data Insights

Figure 63 - Sample Extract - Inventory and Mapping of Key Take-Aways from VoC Sessions into Key Strategic Dimensions (Target Customer Outcomes)

It is important to note that majority of the collected insights were related to operational observations and existing challenges (e.g. system stability, support service quality, operational performance of IS solutions etc.) faced by the business in the maintenance and support of the applications or limitations of the existing IT applications. UÉ IT team cross checked and validated the key outcome of the sessions against the business strategy documents reviewed and analysed in the previous stage to ensure that the all inputs that were captured were fully reviewed, evaluated and mapped against the key strategic dimensions (Target Customer Outcomes).

As an outcome of Detailed Review and Analysis of Business Strategy and Voice of the Customer stages in the project, a summary of Key Strategic Dimensions that Uisce Éireann ICT Strategy needs to align with is finally defined as shown below.

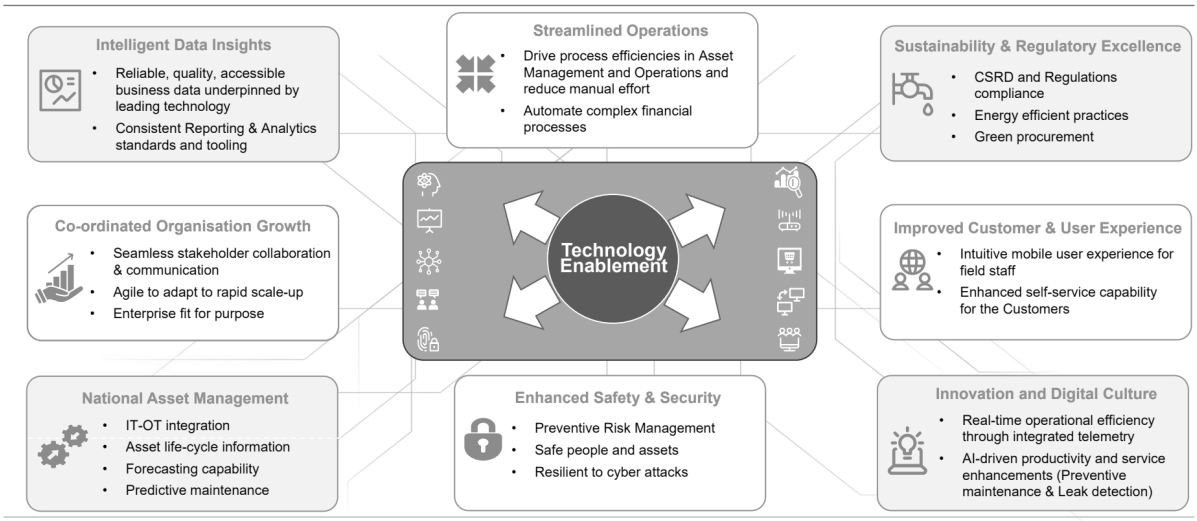


Figure 64 - Key Strategic Dimensions (Target Customer Outcomes)

Key strategic dimensions are considered as the key building blocks of the business strategy, objectives, and challenges that needs to be addressed by the UÉ ICT Strategy. To reflect on the challenging aspect of the mapping exercise, one of the Senior Managers commented that "*So I suppose before we came up with those 8 target business outcomes, we distilled a lot. There was over 300 takeaways and then we brought them down to somewhere around 240 and something 140 and then they came down to 100 and then it came down to 64 and we kept distilling them down and eventually we got to these eight that we thought that was going to cover*" (W2). Another Executive Manager also stated that "*The business strategy is king and then the IT strategy has to follow behind it. In the past we've tried to do IT strategies without any agreed business strategy and it's going to fail if you're trying to do an IT strategy in in isolation, you're very much have to take the business strategy and use that as your starting point to create the IT strategy*" (W6).

At this stage of the ICT Strategy project, the UÉ IT function recognized that failing to deliver a well-balanced and effective ICT strategy - aligned with the strategic goals of WSSP 2050, Thrive 2035, and insights from the Voice of the Customer - would significantly jeopardize Uisce Éireann's ability to function as a National Utility. Such a failure would also increase risks related to data protection, regulatory compliance, asset and infrastructure inefficiencies, integration difficulties, and safety and security vulnerabilities.

4.3.4.2.3 External Market Analysis

The External Market Analysis stage involved a thorough investigation and review of industry good practices to identify successful strategies and innovative approaches employed by other water utilities around the world. This review aimed to collect evidence and insights on other water utilities facing similar challenges and their approach to tackle with those challenges, experiences of peers to inform decision-making and avoid potential pitfalls.

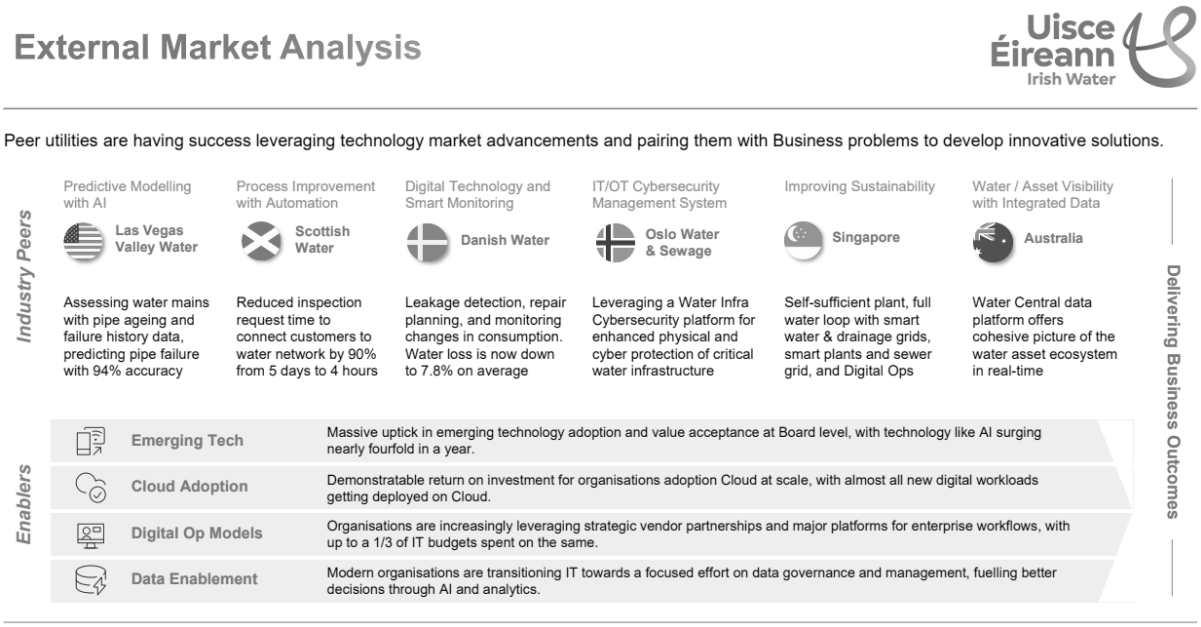


Figure 65 - Outcome of External Market Analysis

To reflect on the approach during the External Market Review stage, one of the Senior Managers commented that *"...here's what the business is telling us. Here's what WSSP and Thrive is telling us. Here's what the external market is doing. And here are the technologies that external market are using...are we aligned with all those three things? And I suppose what we did was checking to see if we're all aligned in terms of what the market is telling us*" (W2).

A critical aspect of the External Market Analysis was the identification of emerging trends in technology and industry practices. This involved monitoring technological advancements and assessing their potential impact on the organisation's IT requirements to stay abreast of evolving customer expectations and industry standards.

4.3.4.2.4 Definition of IT's Role and Ambitions

At this stage of the ICT Strategy development project, UÉ team have defined five key IT capability dimensions that they believed they should have to deliver on the eight key strategic dimensions (Target Customer Outcomes) that was identified as part of the previous stage and validated against the external market review and analysis.

The definition of IT capability dimensions was an outcome of IT focused review and mapping exercise that had happened in parallel to the definition of key strategic dimensions (Target Customer Outcomes). As outlined in the mapping table below, each input gathered from business functions are mapped to an IT enabler and initiative, and then categorised and mapped to a IT capability domain that UÉ IT team must have to deliver based on the business expectations.

Business Function	Key Business Challenges / Requirements / Ambitions	How IT Can Enable	What should IT have to deliver as Business expects	Key Initiative	Distilled theme	Broad Initiative	Key Strategic Dimensions / Target Customer Outcomes
Continuous Improvement	There are no living process maps in place - there were some created in Blueworks but may not have been updated - CI team uses Visio or Pen and Paper to draw process maps	Single source of truth	Highly Skilled Technology Function & Teams	Develop and maintain living process maps	Information Accessibility and Insights	Develop and maintain knowledge systems	Streamlined Operations
IDD	Need to get every activity or touchpoint in some system - have the systems connected - get the data in a data mart - produce reports as needed without having to ask people to produce data	Process standardisation	Simplified and Integrated IT and Process Ecosystem	Digital information capturing to systems	Process and Systems Optimisation	Elevate Data Intelligence and Reporting	Streamlined Operations
Asset Mgmt.	Not all assets are getting captured in systems, and manual data capture results in missing information. An ongoing project focuses on capturing data for the most critical assets. UET will be a driver for capturing more data in work management systems.	Missing data	Trusted Available Data	Digital information capturing to systems	Data Management and Reporting	Elevate Data Intelligence and Reporting	Real-time Data Insights
Asset Mgmt.	Meter reading data is inconsistent and relies on manual processes. Improving data quality would help with predictive maintenance and energy consumption monitoring.	Process improvement	Digitally Enabled and Innovative People, Culture & Capabilities	Digital information capturing to systems	Process and Systems Optimisation	Elevate Data Intelligence and Reporting	Streamlined Operations
Asset Mgmt.	Asset life cycle information unavailability a huge issue.	Lack of Asset life cycle information	Trusted Available Data	Digital information capturing to systems	Asset Management	Elevate Data Intelligence and Reporting	National Asset Management
Asset Mgmt.	Can we have a system for asset scan-in and scan-out - unable to capture assets - even location info would be good	Lack of Asset life cycle information	Digitally Enabled and Innovative People, Culture & Capabilities	Digital information capturing to systems	Asset Management	Elevate Data Intelligence and Reporting	National Asset Management
Asset Mgmt.	There is an unaccounted water consumption of 40% when comparing top-down and bottom-up figures. For ref, GNI figure is 1%	Unaccounted water consumption	Well Managed, Resilient and Secure IT and OT	Digital information capturing to systems	Data Management and Reporting	Elevate Data Intelligence and Reporting	National Asset Management
Customer	More than 185K non-domestic customers, of which 400 large customers. No customer tiering or categorisation on the basis of revenue generated, water consumption, etc. Need more intelligence about these customers, especially trade effluent customers	No customer classification and intelligence	Customer-Focused and Highly Skilled Technology Function & Teams	Digital information capturing to systems	Customer Experience	Elevate Data Intelligence and Reporting	Improved Customer & User Experience
Customer	1.6 million domestic customers but their information is outdated - no way to communicate with them	Lack of customer information	Simplified and Integrated IT and Process Ecosystem	Digital information capturing to systems	Data Management and Reporting	Elevate Data Intelligence and Reporting	Real-time Data Insights
Customer	There is an inconsistent way staff in contact centre and on field use technology - as a result the right info is not captured in systems, which further doesn't get communicated well to the customer	Staff digital upskilling	Simplified and Integrated IT and Process Ecosystem	Digital information capturing to systems	Cultural Change and Adaptability	Elevate Data Intelligence and Reporting	Innovation and Digital Culture
Finance	Insurance/ claims space - want more intelligence in claims space to take a risk based approach	Insights from data	Digitally Enabled and Innovative People, Culture & Capabilities	Digital information capturing to systems	Information Accessibility and Insights	Elevate Data Intelligence and Reporting	Real-time Data Insights
Finance	Want to provide more info to insurance companies on what we have in asset base - will get more competitive quotes	Asset database gaps	Trusted Available Data	Digital information capturing to systems	Asset Management	Elevate Data Intelligence and Reporting	National Asset Management

Figure 66 - Sample Extract - IT Capability Domain Definition and Mapping

The key IT capability dimensions are outlined below;

- Customer focused and highly skilled technology function and team
- A simplified and integrated IT and process ecosystem
- Trusted Available Data
- Digitally enabled and innovative people, culture and capabilities
- Well managed, resilient and secure IT and OT

To support the evaluation of current capability levels and set target capability levels for these five domains, a standard scale framework is used. The framework consists of a spectrum of pre-defined states outlining how an IT organisation can be

perceived by business functions within an organisation. At the lower end of the spectrum, IT is perceived as "innocent" or "naïve", indicating a reactive IT function that is not aligned with business needs and is viewed as providing commodity, non-value-added services to business. In contrast, the upper end of the spectrum represents "excellence", where the IT function is fully aligned with business needs, drives innovation, and delivers strategic value as a trusted partner.

With the five key capability domains and the standard scale framework in place, the UÉ team assessed the current capability levels of the IT organisation against each domain. This involved evaluating the IT function's current strengths and weaknesses, as well as identifying areas for improvement. Using the scale framework, UÉ IT team determined the current state of the IT function for each domain based on their insights on how business functions perceive IT in the organisation, ranging from "innocence" to "excellence". This assessment provided a baseline understanding of the IT function's current capabilities. Once this assessment is completed, UÉ IT team then debated on the target capability levels that they need to deliver on the eight key strategic dimensions that were identified as part of the business strategy review and Voice of the Customer stages.

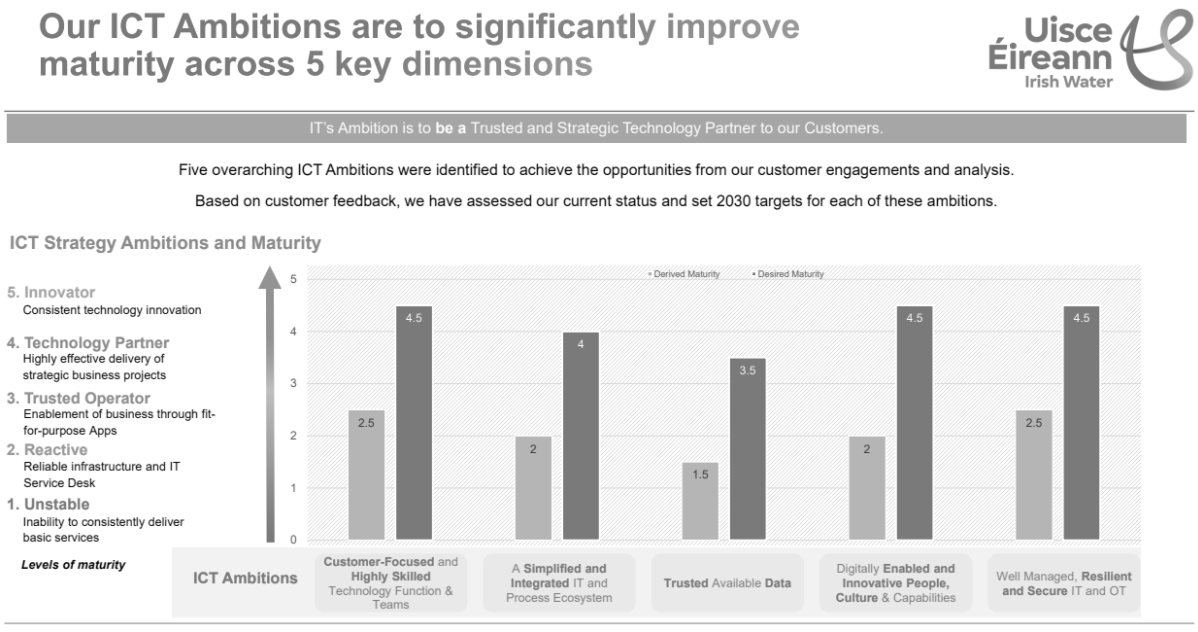


Figure 67 - Role of IT and Ambitions of IT Function

The challenges UÉ IT team faced during this stage was explained by one of the Senior Managers, "*There wasn't a lot of push back in terms of where we are at the*

moment, as it could be very subjective, right? So everybody is going to have a different opinion and all that type of stuff... In between that technology partner and innovator is where we want to get to, the discussion was more around where we want to get to rather than where we are at the moment" (W2).

Based on the assessment, the UÉ team set target capability levels for each domain, defining what "excellence" looks like for the UE IT organisation in the eyes of the business stakeholders based on the VoC stage discussions. Through collaborative workshop sessions, the UÉ IT team collectively defined and agreed upon these target levels, fostering a shared understanding of the IT function's goals and aspirations. On the target setting, UÉ IT team internal discussions were effective to create a mindset for progress, one of the Senior Managers commented "*...if you look at the graph, we had five ICT ambitions and we gave a rating of each of them where we kind of said where we were and we gave a rating of what we wanted to achieve in those five over the strategy execution period. So no matter what we do, we're trying to move ourselves up. That was our target in five years. So we might move, we might hit our target, but we will definitely get closer to our target at the end*" (W3). One of the Executive Managers commented that "*So I suppose our ambition to become a trusted technology partner won't change in five years, but we're trying to say this is where we want to get to in five years. You know, there's obviously certain things that we might not be able to achieve or we might be able to achieve, but this is our target. You know, you sometimes don't want to be setting targets that are too low. So you want to set targets that are high and you try to achieve them. And then if we don't achieve them, then those feed into our next strategy*" (W8).

4.3.4.2.5 Sign-off of Visioning Phase and Agreement of Scope for the Next Steps

The figure below outlines the UÉ ICT strategy on a page, it was developed to play-back what UÉ IT team have understood based on the engagement with business stakeholders and how they plan to deliver on the key strategic dimensions (Target Customer Outcomes) to the business functions within the organisation. Initial step to secure endorsements on the proposed ICT strategy, UÉ ICT Strategy development project team met with the business stakeholders who participated in the VoC sessions, and validated that their inputs are included in the ICT strategy. The playback sessions

with key stakeholders were the final step before proceeding to the board approval, one of the Senior Managers noted that "*It was kind of here's what we believe you told us. Here's what we've built. And here's our ambitions to try to help you achieve it. Are you in agreement in terms of what we're trying to achieve and where we want to go? If yes, then we would go to board for final approval*" (W3). Once these sessions are completed, UÉ team scheduled a slot in the upcoming Executive Board meeting.

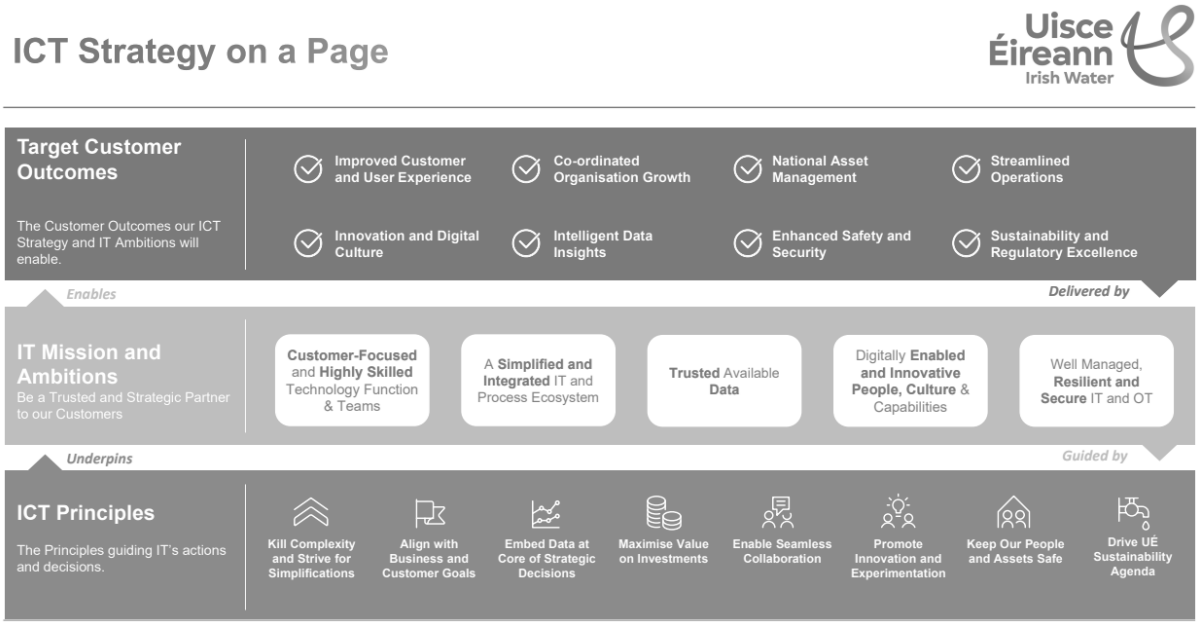


Figure 68 - Uisce Éireann ICT Strategy on a Page

The figure above illustrates the conceptual framework, including interlinks between the parts of the framework, that was developed at the end of the Visioning phase as part of the ICT Strategy Development Project. The key strategic dimensions (Target Customer Outcomes) are *delivered by* UE IT team with their agreed and committed IT Mission and Ambitions that will take outlined ICT principles as *guideline*. ICT principles also *underpin* IT Mission and Ambitions that *enables* the delivery of the key strategic dimensions (Target Customer Outcome).

This collective effort during the visioning phase across IT and business stakeholders ensured that the entire IT team was aligned on the desired perception of the IT function by business stakeholders, and that everyone in IT function had full understanding of the business strategy and are working towards a common vision and goals.

UÉ IT team have identified four main ICT sub-strategies that needs to be developed for delivering on the ICT strategy. A sub-strategy is a specific detailed strategy and plan that supports and aligns with the UÉ ICT strategy, but focusing on a set of particular components of the overall vision. The following sub-strategies and their scope, as outlined in the figure below, have been defined and presented to the Uisce Éireann Executive Team as part of the ICT Strategy Development Project.

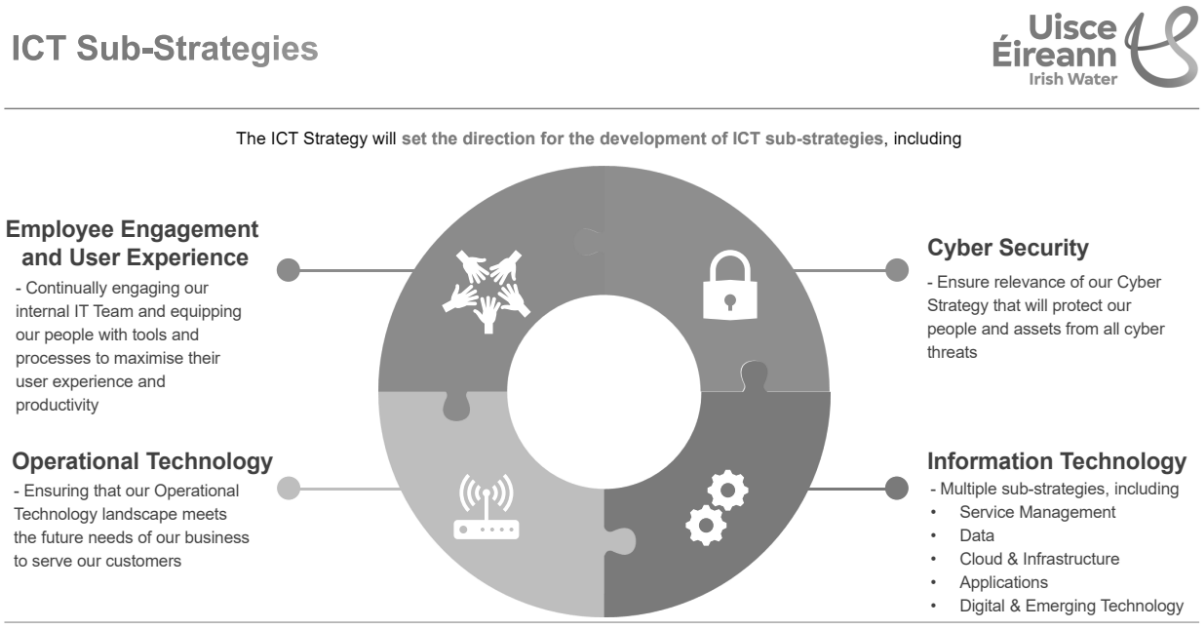


Figure 69 - Definition of ICT Sub-Strategies

UÉ ICT Strategy Development Project Team secured formal endorsement of the ICT Strategy Visioning phase and obtained approval from the UÉ Executive team to proceed to the next phase, where detailed sub-strategies will be developed to support the overall ICT Strategy direction. One of the board members commented at the board meeting that "*she was dreading the ICT strategy because she thought it was going to be very technical and they wouldn't be able to understand it. But they were very surprised and very happy. It was very customer and very business focused and that they could understand exactly what we were trying to achieve. So that was good feedback as that was what we were trying to achieve. We were trying to make an ICT strategy that wasn't technically focused and that was something that we could speak to business people*" (W3). In the same board meeting, one of the Executive Managers stated that "*...a lot of people would have previously would have said that the ICT strategy is very technical and*

very technical focused, whereas this time was very kind of more user and business focused and kind of putting the user and the business at the centre of it and trying to achieve what business was trying to achieve" (W4).

Commenting on the meaning of achieving board approval, one of the Senior Managers commented "*It was making sure that they were all on board and basically what we did, what we heard, what they said to us is basically what we put into our strategy and it's aligned to what they're thinking*" (W3). What this meant for UÉ IT team was that this was the starting point for the strategic alignment, IT and Business had established an agreement on what UÉ plans to do, and IT was given licence to engage with business and move forward. In addition, Business got commitment from IT that technology enablement will support their business operations. One of the Executive Managers stated *"I suppose the ICT strategy is a living document, but the strategy from an IT point of view wasn't IT heavy, it didn't have much IT terminology and we tried to use business familiar language, so we wouldn't have talked about cloud. We didn't talk about infrastructure, we didn't even mention specific applications... But, we're talking at an outcomes point of view. So we definitely kind of turned the ship a little bit on the strategy, And to look at that to make it more customer centric"* (W12).

4.3.4.3 Designing for Future - Development of Sub-Strategies

UÉ IT team has identified the following six main sub-strategies to support the delivery of the ICT Strategy;

- Application & Integration
- Cloud and Infrastructure
- Data and Information
- Business Architecture
- Digital and Emerging Technologies
- Operations Technology

Each of the sub-strategies were developed within the same approach that is outlined below. The subsections below will outline the activities and tasks completed during this phase and include some of the sample outputs across these four sub-strategies.

4.3.4.3.1 Current State Analysis

The objective of this stage was to outline the current state and challenges for the key capabilities that need to be improved for the key domain of the sub-strategy area. The following figure is the outcome of current state analysis completed for Application and Integration sub-strategy. Analyses were conducted in the form of workshops within IT team members where each member shared their perspectives and commented on the draft documents issued. Operational observations and existing challenges in IT operations that cover the management, maintenance and support of the existing IT landscape were clearly documented in this phase. The outcome included a detailed summary of key information on the current state and challenges.

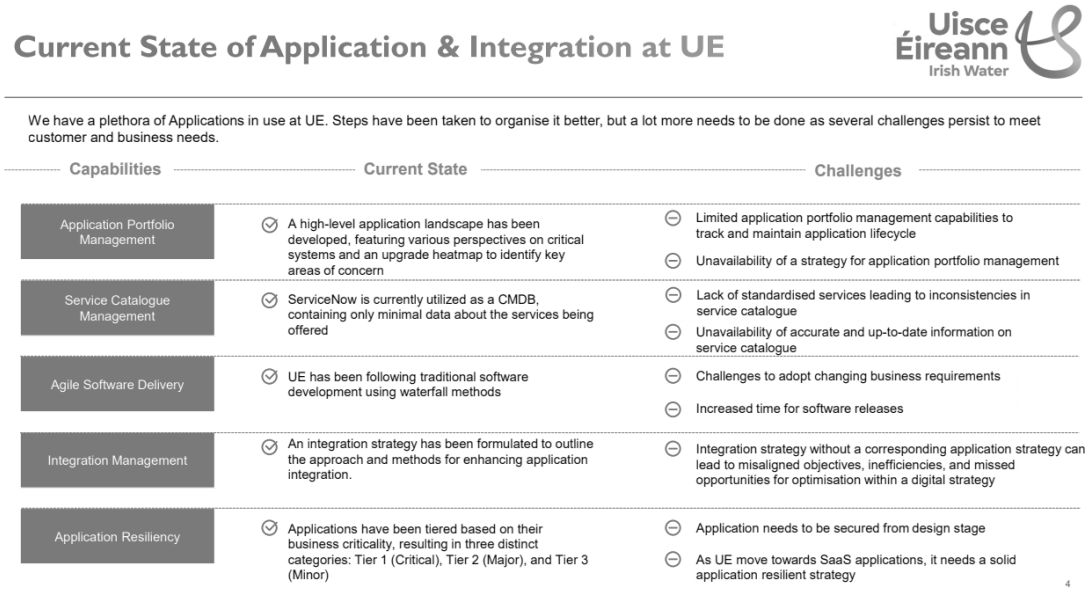


Figure 70 - Current State Analysis

The definition of capabilities was the starting point in the current state analysis. UÉ team had several discussions with IT Managers, Enterprise Architects and SMEs to identify the key capabilities (in each sub-strategy domain) that would support to achieve the IT ambitions. Once the capabilities were agreed, series of workshops were held to capture the current state of the capabilities and the current challenges faced were fully documented. One of the Senior Managers stated that "*We engaged with the IT stakeholders in terms of to fill gaps and get their views on the under various things and making sure that we're on the right track. At the end, we defined that these are the ones*

that we're going to go after and that's going to give us the biggest bang for our buck, shall we say" (W5).

4.3.4.3.1.1 External Market Analysis

The External Market Analysis exercise. (similar to the one previously executed in the visioning phase), as part of the Current State Analysis stage, involved a thorough investigation and review of industry good practices to identify successful strategies and innovative approaches employed by other utilities around the world in the key domain of the sub-strategy area. The following figure is the outcome of external market analysis completed for Data and Information sub-strategy.

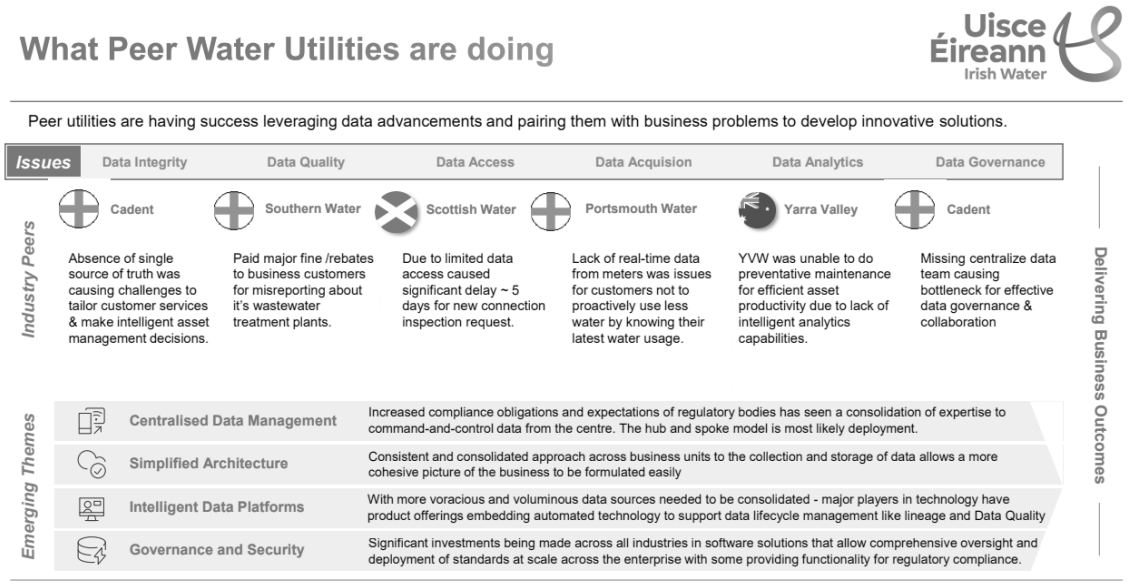


Figure 71 - External Market Analysis

This review aimed to collect evidence and insights on other utilities facing similar challenges and their approach to tackle with those challenges, experiences of peers to inform decision-making and avoid potential pitfalls. The insights gained from the external market analysis feed into the definition of the desired state.

4.3.4.3.2 Definition of Desired State

This stage focused on the definition of the desired stage where the current technical and operational challenges and existing IT processes and practices are

improved to a new level that can provide the necessary support to business functions to realise their target business outcomes.

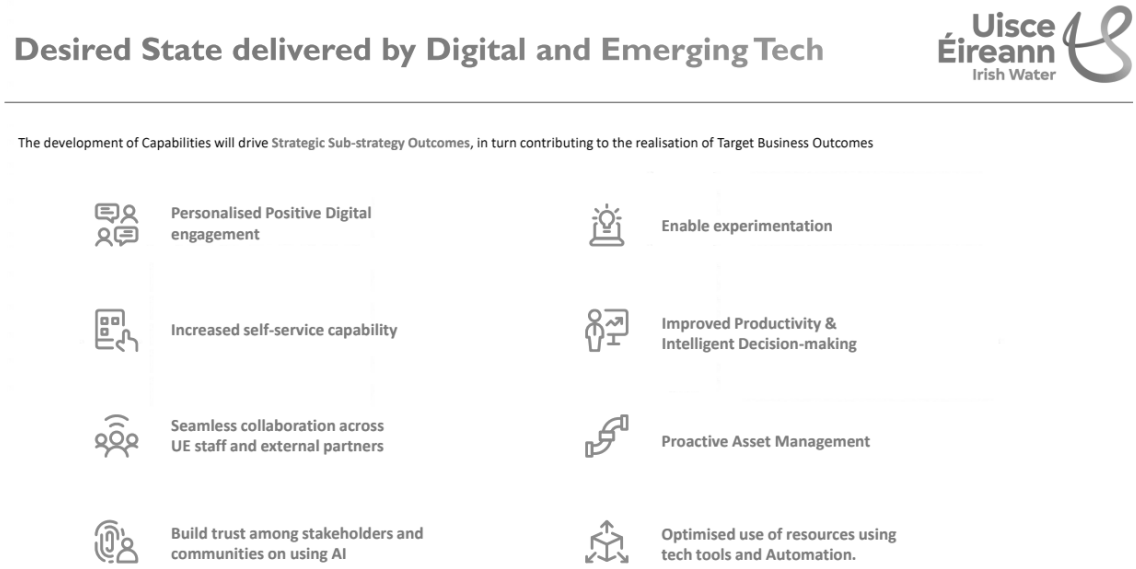


Figure 72 - Desired State Definition

The desired state definition were conducted in the form of workshops within the UÉ IT team members where each member shared their perspectives and commented on the draft documents issued. The outcome included a set of brief future state statements describing the overall capabilities that UÉ IT team should deliver to business. Mapping the core capabilities that are described with these statements into the ICT ambitions (as previously identified in the Visioning phase) was completed to ensure the alignment between the ICT strategy and the key domain sub-strategies.

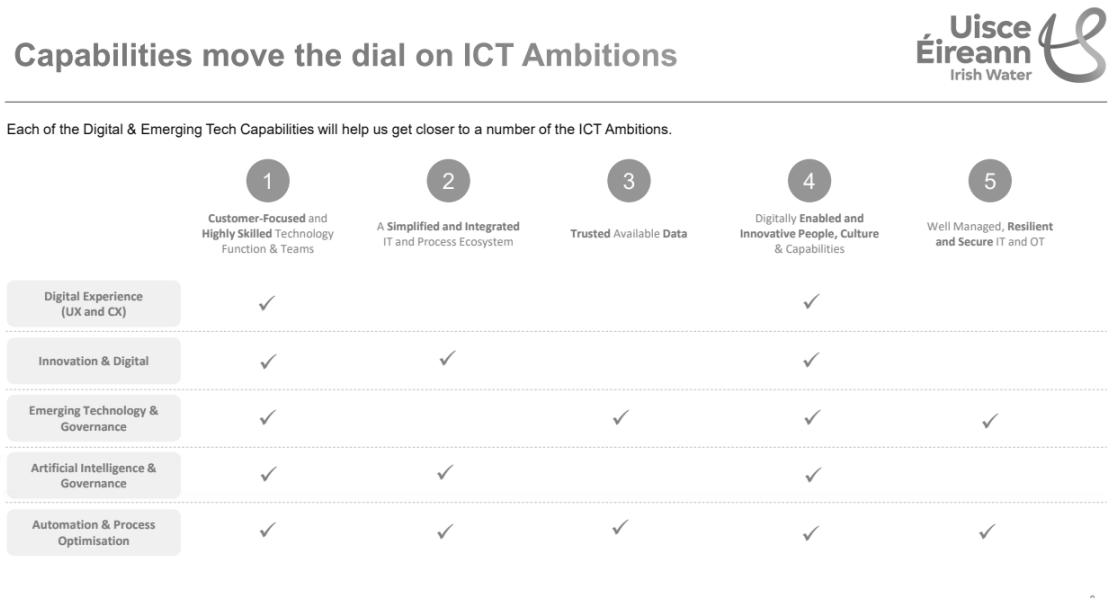


Figure 73 - Mapping of Sub-Strategy and ICT Capabilities

UÉ project team employed internal validation points that were based on the belief that the desired state will be achieved by improving the defined capabilities, and this requires set of initiatives to be defined and delivered to improve the current capabilities from their current state to the desired state.

4.3.4.3.3 Definition of Initiatives to Build Capabilities

Once the capabilities and their desired state definitions are completed, a series of workshops were conducted to discuss the initiatives that needs to be executed to move UÉ capabilities from the current state to the desired state. The following figure outlines the defined initiatives for the Cloud and Infrastructure sub-strategy.

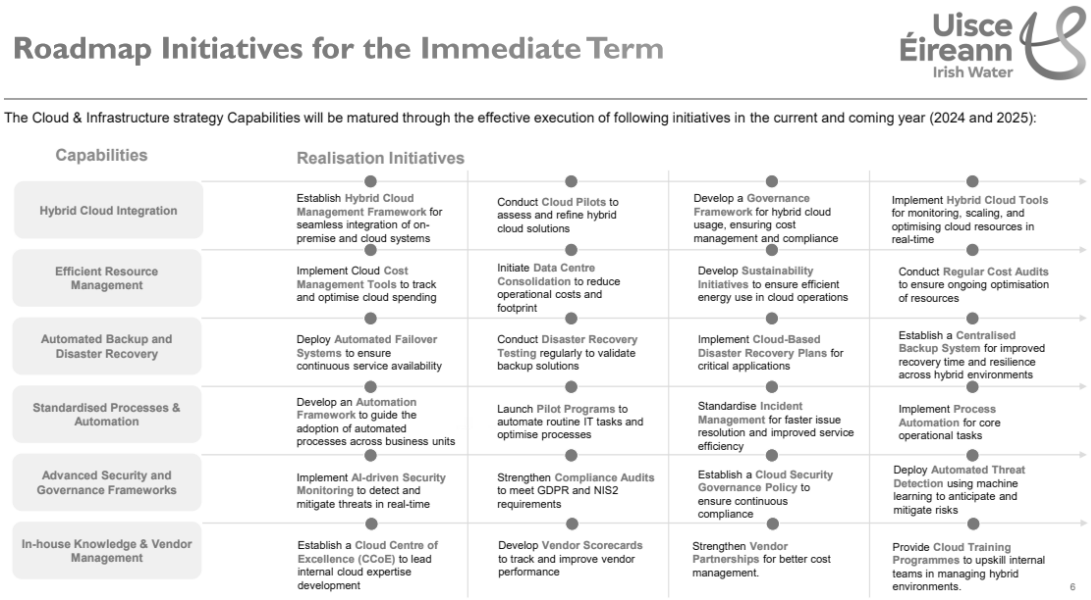
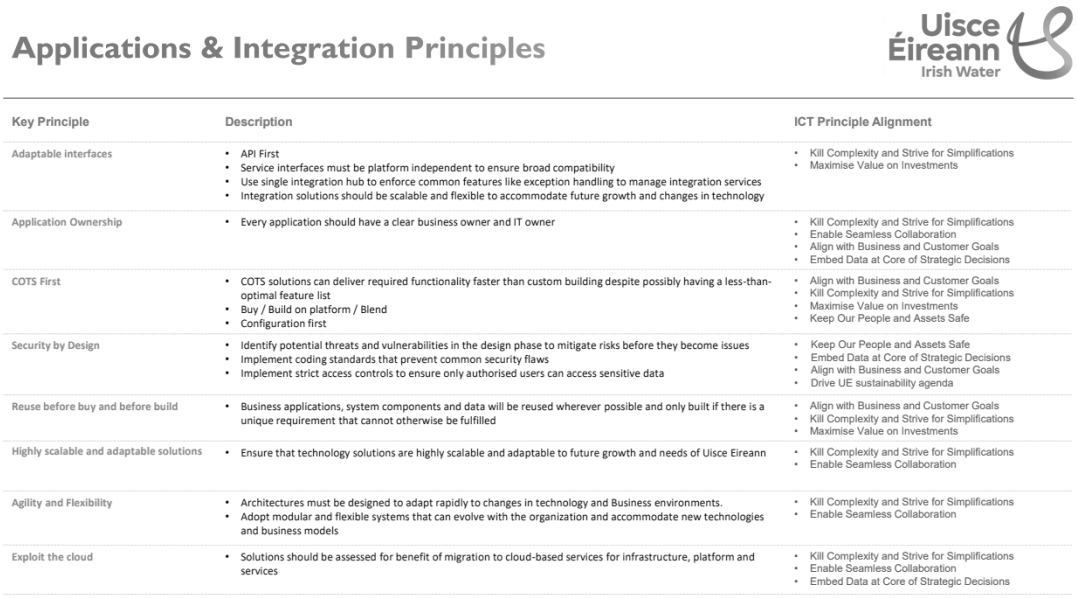


Figure 74 - Definition of Initiatives

UÉ Team held several workshops for discussion to sound check and iteratively validate the listed initiatives across capabilities and respective desired state definitions. One of the Senior Managers commented on the ways of working at this stage that "*... All the enterprise architects with SMEs sitting down, going through and coming up with suggestions, looking at what the overall ICT strategy was telling us and what the business was telling us in terms of what they're trying to achieve, and what projects we should deliver to achieve the desired state in order to deliver the sub-strategy to achieve those business outcomes, and this is how initiatives were defined and validated against the desired state definitions*" (W5). UE team also validated internally via discussions that the desired state definitions are aligned with the IT ambitions that supports the delivery of business strategy and the maturity targets that UE IT had set for themselves. One of the Executive Managers stated that team was focused on the potential changes that may happen during the course of the strategy execution period and noted that "*As you know, a strategy document is living and breathing. It'll always change, and we tweak here or there*" (W14).

In addition to the definition of initiatives, UÉ team also documented set of principles to govern the delivery of the initiatives as outlined in the below diagram.



Applications & Integration Principles

Uisce Éireann Irish Water

Key Principle	Description	ICT Principle Alignment
Adaptable interfaces	• API First • Service interfaces must be platform independent to ensure broad compatibility • Use single integration hub to enforce common features like exception handling to manage integration services • Integration solutions should be scalable and flexible to accommodate future growth and changes in technology	• Kill Complexity and Strive for Simplifications • Maximise Value on Investments
Application Ownership	• Every application should have a clear business owner and IT owner	• Kill Complexity and Strive for Simplifications • Enable Seamless Collaboration • Align with Business and Customer Goals • Embed Data at Core of Strategic Decisions
COTS First	• COTS solutions can deliver required functionality faster than custom building despite possibly having a less-than-optimal feature list • Buy / Build on platform / Blend • Configuration first	• Align with Business and Customer Goals • Kill Complexity and Strive for Simplifications • Maximise Value on Investments • Keep Our People and Assets Safe
Security by Design	• Identify potential threats and vulnerabilities in the design phase to mitigate risks before they become issues • Implement coding standards that prevent common security flaws • Implement strict access controls to ensure only authorised users can access sensitive data	• Keep Our People and Assets Safe • Embed Data at Core of Strategic Decisions • Align with Business and Customer Goals • Drive UE sustainability agenda
Reuse before buy and before build	• Business applications, system components and data will be reused wherever possible and only built if there is a unique requirement that cannot otherwise be fulfilled	• Align with Business and Customer Goals • Kill Complexity and Strive for Simplifications • Maximise Value on Investments
Highly scalable and adaptable solutions	• Ensure that technology solutions are highly scalable and adaptable to future growth and needs of Uisce Eireann	• Kill Complexity and Strive for Simplifications • Enable Seamless Collaboration
Agility and Flexibility	• Architectures must be designed to adapt rapidly to changes in technology and Business environments. • Adopt modular and flexible systems that can evolve with the organization and accommodate new technologies and business models	• Kill Complexity and Strive for Simplifications • Enable Seamless Collaboration
Exploit the cloud	• Solutions should be assessed for benefit of migration to cloud-based services for infrastructure, platform and services	• Kill Complexity and Strive for Simplifications • Enable Seamless Collaboration • Embed Data at Core of Strategic Decisions

Figure 75 - ICT Sub-Strategy - Principles

UÉ team considered principles as guiding factors, not a rule. The agreement within the team was that any decision needs to be made during the strategy execution, these principles would be considered in the decision-making process.

4.3.4.4 Roadmap Planning

This phase focused on the prioritisation of initiatives, development of the roadmap and final sign-off followed by handover to the IS delivery teams for strategy execution.

4.3.4.4.1 Prioritisation of Initiatives

The first stage in this phase focused on the prioritisation of the identified initiatives where UÉ IT team have used a value-effort matrix as shown in the below diagram. This exercise was completed in an iterative manner over several discussion sessions. A high level estimation exercise to outline the cost and effort needed to deliver the initiative and the expected value to be realised at the desired state were completed and documented.

Each identified initiative plotted on the 4 quadrants as shown in the diagram below based on discussions and agreed final position among the UÉ IT team members.

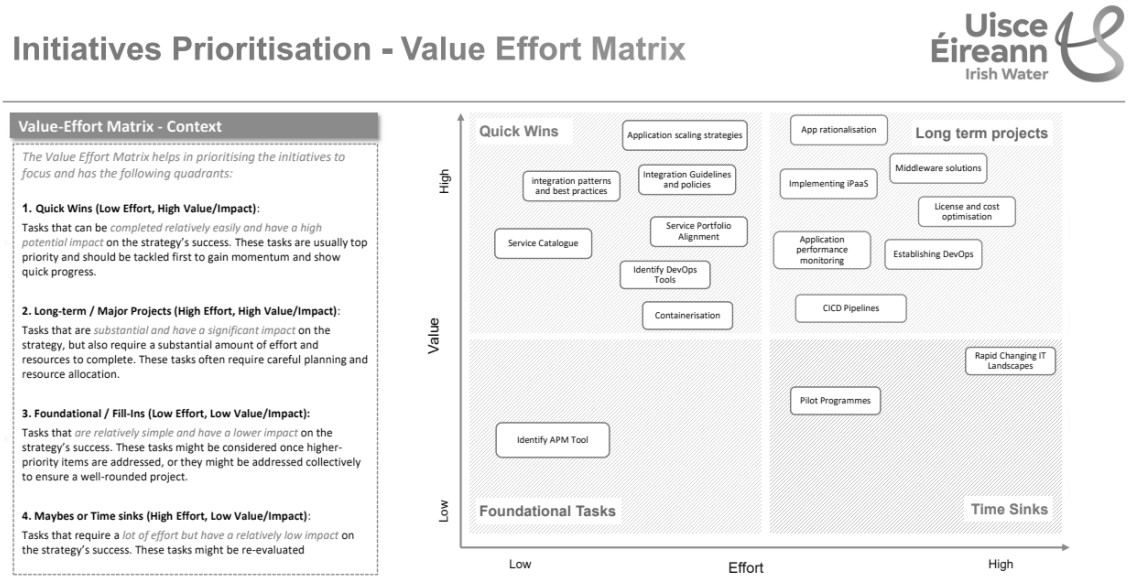


Figure 76 - Prioritisation of Initiatives

Once the prioritisation of initiatives were completed, the next stage of the Roadmap Planning phase focused on the development of the roadmap.

4.3.4.4.2 Roadmap Development

This stage focused on sequencing and scheduling of the delivery of initiatives based on the value, cost and effort assessments in the previous stage. Each initiative were plotted in a roadmap with short, medium and long term delivery plan. The roadmap figure shown below is for the Application and Integration sub-strategy and also outlines the step change from current state to desired future state across the core capabilities within the key domain.

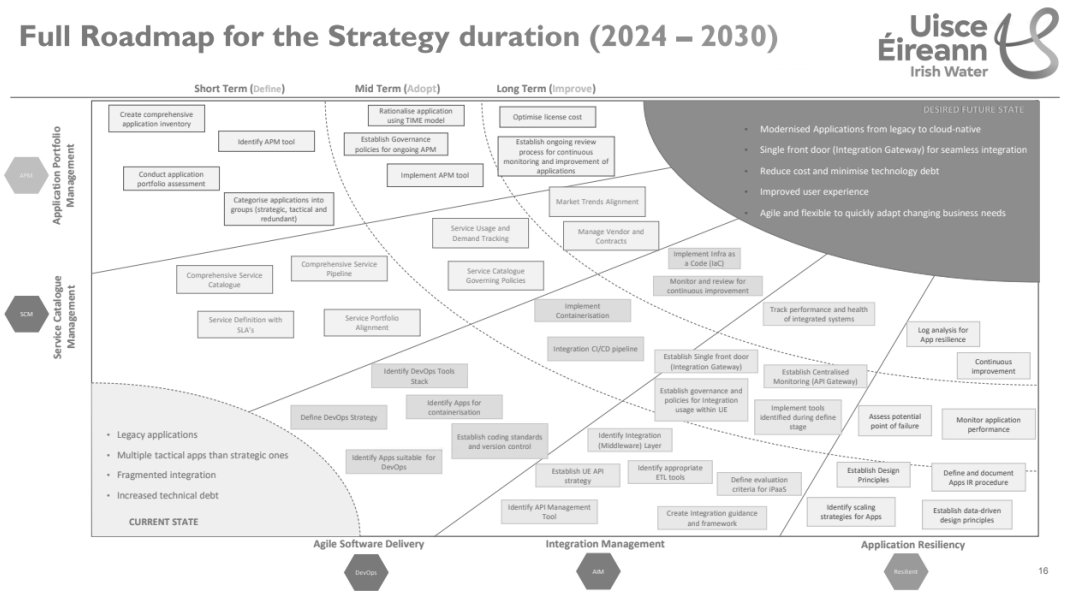


Figure 77 - Initiatives Delivery Roadmap

Although the roadmap developed is detailed and outline the initiatives that are planned at this stage, one of the Executive Managers mentioned about the process that they will need to follow in order to mobilise any of the initiatives as follows; "*We submitted IRC4 regulatory funding request document aligned with Thrive and WSSP, and for the revenue control period, there's a couple of €100 million worth of IT capital delivery request within that. This request is aligned with the ICT Strategy, as it is based on Thrive and WSSP. The ICT strategy that was signed off allowed sub-strategies to be created. So, those sub strategies where we will put that detail around the capability gaps and talk about specific technology areas that then rolls into our IRC4 funding which then ultimately rolls out as an annual portfolio. Our portfolio is prioritised based on a number of criteria including Safety, Regulatory, Mandatory, Value of Money, and Business Priority projects. We try to achieve suitable equitable and to be fair around what we're putting into the portfolio like in any one year, we try to do a project in every directorate so that they feel like they're getting something. However, that's not going to wash because Infrastructure delivery, asset management, they all have asks and wants as well. So there is that politicking side of it as well where you need to make sure that everyone has something and then we have our IT business partners. It's their role to go into these directorates then and say by the way, here's all the projects we're doing for you. Here's all the projects that are happening in the company that are not directly in your area*" (W15).

4.3.4.4.3 Sign-Off and Hand Over of the Sub-Strategies

This stage is the final stage of the ICT Strategy development project in UÉ. The review sessions in this stage, were in the form of scheduled working sessions (workshops) to discuss initiatives and ambitions in detail, and provide further clarity and answer questions from the UÉ IT Senior Management team. The figures below outline the background, context, ambitions and initiatives of the UÉ ICT sub-strategies. They were developed to summarise each sub-strategy for review and to secure sign-off from the UÉ Head of IT and IT Senior Management team.



Figure 78 - Background and Context

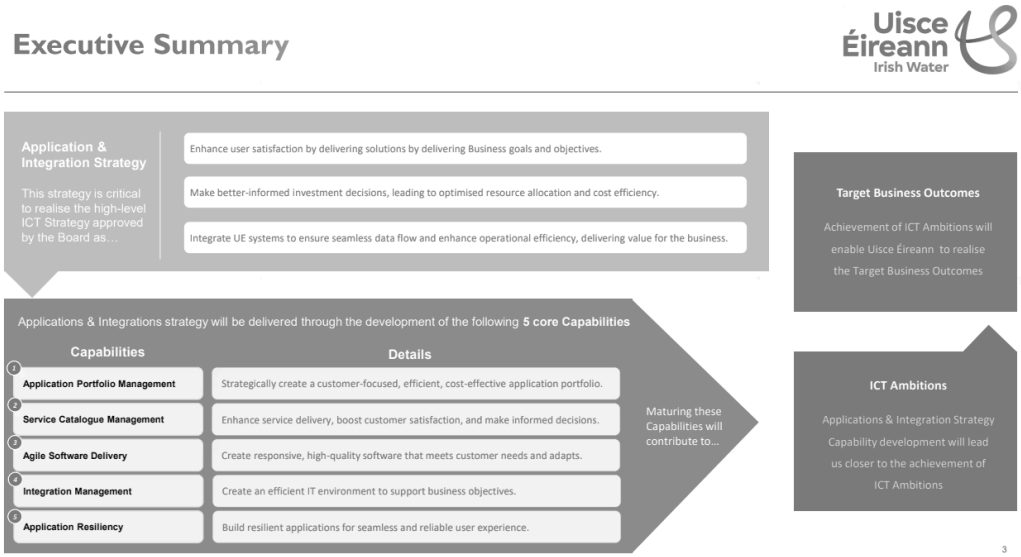


Figure 79 - Executive Summary

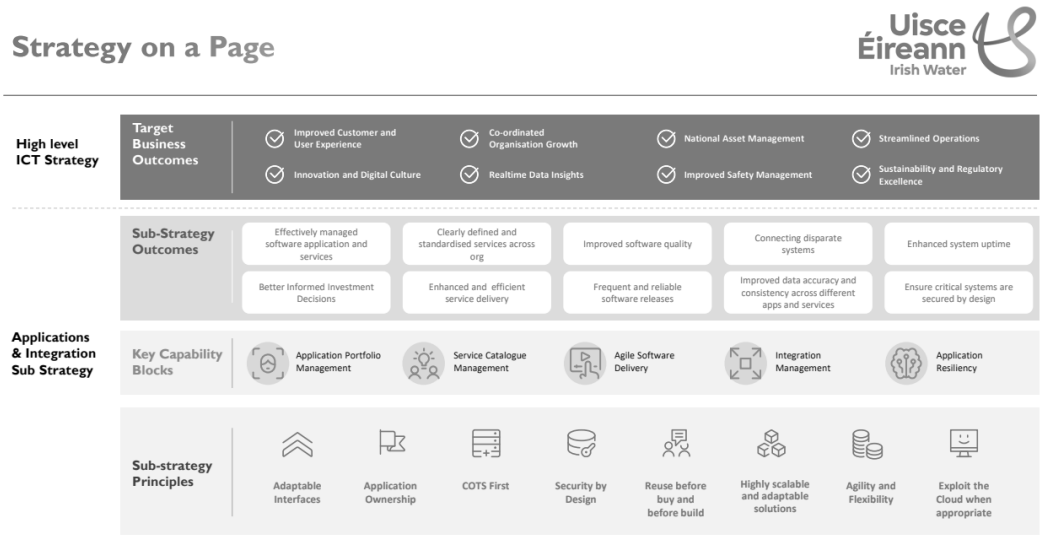


Figure 80 - Strategy on a Page

As the development of sub-strategies did not include business stakeholders, the control points to ensure alignment were established via key strategic dimensions (Target Customer Outcomes) that were previously identified in the Visioning phase of the UÉ ICT Strategy development. Regarding the lack of involvement from business stakeholders in the sub-strategy development, one of the Senior Managers commented that *"...business are not interested in our ICT sub-strategies and there no need for them to get involved in sub-strategies on infrastructure and cloud etc.. Again they only care about quality of service, stability of IT service and support they get for their operations*" (W4).

Once the review sessions were completed, UÉ IT team took away the feedback and comments captured in the sessions, and issued a final version of the sub-strategies for approval. The final strategy and associated initiatives were then handed over to the UÉ IT Portfolio management team for scheduling (including seeking approval for funding of each of the initiatives based on annual portfolio planning) and delivery.

4.3.5 Executive Engagement within the Selected Episode

4.3.5.1 Engagement Types and Schedule

Over the course of the UÉ ICT Strategy Development Project, a set of engagement types were defined and maintained aligned with the stakeholder management plan developed at the mobilisation phase. As an overview of the engagement types and their

timings, the table below summarises the Executive Management engagement during the UÉ ICT Strategy development project.

Table 19 - Executive Engagement - Timing, Scope and Depth Summary

Engagement Type	Audience	Timing	Scope	Depth
Executive Board Meeting	Inter-group	Only for Briefing and Approval	Wide	Low
IT Management Meeting	Inter-group	Weekly Recurring	Wide	Low
Project Status Meeting	Intra-group	Weekly Recurring	Wide	Low
Scheduled Working Sessions	Intra-group	Weekly Recurring	Narrow	High
Informal Reach Outs	One to One	Ad hoc	Narrow	High
Cascading Key Communications	Inter-group	Regular (Monthly, and when needed)	Wide	Low

4.3.5.1.1 Executive Board Meeting

When the head of IT was tasked with the development of the ICT Strategy, executive management team explicitly stated that the ICT Strategy to be business oriented and customer focused. Once the playback sessions are completed with the senior and Executive Managers across the business functions, UÉ ICT Strategy project secured a slot in the Executive Board Team meeting agenda to provide a brief of ICT Strategy and asked for approval to proceed to the Design for Future phase of the ICT Strategy project.

Executive Board meetings were helpful for Executive Managers to have a platform to have candid conversations within the formal agenda set out for the meeting. One of the key queries in the board meeting was around the engagement with business and how it was achieved. One of the Executive Managers stated that "*When we stepped into board meeting, we were probably a step ahead in that we had brought the business along the journey with us... So we had prepared an ambitious paper that played back to what the organisation had asked us to support them with for the next three to five year period*" (W11). While the board appreciated the business oriented nature of the ICT strategy,

there were some discussions on the deliverability of the strategy, as one of the Senior Managers mentioned the debrief he got on the board meeting from the Executive Manager who attended the board meeting "*...only challenge that was really coming up, was around finance and it was more to do with how we are going to pay for all this, you know... So saying that our ambitions were very, very ambitious in terms of where we want to get to and you know, does that align with the funding that we have, does that align with our next price control funding?... Those were probably the only main kind of very high level challenges to the to the strategy*" (W4).

4.3.5.1.2 IT Management Meeting

UÈ IT organisation has its own governance structure that was formed to ensure delivery of IT services to its business functions. IT Management Meeting is a weekly gathering of all senior managers reporting to Head of IT (CIO). This includes head of Operations, head of Enterprise Architecture, senior managers responsible for Security, Business Partnering, Operations Technology, Enterprise and Business applications and Service Management. IT Management team meets on a weekly basis formally to provide a status update on key actions regarding operations and project delivery, closure of previous period activities, review of issues and risks.

The head of Enterprise Architecture is tasked with the development of the ICT strategy, and responsible for working collaboratively with other senior and Executive Managers in IT and business. ICT Strategy project is one of the agenda items in this weekly meeting during the course of the strategy development project. The head of Enterprise Architecture is responsible to provide updates on the strategy development progress. Once the UÉ ICT strategy is approved, each initiative is tracked as part of the UÉ Project Portfolio and their status is reviewed in IT Management Meetings on a regular basis.

UÉ ICT Strategy development project sought IT Management team feedback and sign-off at the completion of each phase of the project, specifically for the Design for Future and Roadmap phase, as the visioning phase was the only phase in the ICT Strategy development project that required Executive Board approval. The rest of the

approvals in the development of sub-strategies were the responsibility of the UÉ Head of IT (CIO).

4.3.5.1.3 Project Status Meeting

Project Status Meeting is a weekly review of project activities, focusing on activities that were planned to be completed for the previous week and their status, and also review of activities that are planned for the upcoming week. Project Status Meeting is formed in alignment with the existing project portfolio management processes of the UÉ IT function. Project Status Meeting running on a weekly basis is an effective way to observe any deviations from the timeline, and also discuss any issues, risks and relevant resolution and mitigation actions. This meeting also provides a review of stakeholder engagement across IT and business, areas to focus on to improve involvement of stakeholders that have not fully engaged in the working sessions. In the early stage of the project, stakeholder engagement focus was on business participants, and the focus has shifted towards IT stakeholders after the initial Board approval, as sub-strategy development was more of technical compared to the visioning stage. During the Designing for Future phase, additional IT team members were included to the project team to ensure that the status of activities are reflected in the weekly plans and progression according to the plan is monitored closely.

4.3.5.1.4 Scheduled Working Sessions

Scheduled working sessions with the Executive Managers, Senior Managers and other key stakeholders are considered as a less formal setting where the stakeholders can get together to discuss predefined agenda reflecting the parts of the ICT strategy. These sessions were serving different objectives throughout the project. In the early stage of the project, the focus was on business stakeholders, and working sessions (e.g. Voice of the Customer) were focused on understanding the business strategy, discussions on the role of IT, expectations of business on IT. Scheduled working sessions with business were concluded with playback session at the end of the Visioning phase. With the board approval on visioning phase, and the commencement of Designing for Future stage, focus of working sessions has shifted to IT stakeholders, and the topics of

working sessions started to vary from applications, to cloud, security, digital, AI, infrastructure and overall service management to business which were the core domains of the sub-strategies that were developed during the project.

Commenting on the changing dynamics of discussions in working sessions with the stakeholders across the current state analysis and target architecture definition phases, one of the Senior Managers stated that "*...business are not interested in our ICT sub-strategies and there no need for them to get involved in sub-strategies on infrastructure and cloud etc.. Again they only care about quality of service, stability of IT service and support they get for their operations*" (W4).

As part of the scheduled working sessions, UÉ ICT Strategy development team also secured slots with the existing IT governance structures. These included UÉ Design Authority and Technical Architectural Board. The project team presented relevant analysis and phase deliverables and sought feedback and insights. The involvement of the existing governance structures were mandated and was helpful for project team to engage with wider stakeholders who are ultimately responsible to execute and deliver on the to-be-approved ICT strategy.

4.3.5.1.5 Informal Reach-Outs

Informal reach-outs are used when needed on a specific topic within the project when needed by the project team to reach out to the key IT or business stakeholders to get some additional insights. The UÉ IT team played an agency role for the business representation, as they are engaged with business, and they know business and work closely with them. Informal reach-outs were helpful for the UÉ IT team during the Designing for Future, sub-strategy development phase to discuss specific issues and ensure that they get business input during the engagement.

4.3.5.1.6 Cascading Key Communications

Cascading key communications through Executive Managers helps to ensure that the recipients pay required attention to the key message within the communication. The scope of these communications included information about completed projects, stories

about IT delivery supporting business and information about provided IT services. These communications are issued via the company intranet that works as a social media within the organisation.

4.3.5.2 Nature of Engagement

The overall aim of any engagement within a business context is to build a strong, supportive relationship across management layers, fostering a positive work environment and promoting professional growth to enable organisational success.

The remainder of this section provides further insights on the nature of the engagement with Executive Managers.

4.3.5.2.1 Inputs Provided by Executive Managers

The nature of any engagement is complex. Researcher decided to breakdown this complexity by providing an input and output perspective, with the table below outlining the key domains of the input and contribution provided by Executive Managers during the UÉ ICT Strategy Development Project.

Table 20 - Inputs provided by Executive Managers - Case Study 3

CSO	QUOTE	OPEN CODE
CSO3	"I suppose the statements on the strategy would have built up over time. They didn't develop those statements in isolation. They would have met with us several times and the teams as well to discuss the statements. So when it came to actually producing the sub-strategy or producing the strategy, you know it had developed in tandem with ourselves. So you know it wouldn't have come as a shock. So there wouldn't have been a huge amount of feedback or pushback on some of the statements that were made" (W9).	Iterative Strategy Development; Constructive Feedback
CSO3	"We had done a lot of work in terms of that pre-engagement... We engaged with the business as well as the board prior to even stepping into the lion's den to talk around the actual ambitions of the IT team to get a sense of first with the business exactly what it was... We also had a handful of sessions with the likes of members of the board who are quite I suppose a motivated around how they can enable IT to become a customer focused brand as opposed to a technically led part of the organisation" (W11).	Pre-Engagement Preparation; Stakeholder Engagement & Buy-In; Collaboration
CSO3	"The business felt that they were the ones that enabled us to land on what our strategy was reflective of. So we went into board. We immediately have business buy in the board were saying, OK, you can slam dunk the business, are supportive of what you're trying to achieve" (W11).	Stakeholder Engagement & Buy-In; Credibility Building; Executive Support
CSO3	"... So there is that politicking side of it as well where you need to make sure that everyone has something and then we have our IT business partners. It's their role to go into these directorates then and say by the way, here's all the projects we're doing for you. Here's all the projects that are happening in the company that are not directly in your area" (W15).	Organisational Politics Navigation; Stakeholder Engagement & Buy-In
CSO3	"Through the process of going into detail, I guess why we need strategies. It gives us the air cover to actually do project delivery, move the business forward. And so I would have learned the value of having a strategy and also the value of having people on board with us and I think that's really important. So I would have learned a lot around the stakeholder positioning of IT, the stakeholder listings like sometimes all these people need is to feel that they're being listened to and have an opportunity to input... You need to warm people up to things. So I think that that's definitely one of my learnings" (W12).	Stakeholder Engagement & Buy-In; Personal Learning from Executives; Insight Sharing; Value Contribution
CSO3	"So it's very much just how you manage the stakeholders. I think that's I think for me that's where I've really kind of like getting in there and kind of having those difficult conversations where needed" (W14).	Conflict Mediation; Stakeholder Engagement & Buy-In
CSO3	"...people probed and questioned and asked, but at the end of the day, It was built on alignment to the business. So certain people within IT might have their own opinion. But the whole point was this was a strategy built around the requirements and the goals of business" (W10).	Strategic Direction & Alignment; Strategic Direction
CSO3	"Another one would also be a pace or you know, phasing of a project or an objective. Are we moving at a fast enough pace to hit the objectives at a balanced scorecard level or corporate level you have... Then you might say, well, hang on a second, we need to do 10 this year because that's what the board are expecting. So the pace and the phasing of our objectives was something we challenged. If it wasn't correct or aligned." (W13).	Pace & Phasing of Delivery; Critical Challenge
CSO3	"It was about identifying gaps I suppose, in terms of us operating under a clear strategy that we could point to and I was kind of keen I suppose that we had kind of cover of a strategy. And so when it comes to even looking for CapEx approval for projects that we're looking at delivering, we must ensure that they align to where we want to get to" (W6).	Strategic Direction & Alignment; Credibility Building; Formal Approval
CSO3	"She was dreading the ICT strategy because she thought it was going to be very technical and they wouldn't be able to understand it. But they were very surprised and very happy. It was very customer and very business focused and that they could understand exactly what we were trying to achieve. So that was good feedback as that was what we were trying to achieve. We were trying to make an ICT strategy that wasn't technically focused and that was something that we could speak to business people" (W3).	Storytelling & Tailored Messaging; Stakeholder Engagement & Buy-In; Constructive Feedback
CSO3	"They were kind of articulating in the sub-strategies around making sure that they were clear. Where there was ambiguity, I was challenging some of the language there to say well, does this mean this? Or doesn't mean this? you know kind of a thing" (W8).	Constructive Challenge; Storytelling & Tailored Messaging
CSO3	"We kind of we went through kind of page by page kind of looked for comments and there was all of the members of the senior management team but it would have commented on various different aspects of the strategy" (W6).	Document Review; Constructive Feedback

CSO	QUOTE	OPEN CODE
CSO3	“Sometimes strategy documents can say a hell of a lot, but it'll say nothing at the same time... It has to be understandable and digestible and tangible to people who are going to read it, it has to be clear to the person and their business function on what does this actually mean for me. what I tried to do was align it and translate it and word it” (W10).	Storytelling & Tailored Messaging; Strategic Direction & Alignment; Document Review
CSO3	“...a lot of people would have previously would have said that the ICT strategy is very technical and very technical focused, whereas this time was very kind of more user and business focused and kind of putting the user and the business at the centre of it and trying to achieve what business was trying to achieve” (W3).	Storytelling & Tailored Messaging; Stakeholder Engagement & Buy-In
CSO3	“You know about telling the story and the narrative around what we're trying to say. So slides say one thing, but what is it we're actually trying to achieve here? So it was more around the storytelling of that, the end goal setting the vision and explaining specifically... So when we were presenting the strategy to the various different teams, whether it was cyber, ops or build a delivery or whoever it was we were presenting, it was tailoring the message. Specifically to them to say this is what it means for you, so that the slides didn't change, but the narrative and the storytelling behind it did” (W10).	Storytelling & Tailored Messaging; Change Advocacy; Communication Facilitation
CSO3	“There was kind of some graphics that have been done as well in terms of the strategy. So we reviewed the graphics. We provided a commentary there on that as well” (W6).	Visual & Presentation Quality; Constructive Feedback; Document Review
CSO3	“My input would be around the communications of the strategy, does this strategy make sense to the laypersons. I definitely have an element of that involvement that like you know is this overly technical or involves jargon etc... I get involved a lot on the arts and crafts area and creating slides and kind of joining up to the message to make it easy to understand and digest” (W13).	Storytelling & Tailored Messaging; Visual & Presentation Quality; Communication Facilitation
CSO3	“I believe as an organisation it's about how we can try and maintain that opportunity to keep our strategy and sub strategies alive and make sure that they don't form on a shelf and gather dust so that delivery ambition and that delivery focus was a clear piece of feedback that I would have shared with the senior management team” (W11).	Maintaining Strategy as Living Document; Constructive Feedback
CSO3	“I would like to think collectively, it's more of a delivery arm and tactical operational approach to bring a strategy to life. So most certainly be too hands on whereby I'd be very engaged at a granular level. And I do think the sub strategy piece is so important in that. If as an organisation we pull together a macro strategy, you're not going to achieve the ambitions and objectives of that without the sub strategies” (W11).	Bring Strategy to Life, Drive for Detail
CSO3	“So very quickly, they started to talk around delivery chain. So we've got over that hurdle of bringing them through our ambitions. They spoke to delivery milestones and they talk around business benefits and they spoke around outcomes. So what was a strategic conversation very much so shifted into outputs and outcomes” (W11).	Delivery Planning & Sub-Strategies; ROI & Business Case Focus
CSO3	“...there was a North Star and an ambition identified, it was practically identified. But you could wrap metrics around it by means of KPIs” (W11).	Strategic Direction & Alignment; ROI & Business Case Focus
CSO3	“It was making sure that they were all on board and basically what we did, what we heard, what they said to us is basically what we put into our strategy and it's aligned to what they're thinking” (W3).	Stakeholder Engagement & Buy-In; Scope Definition & Protection
CSO3	“I reviewed the strategy from the cost point of view, in case there was anything in there I could spot that was kind of driving up cost significantly that we hadn't budgeted so far” (W6).	Cost Sensitivity & Budget Constraints; Document Review; Formal Approval; Value Contribution
CSO3	“I found a number of the sub strategies where we were challenged was trying to bring them back to the wider business ambition. So as I said, those three key documents that we're all things Thrive WSSP and IRC4, how did our sub strategies align to that? So that was a piece that I felt was coming back as a recurring theme to try and link it back into a practical ambition of the business” (W11).	Strategic Direction & Alignment; Reality vs Ambition Alignment

CSO	QUOTE	OPEN CODE
CSO3	“...have looked at where these applications that we have are going in the marketplace of vendor Roadmaps, but also to look at do we keep such a diverse landscape of applications or do we start to consolidate down on particular applications? So ServiceNow, for example, we're probably doing more with them. Do we move away from Citrix and go to Azure Virtual desktop, locking ourselves more into Microsoft? So looked at some of those specific application Roadmaps from my side, I would have added the delivery side of it like what it would take to actually implement these projects, whatever, and then from the commercial side, we have looked at them from a cost to actually implement because while it may make sense technically to do it, the cost may be prohibitive to have.” (W12).	Technology Roadmapping; Cost Sensitivity & Budget Constraints; Strategic Direction; Value Contribution
CSO3	“...They [The Board] wanted to clearly understand, If you look at your best in class players externally in the marketplace, who are our peer groups. So we were able to bring them along that journey in terms of that engagement piece at a peer group level... They all spoke around the actual strategy formulation, so which kind of caught me off guard at the time” (W11).	Peer Benchmarking; Stakeholder Engagement & Buy-In; Collaboration; Asking Questions
CSO3	“What they didn't have was an operational focus on the application piece, so I asked them to include a principle around supportability by design. As we build applications that they're actually thinking about, how often, how much work is involved in keeping this going in a BAU capacity, do we need somebody configuring something every two days? Do we need somebody unblocking things frequently so that principle would be established as part of the strategy” (W8).	Strategic Direction & Alignment; Delivery Planning & Sub-Strategies; Executive Support; Formal Approval
CSO3	“They [The Board] spoke around that achievement piece and whether or not the achievement piece was achievable...where the governance models in place hampering in terms of enabling us to achieve what we wanted to achieve, so the question is very much got into understanding... they wanted to understand how achievable it was whether we were being over ambitious with that particularly with challenges such as the ever growing landscape” (W11).	Reality vs Ambition Alignment; Pace & Phasing of Delivery; Critical Challenge; Governance Participation
CSO3	“I kept on pushing it back. So What? So what does this mean for the business? What is the end user experience so more often than not we deliver capability and change, we walk away but people rarely stop to think about the stakeholder or customer impact so that end user experience piece was really important that I tried to bring to every question. So why? Why, why, why are we doing this and then?” (W11).	End-User Impact Focus; Change Advocacy
CSO3	“My role in that was to challenge, was to probe, was to test the thinking and also to see how that thinking was aligned with our wider Uisce Éireann Strategies” (W12).	Constructive Challenge; Strategic Direction & Alignment; Critical Challenge
CSO3	“I suppose that was flagged was kind of those risks and mitigations, to try and address it whereabout by doing what we wanted to achieve, What are the risks to the organisation as a result of us trying to deploy this or bring it to life?” (W11).	Risk Identification & Mitigation; Risk Awareness
CSO3	“There was very much that angle I think in some spaces the strategies probably pointed to a little bit of a disconnect between the strategic ambition with what we have on the ground from an operational sense and a capacity to deliver, since an understanding where we are right now, that journey is longer, I mean it particularly around things like data etc. I mean we're a long way off from where the strategy wants us to be” (W8).	Operational Reality Check
CSO3	“For the data strategy, team was talking about a full brand new Enterprise Data warehouse and the challenges etc. yeah, I get the idea, but it's not in our funding submission. We already have existing data warehouses. Idea is great in principle, but in practise we won't be able to deliver this, so sometimes it's adding a bit of reality. I get that a strategy needs to be divorced from the do-ability. Like if they're saying this is the North Star, this is what we should do. But they need to be a little bit conscious of the reality in doing some of these things” (W12).	Reality vs Ambition Alignment; Feasibility Testing; Critical Challenge; Resource Access and Enablement

CSO	QUOTE	OPEN CODE
CSO3	“I suppose when, when we would have been engaged, I suppose you know, providing what our current Posture is, providing what the future Road maps of our current technologies, what's the road map of those technologies, where are they going, what's end of life, what's becoming defunct? Is it a dying brand? is it getting stronger in the market? Is it getting weaker in the market and you know, but being able to provide all that provides focus for the guys that as of what do we need to look at, what's the next emerging technology that would replace the current technology products we have?.... Where it's going in the future and it's all very unknown and it's very unsure. So we're putting together now plans to look at” (W9).	Technology Roadmapping; Technology Guidance
CSO3	“...But we have the boots on the ground. We know what these things are doing. We know what the plans are. We know what the future is. So providing that background. And I suppose the phrase the rubber hits the road, right? It's one thing talking about these things and understanding, you know, reading the sales pitch, which all of sounds fantastic. But understanding where the rubber hits the road, what the pitfalls are” (W9).	Operational Reality Check; Historical Context Sharing
CSO3	“It was all about the validation from the executives and across the board. So when we were going to the board, it was kind of a case of well, you know we developed this with the business. So we engaged all the stakeholders, we developed with them. We went back to them and played it back to them and they have approved it. So now it was for the board to approve, so we can progress to sub-strategy development” (W4).	Executive Approval & Sign-Off; Stakeholder Engagement & Buy-In; Formal Approval
CSO3	“When I sign off at the end, it was a question of “were we happy with documents” or not, so they could progress on. We all agreed to the documents you know subject to the comments we've made being progressed on, verbal approval was given at the end of the of the meetings” (W6).	Executive Approval & Sign-Off; Constructive Feedback; Formal Approval
CSO3	“Project team was definitely just looking for approval... I was probably wondering more vocal peoples in the in the room. I would say, it was not in a combative way. I think it was all very constructive. I don't think anybody had a fundamental issue with what was being presented” (W8).	Executive Approval & Sign-Off; Formal Approval
CSO3	“So there's uniformity across the strategies in terms of their structure, make up content and it was obviously from my own buy in. This is the word we're going spreading. So we want to make sure that you're bought into it, ultimately they were looking for my approval to proceed. So it was to say give the green light, probably a bit of direction, a little bit of clarity to progress” (W10).	Executive Approval & Sign-Off; Strategic Direction & Alignment; Executive Support; Formal Approval; Simplification and Clarity; Strategic Direction
CSO3	“I suppose given that I'm looking after the UE Transformation programme and a few other small areas, they obviously consider my input to see if the strategy has any impacts on my work areas and the business functions I engage with. They also asked me to consider is that, you know, does this make sense for the people you deal with, the stakeholders you deal with, is there any conflicts here or potential problems?” (W13).	Risk Identification & Mitigation; Stakeholder Engagement & Buy-In
CSO3	“But more often than not, if we don't give that level of support or escalation, so as an input to support keeping these documents alive, I think the team feel empowered that if they do need support, that I am contactable and that I am approachable and similar as well with the senior management team I think is critically important that if you want to try and maintain that living document, I think that accessibility is really important in terms of the checkpoints, not just being quarterly but having that point of escalation” (W11).	Maintaining Strategy as Living Document; Escalation & Accessibility; Executive Support
CSO3	“The wider Board had that ambition to try and understand where the blockers along the way” (W11).	Risk Identification & Mitigation
CSO3	“So I suppose our ambition to become a trusted technology partner won’t change in five years, but we’re trying to say this is where we want to get to in five years. You know, there’s obviously certain things that we might not be able to achieve or we might be able to achieve, but this is our target. You know, you sometimes don’t want to be setting targets that are too low. So you want to set targets that are high and you try to achieve them. And then if we don’t achieve them, then those feed into our next strategy” (W3).	Strategic Direction & Alignment; Reality vs Ambition Alignment; Change Advocacy

CSO	QUOTE	OPEN CODE
CSO3	“...what the background is, why we are where we are. And then sometimes a lot of that context goes awry. You know, why did we choose that technology? Why has it been decided like that in the past?” (W9).	Historical Context Sharing; Technology Guidance
CSO3	“Another example is reporting solutions, they suggested that we should only have one reporting platform, like I don't think that's right. I think there is a place for maybe more than one reporting solution as they're touching off different areas... like the mobility we've got MIP. So they're like everything should that is mobile should go on to MIP. Well, I don't know if I agree with that. There is a place for power platforms as well. The other piece as well, like that to say that we'll move away from MIP. Well, we've already invested a lot of money in that. We need to sweat that asset like just because someone else has a different sense of we should do, but there's a reality of that we've investment made and we were past the point of making a decision on that. We need to stick with what we have, that there was a bit of that type of that discussion” (W12).	Reality vs Ambition Alignment; Cost Sensitivity & Budget Constraints; Decision Influence
CSO3	“So if you have a strong, I wouldn't say hard but a strong position on something. He can be brought around once there's evidence there. But I just think how they both go about their business has been quite impressive just around driving the project along and navigating some fairly complex scenarios where they do give solutions to certain problems or options around what we could do and even just how they bring their own kind of experience to bear on situations for me has been great” (W14).	Collaboration in Problem Solving; Evidence-Based Persuasion
CSO3	“...I suppose the strategy painted a very idyllic picture, you know, we'll do A, B and C and we'll have amazing data, you know, which probably didn't reflect the chaos that is our data right now from our perspective” (W8).	Reality vs Ambition Alignment
CSO3	“I would say the executives, they engage, they contribute. They listen to us, they take our feedback. You know, they do share what their ambition is. They do partake in workshops, but do they really at the end of the day, get what they need to fulfil their short, medium and long term visions from the IT strategy, I'd say not in a timely manner” (W7).	Stakeholder Engagement & Buy-In; Continuous Alignment Validation; Constructive Feedback
CSO3	“I just think they see everything is very slow and bureaucratic now. What we do, we do well. But things do take time and you know, I would argue for good reason. You need your governance, we're spending taxpayers’ money. You know you're trying to do the best you can for the organisation and the community at large, but yeah, it's that whole business of everything is slow. Change is slow, change is limited” (W7).	Operational Reality Check; Change Advocacy; Governance Participation
CSO3	“Portfolios people go to the trouble of, you know, writing requirements documents on all of that. And you know where value propositions. And you know, you could have a hundred of them, and the top 20 see the light of the day, the other eighty are sitting there year on year and you know, if you didn't make the cut this year, it just means that you can do additional prioritisation next year, it means you go back in with the next 100 asks and it gets prioritised and does anything over maybe the top 20 ever see the light of day? Probably not” (W7).	Prioritisation Decision-Making; Capacity vs Demand Management; Strategic Prioritisation; Value Contribution
CSO3	“I suppose the things were so high level from a kind of a delivery perspective and the strategies that they were open to such wide interpretation. I didn't really feel like we were bound by any of it... I suppose what was said was being open to interpretation, and we almost followed a couple of those things down a rabbit hole to see what it meant...without any conclusion” (W8).	Feasibility Testing; Unmapped
CSO3	“The other thing would be around budget and spending, we obviously have finite money that we have to spend, so it's great if you have a strategy that says you're going to do 10 things, but do you have the funding to do those 10 things realistically, so challenging it from a financial perspective to see if it's feasible... Who's paying for that? You know, you can't do it if you're not having money. So that was another challenge that we looked at” (W13).	Cost Sensitivity & Budget Constraints; Feasibility Testing; Critical Challenge; Resource Access and Enablement

CSO	QUOTE	OPEN CODE
CSO3	“The reality is that we don't have multi annual funding from the department, we've annual funding, the amount of funding available for Uisce Éireann can change depending on how much you actually get from the department. So it's very hard to plan in long term when you only have annual funding and that changes year on year. So that's why we tend to do just the annual prioritisation for the year ahead of the projects we are going to deliver” (W6).	Annual Funding Cycle Constraints; Change Advocacy; Resource Access and Enablement; Strategic Prioritisation
CSO3	“It was kind of seeing that ICT Strategy was aligned back to business strategy. When the ICT strategy was being done, there were a number of focus areas, and total cost, cost drivers and potential cost reduction areas certainly wouldn't have been always one of the areas for the business and technology teams, and I wanted to bring to the strategy to make sure that was kind of that was factored in as well” (W6).	Strategic Direction & Alignment; Cost Sensitivity & Budget Constraints; Technology Guidance; Value Contribution
CSO3	“Which on a return on investment through identifying the proper sites so post those meetings, they would have identified key sites to transition and come over onto the national telemetry system and entirely would have been around the cost and the return on investment of that... The cost very much would sharpen the pencils of everyone in the executive room, approving the project to go forward so they would have looked at that in detail to see where money was been prudently spent and where maybe some monies would have been shaved off across the board” (W14).	ROI & Business Case Focus; Cost Sensitivity & Budget Constraints; Value Contribution
CSO3	“We have moved towards Sentinel, so look it brings its own challenges as well in that you know what we have to try and separate the strategy from the cost and vice versa” (W9).	Cost Sensitivity & Budget Constraints; Critical Challenge; Value Contribution
CSO3	“While we have a North Star and it stays vendor agnostic and it stays relatively agnostic to all types of vendors and technology, it's a direction we need to go and we need to fit that to what we're given as an organisation to spend and as we break down our sub strategies, that again then dictates the technology that we want to aim for, the place we need to be and how we can get there within the envelop we are given as an IT organisation, you know” (W9).	Strategic Direction & Alignment; Cost Sensitivity & Budget Constraints; Strategic Direction; Technology Guidance
CSO3	“When we have conversations, it's the total cost of ownership right out of these things that we talk about Cloud first and we get pushback from finance that you know cloud is very expensive this that and the other right and you know you have to look at the total cost of ownership of what on Prem costs you over the course of the five years. Just a hardware up front, but the five years of managing, maintaining patching, you know, all of that business that goes with. A 5 year term of a of AV block or of a hardware piece of hardware so it's bringing that you know. So we would bring that to them and then they would put the enterprise architecture twist on it and say right well this is where we think their savings to be made there's in you know efficiencies there's a movement here there's a decision to point to be made at this point in time” (W9).	Total Cost of Ownership Analysis; Decision Influence; Technology Guidance; Value Contribution
CSO3	“I suppose, a phrase I use quite often, that there's been good, there's been best in class, but then there's been good enough, right? So we need to look at what we have. So there's no point in, I suppose, going out and buying like Firewalls that are enterprise class Rolls Royce firewalls. If we don't need all of the technology that's in those firewalls, right or we can't utilise. So if we can only utilise 50% of the firewalls technology, what's the point in paying for the other 50%, you know? So by understanding that and understanding what we have internally, we can make a better choice when it comes to purchases and spend to be good enough, right. We don't have to be perfect. We don't have to be best in class enterprise. We have to be good enough for Uisce Eireann, you know? So that's where we need to cut our cloth and that what we have done in terms of spend.” (W9).	Good Enough Principle; Cost Sensitivity & Budget Constraints; Technology Guidance
CSO3	“Another key item was the return on investment. So why are we doing it? So what? Like I don't think the team saw the reality of why they were doing the exercise. And I was trying to bring to life what it meant for them. So what's in it for me was the piece that I kept on saying to the team” (W11).	ROI & Business Case Focus; End-User Impact Focus

CSO	QUOTE	OPEN CODE
CSO3	“I think it was just the alignment piece regarding are we on the same page as the Board have their objectives for what they want to achieve in the next 3-5-10 years. And are we working towards that and helping it and we have to align to that and that's a given and that makes sense so. If something like that was obvious that it wasn't aligned or wasn't moving at a fast enough pace, we could make changes down to say, suggest that or this was of a higher priority or that should be focused on a little bit more than the other teams, let's say, which aren't ultimately aligned to that necessarily” (W13).	Continuous Alignment Validation; Pace & Phasing of Delivery; Change Advocacy; Strategic Direction; Strategic Prioritisation
CSO3	“Being involved in terms of the implementation and the delivery of the strategy, the big piece of me in terms of my key takeaway is that I've got to have had the opportunity to dig deep, understand what the business want and understand the opportunities with what we can actually provide to the business... the learning was that bring the business along a journey which ensured that it's aligned with the overall” (W11).	Stakeholder Engagement & Buy-In; Delivery Planning & Sub-Strategies; Insight Sharing
CSO3	“He was extremely diligent, he reads everything right, but nothing ever phases him. I just think how he relays a question or relays an answer to a question. Everyone very much sits up and listens and goes that's a fair point, he doesn't get phased or doesn't get flustered. So I think for me personally, I think that's a good role model... to just witness that because you don't see that too often on a day-to-day. So when you do get to see it, you should definitely sit up and learn” (W14).	Role Model
CSO3	“where the teams really get engaged was in the sub-strategy development, how do we get there? What do we currently have? How do we make? How do we move from A to B to C to D to E to get to the North Star, you know and develop those strategies with the team, All very well saying Cloud first, how do we do it? What do we need to do? What are the steps, the interim steps to get us there? What are our current landscape look like and you know that like for the likes of me as an executive and all the other senior managers” (W9).	Asking Questions
CSO3	“We had the SMEs come to us and present, what their thoughts were on the strategy, so let's say it was 90% there from the local subject matter experts and their managers that will come into the executive managers then for a review and discussion. So we would have had a number of sessions potentially where someone would come in with cybersecurity hat on and take us through the strategy. And you know what's the goals medium long term, we would challenge it potentially or ask questions and then certain changes may be made before it was published or agreed and fed up to the board level, if that makes sense.” (W13).	Constructive Challenge; Stakeholder Engagement & Buy-In; Change Advocacy; Critical Challenge; Document Review
CSO3	“Spending lots of money on our infrastructure to improve stability, which reduces outages. Yes, you have a notice that there's no outages this month, but you know there used to be two outages a month and out to 0. So we should be broadcasting that. We're investing in the systems and this is a result. So, but why you? Why you may not have noticed as a general user, you know you need to be aware of it. You know that we are investing in the network and things like that. So broadcasting the good news stories and the investments in the network, that's been something that we've tried to” (W13).	Storytelling & Tailored Messaging
CSO3	“I didn't fundamentally disagree with anything they had in there. I suppose most of the comments I gave were on principles, I think the big thing I probably fed back on was where I perceived gaps from a strategy perspective and some of the principles that they had there... there was no argument, they fully accepted and they put it in there” (W8).	Constructive Challenge, Asking Questions, Confirmation and Checks
CSO3	“I was probably wondering more vocal peoples in the in the room. I would say end up not in a combative way. I think it was all very constructive. I don't think anybody had a fundamental issue with what was being presented” (W8).	Constructive Challenge, Asking Questions, Confirmation and Checks
CSO3	The organisation wanted and that was a real game changer for us in that we were able to clearly identify the North Star for IT at a business level. So the board were clearly very close to what the strategic ambitions of the business was... What I was very much so trying to achieve was to link in the strategic ambitions at an IT level to align with those with Thrive and WSSP2050” (W11).	Government & Regulatory Priority Influence
CSO3	“We went from quite a large deck, only down to about 10 slides. We then went on an exercise where we went round back to each of the members of the business executive team. So there's about nine different people. We presented the deck into them and their management team and we got feedback. It was the right thing to do, we got views from the executive, and with those views, we were able to tweak the strategy, we were able to massage it into to cover off” (W12).	Collaboration; Constructive Feedback
CSO3	“This wasn't kind of an ICT strategy that IT will go off and do it by themselves, ICT Strategy was an engagement strategy with the business, so we would need to work with the business in the next five years. Strategy was trying to say that we were going to become a trusted technology partner to the business, so that’s what we were trying to achieve” (W4)	Ambition setting, Stretch goals

4.3.5.2.2 Outcomes Gained by Executive Managers

The table below outlines the key domains of outcomes gained by the Executive Managers via their engagement with the UÉ ICT Strategy Development Project.

Table 21 - Outcomes Gained by Executive Managers - Case Study 3

CSO	QUOTE	OPEN CODE
CSO3	"...they were saying it was very, very ambitious in terms of funding and all and everything that was going on in business. I suppose that our answer to that was that we want to stretch ourselves. This is where we want to go to and this is where we want to try to get to over five years, will we achieve it? Potentially, or potentially not. (W4)	Ambition setting, Stretch goals
CSO3	"We also put a lens around kind of risk as well. What's the risk of not having a strategy, not doing these things? And so it was good to talk to those as well" (W12).	Risk framing, Strategic justification
CSO3	"...Having a direction and strategy is gold, you know, it is gold because you know, while finance work on an annual basis and a year on year end that you know that we have to work on a 5 year horizon constantly looking forward. So we need to know what's coming in 2027-28-29 you know we can't do what finance do and just focus on the next month ahead right" (W9).	Long-term planning, Strategic foresight
CSO3	"There's a lot of stuff in there that we'll never do, not because we don't want it, because it's just challenging and the nature of a good strategy, I think you should be able to achieve all of it, because you need to set the target quite far out and be quite far reaching. So I think that's one of the realisations that I have probably come away from it is that you look at it and I think 40% of that we can do, maybe another 30 or 40% that we should try and get to in the next couple of years, but probably 10 or 20% there that we never will. So that's probably a bit of a realisation around it" (W10).	Realistic expectations, Strategic prioritization
CSO3	"They [The Board] wanted to understand the model that we adopted, so for us to engage with the various different parts of the organisation, they wanted to get a sense in terms of how we actually formulated that strategy adoption piece that we have a delivery model in place, how do we get the business buy in? How are we able to demystify a lot of what was technical in nature and how did we make it?" (W11).	Strategy formulation transparency, Business buy-in
CSO3	"So I got them to bring me through how they approached this, I would have looked for well, what would the inputs to get you to this point and what have you done to get us to this point and team talked to how they have done interviews around the business. So what we would have called in the strategy, the voice of the customer. So getting input from people around the business. That was one element to us. We would have looked at third parties. What is happening in the utility IT sector, I'm being specific when I call out utility IT because that is typically it's not leading edge, not even bleeding edge, but it's a follower really. I meant to have a look at the wider sector" (W12).	Stakeholder input, Sector benchmarking
CSO3	"We brought them through the strategy, help them to see that the 10,000 foot picture as opposed to just the asset management and the asset piece and say this is where we're going to go as an organisation because people are so focused on their self and their teams and they forget about that enterprise level" (W10).	Enterprise perspective, Strategic vision
CSO3	"I think at the end of the day, the main goal of it was to set a vision of where we want to go and have the North Star to aim for. We can now put it in front of all of our teams and they have no reason or excuse to say, well, we didn't understand what our vision was, where we want to go. So it's documented, it's transparent" (W10).	Vision clarity, Team alignment
CSO3	"I think at the business level, it created alignments, relationships and like I think the business will step away from it and feel like they've been heard and listened to and IT will step away from it and feel like they listened and understand what the exact business sentiment are" (W10).	Mutual understanding, Cross-functional empathy
CSO3	"It gives, while we feed in, me security in terms of the next few years of my tenure that when I speak to my team, when I, you know, when we get into to discussions around what are we doing this year? What's our what does our plan look like for the next three to five years. We have a strategy that we fed into. We know the long term goal of the organisation... It gives us that forward-looking focus that we may not have the time or the patience or the where with all to take on ourselves, you know, and it having the enterprise architecture team, brings us on that journey and focuses our minds into that space, you know, because otherwise we're firefighting all the time and we're working on the day-to-day job" (W9).	Forward-looking focus, Strategic grounding
CSO3	"We're aligned as much as we can be and that while we're all doing our own things and our own silos that ultimately are feeding into the greater good and it's for a reason and we can always point it out if needs be. I think the wider IT team got a sense that we're all rowing in the same direction." (W13).	Unified direction, Team cohesion
CSO3	"I would not be anywhere near as close to the granularity of the day-to-day operations as the leadership team was when I stepped in, so it really gave me an opportunity to ask those silly questions and to be more hands on" (W11).	Operational exposure, Learning opportunity
CSO3	"At a personal level and a professional level, I have had the opportunity to get so deep and granular and it will most certainly serve me as I move along, not only in a professional level but at a personal level in terms of understanding the wider IT environment" (W11).	Granular understanding, Professional development
CSO3	"Head of IT got the confidence around alignments to his objectives and his Director's objectives and the board's objectives on top of that" (W13).	Confidence building, Objective alignment

CSO	QUOTE	OPEN CODE
CSO3	"... So definitely confidence and credibility, for sure in that they felt it wasn't a one sided piece of work that was IT driven only but they felt it that was a business led strategy as opposed to a department led strategy which you think for me was the biggest learning not only in a professional or personal level but also in terms of an achievement whereby you've got a business to buy into your own ambitions but more importantly they felt as if they are part to it" (W11).	Business-led strategy, Shared ownership
CSO3	"Definitely at a board level, I felt when we walked away they had a level of confidence and credibility in what we were trying to achieve, whereby there was a piece of trust that was on both parties... Confidence, credibility, buy in were the three big areas when I left the boardroom" (W11).	Board confidence, Trust building
CSO3	"Having a strap line is very powerful and IT want to be more aligned with the business. That's it. We want to be a business partner... This allowed IT to be opened up things like budget conversations. What are you doing this? Well, based off a signed off strategy. Like the ability to be able to say I'm doing this because it's part of my strategic road map and that's worth its weight in gold and to be able to point to a time and place where it was signed off is very powerful" (W12).	Strategic legitimacy, Budget justification
CSO3	"We've got some very positive feedback in the Board meeting. It opens the gates, it allows us to do our work and it also means that when we're agitating for more headcount or we're agitating for resources or budget, We have a strategy. It's aligned with our strategy and we do check ourselves to say is this the right thing to do? Is this moving us towards a strategic ambition of being more customer centric and allowing to the business and that's obviously a good thing" (W12).	Strategic validation, Resource advocacy
CSO3	"We certainly ended up talking too much on that and we kind of said look we're agreed in principle with the strategy albeit it's not giving us anything that we can use here from making a better perspective you know, we've never deleted anything we don't. We've loads of unclassified data, we've loads of data coming from local authorities. We've SharePoint we've Alfresco and we've all this kind of madness, I need data organised better. I need people to take ownership of their data. I need classification of data. These are things I want" (W8).	Data management needs, Strategic gaps
CSO3	"...A 5 year term of a of AV block or of a hardware piece of hardware so it's bringing that you know. So we would bring that to them and then they would put the enterprise architecture twist on it and say right well this is where we think their savings to be made there's in you know efficiencies there's a movement here there's a decision to be made at this point in time" (W9).	Efficiency identification, EA collaboration
CSO3	"...and we fund each of those iterations and we look for technologies that have the ability to scale like that, you know, and I think that's really important for us as well is that we deal with technologies that can scale and that can provide us that that leap from startup to enterprise and the steps in between that we can move into. So that that's really important and it's a huge factor in how we decide our sub strategies and where we go next because you know yourself we are very strapped cash wise in it you know what we do get massive envelopes every year but by the time you've carved it all up into the 10 different areas and everybody gets a tiny piece, you know, it's an extremely expensive game of juggling, right, you know" (W9).	Scalable technology, Funding constraints
CSO3	"It very quickly gave me a very broad view of what the hell we're trying to achieve, why we're trying to do it and it gives you like you can put down your, your keyboard and mouse for an hour and read through the lot of them" (W10).	Strategic overview, Clarity of purpose
CSO3	"It gave me fantastic insight into what the where our technologies are going, how the business is growing, how the business is using technology to help it to grow... It is essential for me to keep ahead of that game, you know, to understand where the cloud is going, understand where OCI is going, understand where Azure going and you know to understand all that... it keeps me abreast of all that goes on" (W9).	Technology foresight, Industry/Market awareness
CSO3	"I was able to see during these sessions with the sub strategies what's going on in every team outside of my area and gain a bit of knowledge around you know, some of the technical aspects of what they do" (W13).	Cross-team insight, Technical exposure
CSO3	"Compared to some of the our peer water companies where we're not as far behind as we think we are. And in some areas, we might actually be ahead as soon as what describe ourselves as we've got quite a clean estate from applications and like it's getting more complicated every day. But we're generally clean like I think if we look to some of the UK utilities there, they've got systems attached onto systems where plug-ins on top of plug-ins and they probably don't have a clear view on what their IT architecture landscape looks like whereas I think we do, we do have quite a good view. So I kind of learned we're not in a bad place IT wise" (W12).	IT benchmarking, Strategic reassurance
CSO3	"By talking with peer utilities, I observed that some of the ambitions we have are aligned to what's going on elsewhere" (W12).	Industry alignment, Peer validation
CSO3	"... If you kind of take into that where we are delivering a best in class model. We're almost kind of mirroring the best behaviours of other kind of water utility. So again, it gave that oversight that what we were delivering was setting the standard or if not in line with some of the best water treatment companies out there, not just in Europe but in the US as well" (W14).	Performance benchmarking, Best practice modeling

CSO	QUOTE	OPEN CODE
CSO3	“We're trying to do as an EA function is have far more proactive and scheduled interactions with the business. So we go back and say, well, you know, we spoke to you maybe a year ago or a couple of months ago, here's the product of what we did. And here's the strategy and it helps them to understand where we're going and why we're why we're doing it so” (W10).	Proactive engagement, Strategic communication
CSO3	"That's been one of the benefits of this work, that people kind of felt like, you know, jeez, lads, that's actually really good. You've done that for us. So, we are trying to kind of knit it into our engagements with business... This then helps us to develop what our next five years looks like what our platforms need to be, how we need to develop, what directions we need to be going in and that makes my life a hell of a lot easier when it comes to” (W9)	Positive feedback, Future planning
CSO3	“...Control hub which were able to manage the largest kind of water treatment plants from a remote oversight control perspective. And it also allowed them for key benefits like centralised comms, out to the right individuals in in operations, and it certainly mitigated any health and safety risks from a single point of failure perspective” (W14).	Operational control, Risk mitigation
CSO3	“So while we don't have the funding to go Big Bang into the North Star Arena, we build a path and we understand what that path is and we understand that if we fund it over the years, it will grow into a capability that will reach that North Star” (W9).	Capability roadmap, Incremental growth
CSO3	“... you're looking after the right people and you're recognising when people are under a bit of pressure and kind of getting teams in to try and help them where possible. So that's for me has been the big wins for me” (W14).	Team wellbeing, Support mechanisms
CSO3	“That's what I would have got out of the engagement as I kind wanted to see, how we could use the strategy in terms of driving the direction now and that's one of the things we do when we look at the projects, we kind of decide in the portfolio every year. And one of the lenses that we put on prioritising projects is a strategic alignment as well as things like safety and regulatory criteria. Having the strategy agreed has helped to make decisions on which projects they do prioritise” (W6).	Project prioritization, Strategic lens
CSO3	“It's the BAU piece, is the demand and the funnel and the look forward then is setting the initiatives and setting the goals, putting them in front of the senior management team and saying this is the stuff that we should do. We might not have the money to do it or might not have the time to do it, but it's the stuff that we should do, And then it feeds into the prioritisation when funding is available” (W10).	Initiative planning, Funding alignment
CSO3	“I suppose laying that out for me in an intuitive way so that I can then talk to my team about right, this is the direction we need to go. This is where the business is going. This is where other businesses are going, and then discuss what technologies are coming down the line or what technologies do we have that need upgrading? Where do we need to go from here?” (W9).	Team direction, Technology planning
CSO3	“When it comes to developing annual plans, financing plans, operational costings, you know, what do I need to do? What tenders do I need to get out there? What frameworks do I need to put out in front of me so it, you know, to all of those things are essential to how we work as an organisation and, you know, having a strategy, having it nailed down, like the strategy is a north star. It's a direction we need to head. The sub strategies really is where do you develop the meat and the bones then, how do we reach that North Star? Right. So this then the North Star is the ICT strategy for the next five years. We know the direction we want to go” (W9).	Strategic execution, Sub-strategy development
CSO3	“...here's the strategy, we have the road map, but how do we now deliver and execute against the road map and that's something we're continually doing, Review the strategies and see, you know over the course of last 6-9 months have we delivered against it? Are we happy that we have been aligning our projects to the principles of our strategies and what else do we need to continue to do over the course of this year and into next year. So I think that's an ongoing iterative process and I think as soon as you start to find that you're veering from the strategy, maybe that's the point where you need to re-review the strategy and say has our goal changed or has our vision changed” (W10).	Strategy review, Execution tracking
CSO3	“I would have taken the OT strategy and then built it out across. So if you think about now the ICT strategy is a fully formed view as to what we need to do over the next two to three to five years. And what I did was I broke that down into kind of a within year 2025, you know, strategic games and objectives across that, and then we would kind of revisit that around now anyway for 2026 and see where we are so. As you know, strategy document is living and breathing. It'll always change, and we tweak here or there.” (W14).	Strategic milestones, Yearly planning
CSO3	“I suppose from my perspective, while I got out of it was the kind of the key principles that were strategically aligning. So if we're having a discussion about something silly, we say, look, our principle here is that it's this. So this is what we're doing. You know, unless there's a compelling reason not to, you know, and I can take the oxygen out of a lot of pointless conversations. So, you know... what I'll be hoping to do is to use these principles to hold projects to account going forward.” (W8).	Principle-based decisions, Project accountability
CSO3	“We know the direction we need to be going in, so it makes those conversations huge, hugely easier for me amongst my team to be able to say, you know, when it comes to hiring people, I can predict what that person will be doing for the next two to three to five years. So when I when I go out to market, I know what I'm looking for. I know where I have gaps and I know what I need to hire and that person then has a solid structure to build on for themselves and their development” (W9).	Hiring foresight, Team development

4.4 Conclusion

This chapter serves as the book of evidence for this thesis. Each case study was presented in a structured format, outlining the sequence of phases, unfolding activities, and the role of IS artefacts. The narrative highlighted how Executive Manager engagement and the use of IS artefacts facilitate effective strategic alignment process. Overall, the chapter demonstrated that active involvement from executive leadership is essential in shaping and sustaining strategic alignment between business and IS strategies.

The next chapter attempts to develop a theoretical framework.

5 Theory Development

This chapter sets out the foundations for the proposed conceptual framework. In the previous chapter, the in-depth case studies were presented using the narrative strategy approach suggested by Langley (1999). This section marks a pivotal shift from empirical description to theoretical explanation with the objective of developing theory from data.

This chapter begins by briefly reiterating the focus of inquiry and explaining how the research strategy outlined in Chapter 3 was operationalised and how data was analysed in practice in Section 5.1. Section 5.2 then presents the answers to the research question. It opens with a concise overview of the key findings and theoretical contributions to provide the reader with a clear sense of the chapter's trajectory, before addressing each research sub-question in detail. Section 5.3 reflects on the evolution of preliminary conceptual framework introduced in Chapter 2 and demonstrates how the empirical data as outlined in Chapter 4 reshape and extend this framework, culminating in the final theoretical model developed by this thesis. Section 5.4 draws the chapter to conclusion.

5.1 Focus of Inquiry

This research seeks to investigate the dynamics of the strategic alignment process, with a specific focus on the engagement with the Executive Managers. The research aims to map the strategic alignment process by identifying the distinct phases and stages of strategic alignment work as they evolve over time.

Furthermore, the research seeks to unpack the alignment activities and artefacts that are performed during each phase/stage, including the definition of key artefacts such as outputs and documents, and outline the content and structure of these artefacts. Additionally, the research aims to examine the approach and nature of Executive Manager engagement in governing the identified strategic alignment activities

throughout the respective phases/stages, thereby shedding light on their involvement, influence, and decision-making processes.

The thick descriptions of strategic alignment episodes from the three network utility organisations in Ireland have provided a nuanced understanding of the complex dynamics at play. Building on these rich explanations, this chapter endeavours to distil the underlying patterns, relationships, and mechanisms that govern the strategic alignment process. Through a systematic process of analytic induction and theoretical abstraction, this section will articulate a theoretically informed proposed theoretical framework that not only explains the observed phenomena but also aims to contribute to the broader IS discourse.

This research predominantly adopts a Strategy-as-Process perspective, focusing on the temporal unfolding of IS strategy work through phases, stages, and iterative cycles that sustain alignment. The primary concern is with the sequencing and structuring of activities that connect strategic intent to operational realities while focusing on the nature of engagement with Executive Managers. While the process lens dominates, the analysis incorporates elements of Strategy-as-Practice in relation to IS artefacts - examining how these tangible outputs function as boundary objects and enable coordination across diverse stakeholder groups. This integration ensures that the study accounts for the macro-level dynamics of the process as well as the micro-level material supports required to make strategic alignment practically actionable.

The methodological approach was designed to follow a process-oriented study. By embedding the process as the theoretical lens by which to study the engagement with Executive Managers in strategic alignment between business and IS strategies, a number of relevant features were examined. First, time is a cornerstone feature of process; this provided a longitudinal perspective on strategic alignment and the nature of engagement with the Executive Managers therein. Second, process embraces context and this gives insight into the internal and external environmental conditions that impact the events. Third, sequence follows the trail of events and illuminates how these unfold over time. Fourth, process takes account of roles and key actors and this enabled the research to focus on specified stakeholders (i.e. Executive Managers). Fifth, the content – including activities themselves along with their inputs and resulting outcomes (i.e. IS artefacts, deliverables, and outputs) - are central to the process, and examining the engagement

with the Executive Managers provides critical insight into how these activities unfold. The study uncovered the nature of the engagement with the Executive Managers, and their various contributions (inputs) and gains (outputs) that emerged throughout the strategic alignment process. Finally, a process theory is developed through narrative, an approach to tell the story based on the sequence of events as they unfold over time by describing the sequence of actions and interactions throughout.

5.1.1 Transition from the Stories from the Field to Theory Development

Having presented the empirical data from the multi-case study research in Chapter 4, which explored the complex and dynamic process of strategic alignment between Business Strategy and IS Strategy, this section marks a critical transition from description to theory development. The rich narrative accounts of the three case studies have provided a nuanced understanding of the phases/stages of IS strategic alignment work, the specific alignment work and IS artefacts developed within each phase, and the nature of the engagement with Executive Managers throughout. The table below outlines the theory development stages and activities completed based on the chain of evidence gathered in order to answer the research questions outlined in this thesis.

Table 22 - Initial Steps of Transition from Empirical Explanation to Theory Development

Research Question: How do executive managers engage with creating and sustaining strategic alignment between Business Strategy and Information Systems Strategy over time?				
Mapping of collected data, its nature and relevance to research sub-questions			**Stages of Theory Development**	
Research Sub-Question	**Data Sets Collected**	**Nature of Data**	**Data Condensation**	**Conceptual Abstraction**
What are the phases/stages of IS strategic alignment work as they unfold over time?	Sequence of events that forms the phases and stages of strategic alignment work as it unfolds over time	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Phases and Stages observed across the three case studies were identified with temporal bracketing and process analysis, and documented with narrative strategy.	Defined patterns, sequences and relationships to cluster emerging concepts that hold activities, tasks and IS artefacts together across the phases and stages of the strategic alignment process. The proposed Conceptual framework was then finalised with the completion of definition and mapping of IS artefacts within the sequenced stages for each phase.
What specific alignment work sits within each phase/stage?	Alignment related specific activities (including the definition of key artefacts' (i.e. outputs/documents) content outline)	**Process Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews **Documentation Data** - documents and their content in the form of input or outcome of the strategic alignment process	Common themes for observed activities (including the definition of key artefacts' (i.e. outputs/documents) content outline) across the three case studies were identified with temporal bracketing and process analysis, and documented with narrative strategy.	
How are executive managers engaged in each phase and what is the nature of that engagement?	Scope, depth and frequency of engagement, including the "inputs" and "outputs" of the engagement from Executive Managers' perspective	**Engagement Data** - Interview scripts, list of key points captured in the interviews, research memos, summary of interviews	Common patterns for the nature of executive manager engagement are identified. Engagement with Executive Managers analysed with the perspective of "inputs" and "outputs" of the engagement from Executive Managers' perspective across the three case studies. Assigned codes to collected information to commence categorisation into higher-level concepts.	Analysed the attributes of the nature of executive engagement and developed themes to interpret meaning and understand how participants make sense of their experiences. While temporal bracketing, narrative strategy and process analysis provided the structural and temporal framing, grounded theory strategy was employed as a data analysis strategy to support inductive theorising of the "inputs" and "outputs" of engagement with the Executive Managers. The analysis proceeded through iterative cycles of open coding, axial coding, selective coding and theoretical integration to finalise the proposed conceptual framework.

5.1.1.1 Qualitative Data Analysis – Process and Documentation Data

For the first two research sub-questions, the Researcher followed the same data condensation approach on the collected data sets which consisted of process and documentation related data. The initial step was to apply temporal bracketing on the collected process and documentation data to define the structure, while conducting a process analysis within each bracket to identify activities within each stage and boundaries between the phases. Once this is completed, narrative strategy was employed to interpret and document the sequence, dependencies, and relationships among participants, phases, stages and IS artefacts.

Conceptual abstraction for the first two research sub-questions followed a similar pattern that started with reviewing and revising condensed data, writing research memos and consolidating them overtime and revisiting the interview scripts and collected data, when necessary. This is completed after several review iterations that

had the objective of identifying underlying concepts that go beyond surface-level descriptions.

The next step was about defining patterns, sequences, and relationships to cluster emerging concepts that hold activities, tasks and IS artefacts together as outlined in Sections 5.2.2 and 5.2.3. The last step was then to complete the definition and mapping of IS artefacts within the stages of each phase, and to finalise the proposed theoretical framework that is outlined in Section 5.3 in this chapter.

5.1.1.2 Qualitative Data Analysis – Engagement Data

The data condensation and conceptual abstraction approach for the third research sub-question differed due to the nature of the engagement data, which included detailed information on the attributes (e.g. scope, depth, and frequency) of executive engagement (analysed with thematic analysis as outlined in Sections 5.2.5.1 and 5.2.5.2), as well as the "inputs" and "outputs" from the Executive Managers' perspective (analysed with grounded theory strategy as outlined in Section 5.2.5.3).

While both thematic analysis and grounded theory strategy involve coding and categorising qualitative data, they differ significantly in purpose, process, and theoretical orientation. Thematic analysis is a flexible method used to identify, analyse, and report patterns (themes) within data (Braun and Clarke, 2019). The Researcher employed thematic analysis to provide a rich, detailed, and nuanced account of the engagement data in relation to the attributes of the engagement with Executive Managers.

While temporal bracketing and process analysis were triangulated with the engagement data, it became evident that narrative strategy alone was insufficient to reconstruct the lived experiences and temporal sequences reported by informants - particularly regarding the "inputs" and "outputs" of engagement. Furthermore, thematic analysis was deemed unsuitable for this aspect of the case study data. In contrast, grounded theory strategy, as described by Langley (1999), is more systematic and theory-generative. It aims to develop new theories grounded in the data itself through iterative coding and constant comparison. Grounded theory typically involves deeper engagement with the data and a more structured progression from open coding to axial and selective coding, ultimately leading to the emergence of a core category or

theoretical model. Thus, while thematic analysis is often used for descriptive and interpretive purposes (Braun and Clarke, 2019), grounded theory strategy is explicitly designed for building explanatory theory (Langley, 1999).

The Researcher employed grounded theory strategy for qualitative data analysis of “inputs” and “outputs” of executive engagement as a sense-making strategy (Langley, 1999) with reference to the specific data analysis method described in Glaser and Strauss's (1967). While temporal bracketing, narrative strategy and process analysis provided the structural and temporal framing, the grounded theory strategy was employed as a data analysis strategy to support inductive theorising. This research utilised this technique not to develop a grounded theory per se, but to ensure that the emerging theoretical framework was empirically grounded and conceptually robust. The analysis, particularly on “inputs” and “outputs” of the engagement from Executive Managers’ perspective, proceeded through iterative cycles of open coding, axial coding, and selective coding (theoretical integration) to finalise the proposed conceptual framework.

The transition from axial coding to selective coding in grounded theory presents a conceptual tension between depth and abstraction. Axial coding, as developed by Strauss and Corbin (1998), enables researchers to elaborate categories by exploring their conditions, contexts, actions/interactions, and consequences. This results in a richly detailed understanding of the phenomenon under study. However, as the analysis progresses to selective coding, the focus narrows to the core category (central themes) that integrates and explains the central concern of the research. The Researcher felt that this shift was reductive, as it required leaving behind some of the nuanced complexity developed during axial coding. Charmaz (2006) acknowledges this tension, emphasising that selective coding is not about discarding detail but about strategically elevating the analysis to construct a coherent and meaningful theory grounded in the participants’ lived experiences. Similarly, Birks and Mills (2015) describe selective coding as a process of theoretical integration, where the richness of the earlier coding phases informs the final conceptual framework, even if not all elements are explicitly retained. The challenge that the Researcher faced was in maintaining theoretical sensitivity and ensuring that the depth of axial coding continues to shape the emerging theory while achieving clarity and parsimony in the final narrative.

To address the tension between preserving analytical richness and achieving theoretical integration, the Researcher adopted a layered presentation strategy in the conceptual theoretical framework. This approach allowed the selective coding outputs to be presented as the central theoretical narrative, while the detailed insights from the axial coding are retained and showcased in supporting layers. By doing so, the Researcher maintained transparency and depth, demonstrating how the theory is grounded in the complexity of the data without overwhelming the main narrative that is included in Section 5.2 of this thesis. This layered structure not only enhances the credibility of the analysis but also aligns with the principles of theoretical sensitivity and methodological rigor advocated in the grounded theory literature (Strauss and Corbin, 1998; Charmaz, 2006; Birks and Mills, 2015).

The resulting proposed conceptual framework synthesises the narrative accounts, processual dynamics, and grounded conceptual categories. It offers a data-driven yet theoretically informed explanation of Executive Manager engagement in the strategic alignment process, while maintaining transparency about the analytical strategies employed. By using grounded theory techniques analytically - rather than methodologically - the Researcher maintains methodological coherence while benefiting from the rigor and depth of grounded theorising. The following sections of the thesis will focus on outlining the answers to the research questions and findings as an output of the execution of the aforementioned steps towards theory development.

5.2 Answer to the Research Question

Mintzberg (1979) states that the first part of inductive research is the “detective work”, following one lead to another to uncover patterns and consistencies that can be surfaced with “peripheral vision” and “poking around in relevant places” (p. 585). The Researcher took this approach during the interviews, and Chapter 4 of this thesis is written with this detective mindset in play. Mintzberg suggests that the second part of inductive research is the “creative leap” and requires a "good dose of creativity" to support generalising beyond the data. In the same context, Klag and Langley (2013) advise that a “conceptual leap” is a mysterious phenomenon in qualitative research

where conceptual insight is expected to emerge from the data, and Weick (1989) describes as “disciplined imagination” (p. 516).

This thesis aims to provide an answer to the main research question set out as “*How do executive managers engage with creating and sustaining strategic alignment between Business Strategy and Information Systems Strategy over time?”*. The purpose of this introductory section is to present an integrated overview of the key findings and theoretical contributions that collectively address the main research question. It provides a synthesised summary of how the main research question is answered, thereby giving the reader a clear sense of the chapter’s overall trajectory before the detailed analysis unfolds in the remaining sections of this chapter that provides detailed analysis and narrative to answer each of the research sub-questions.

As outlined earlier in Chapter 3, this research adopts an interpretivist/constructivist epistemological stance because its purpose is to understand how alignment is constructed in practice: through interactions, artefacts, sense-making and sense-giving episodes, and evolving interpretations. Throughout the analysis, the focus is on actors’ meanings, the negotiated nature of artefacts, the socially mediated work of alignment, and the shifting significance executives attach to strategy activities. In this way, the interpretivist/constructivist stance underpins the entire thesis: alignment is not treated as an objective or measurable state but as something enacted, negotiated, and continuously reconstructed by organisational participants.

The first major contribution of this research is the development of the *Strategic Alignment Process Framework* as shown in the diagram below, which specifies the phases, stages, activities, and IS artefacts that constitute alignment work. The findings demonstrate that strategic alignment is neither a discrete event nor a static state, but a cyclical, multi-phase process of recurrent activities through which business and IS domains work to create and sustain coherence. This research proposes that IS artefacts are not merely outputs of alignment processes; they are central mediators that facilitate shared understanding, anchor decision-making, and translate strategic intent into operational reality - they do not simply appear alongside alignment activities as they actively shape how alignment occurs. In a processual and interpretivist/constructivist design, mediation is considered as that an artefact is the medium through which actors interact, negotiate meaning, surface conflicts, or converge. Mediation is demonstrated

through temporality, sequencing, and changes in actors' understanding and decisions after engaging with the artefacts as evidenced in across all three case studies.

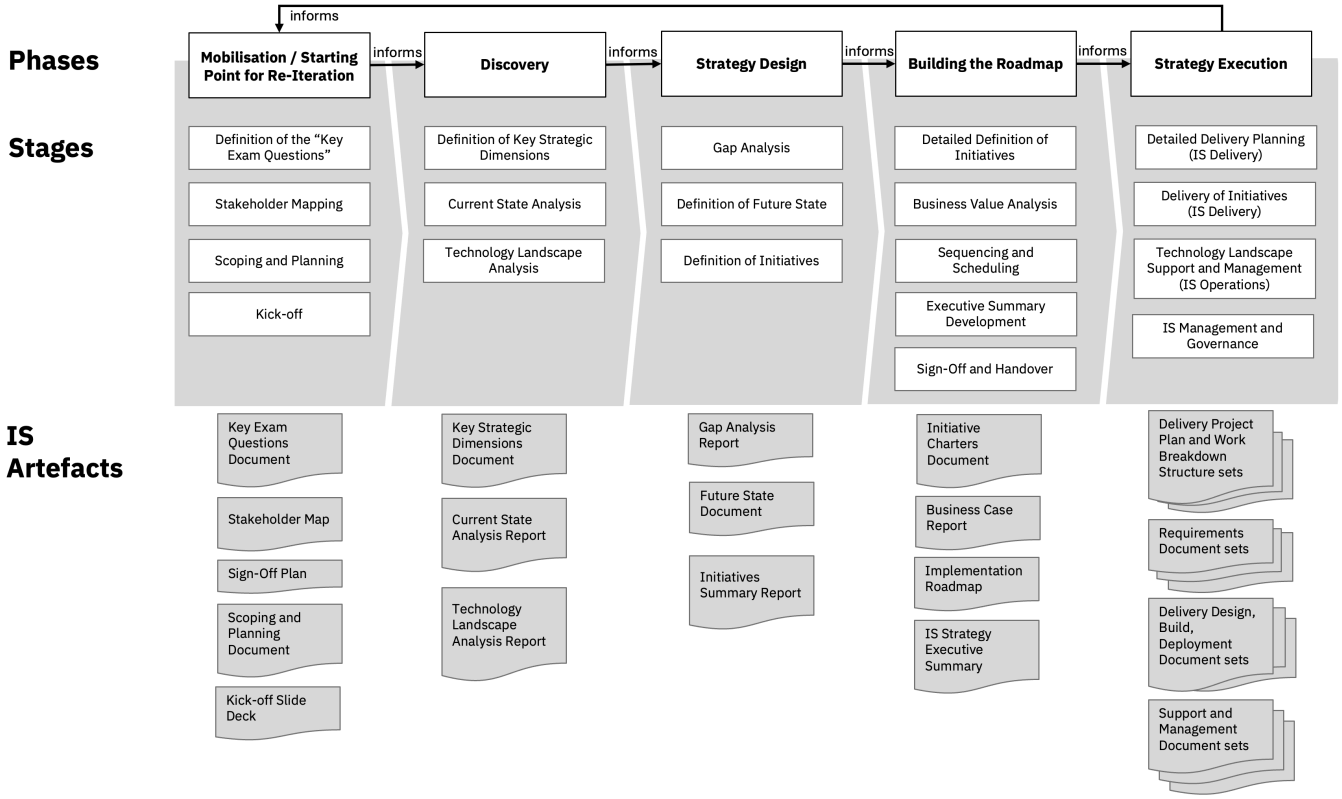


Figure 81 - Static Conceptual View of Strategic Alignment Process Framework - Phases, Stages and IS Artefacts

The second major contribution is the conceptualisation of the *Strategic Alignment Lifecycle Loop*, which depicts alignment as an ongoing organisational process shaped by iterative feedback between strategic intent, business requirements, organisational realities, technological constraints, and regulatory demand. This dynamic formulation challenges static models and underscores the necessity of continuous recalibration rather than one-off planning. It reframes strategic alignment as a recurring process centred at the intersection of three dynamic and reinforcing cyclical loops - *Strategic Sensing*, *Strategic Interpretation* and *Strategic Enactment*.

The third major contribution of this thesis is the articulation of the *Executive Manager Engagement Cycle*. The research demonstrates that executive engagement is not a uniform or static construct but a dynamic process that varies in depth, scope, and timing across the strategic alignment process. It is shaped by three forms of engagement (Governance, Discussion, Communications), and is characterised by four main attributes: Accessibility and Strategic Use of Executive Time, Preparation and Framing, Networked

Engagement, and Business Value-Driven Dialogue. The findings suggest that the Executive Manager Engagement Cycle - comprising the *Strategic Enablement Cycle* and the *Strategic Empowerment Cycle* feedback loops - operates in an entangled manner with the Strategic Alignment Lifecycle Loop.

The proposed theoretical framework advances beyond static or structural models of strategic alignment by adopting a fluid, dialogic and informed view of strategy formulation and execution. It foregrounds the lived experience of Executive Managers and positions their contributions and the value they derive from engagement as central to the construction of a viable, contextually grounded strategic alignment process. The resulting theoretical framework synthesises the narrative accounts, processual dynamics, and grounded conceptual categories.

The diagram below is complementary to the above diagram (Figure 81) and represents the end product of this research. The visual representation aim to provide a dynamic view of the proposed theoretical framework to reflect the circular, dynamic, and iterative nature of the strategic alignment process and entanglement between Strategic Alignment Lifecycle Loop (based on Strategic Alignment Process Framework) and Executive Manager Engagement Cycle.

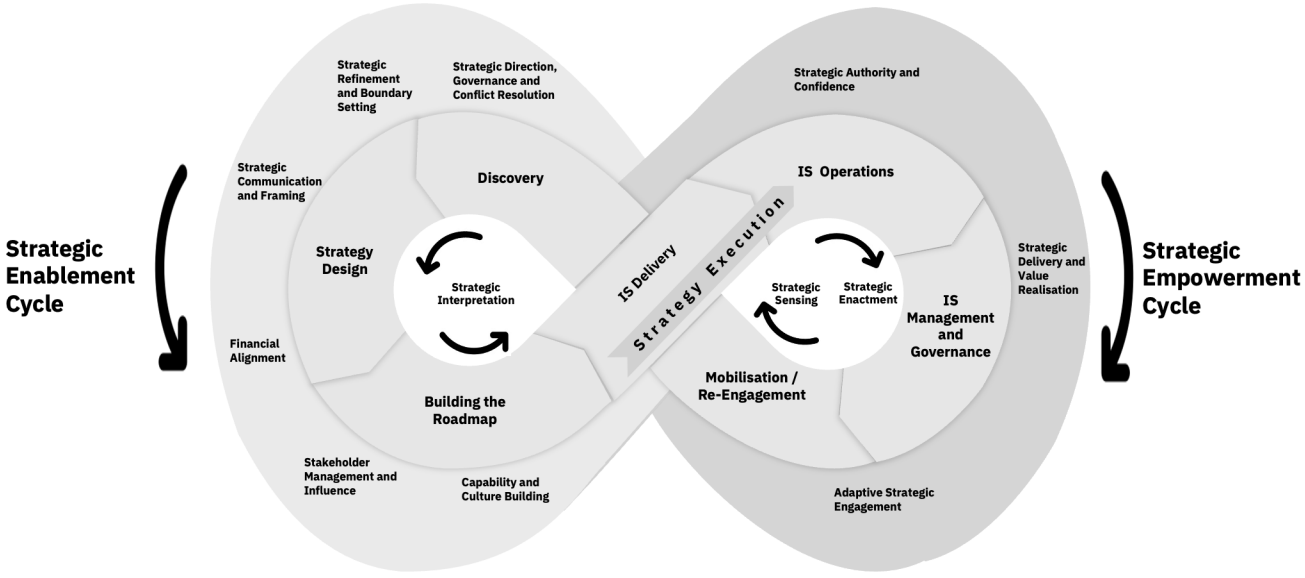


Figure 82 - Proposed Theoretical Framework[5] for Creating and Sustaining Strategic Alignment through Executive Engagement

This research conceptualises strategic alignment process through a three-step cyclical lifecycle loop as depicted as **Strategic Alignment Lifecycle Loop**. It begins with *Strategic Sensing*, where emerging drivers, risks, and opportunities are identified through the IS Management and Governance stage related activities of Strategy Execution phase of the Strategic Alignment Process Framework. Next is *Strategic Interpretation* (i.e. Discovery, Strategy Design and Building the Roadmap phases of the Strategic Alignment Process Framework), which frames the meaning and scope of strategic alignment in light of current business and technology contexts, particularly around trigger events. Finally, *Strategic Enactment* (IS Delivery, IS Operations and IS Management and Governance stages of Strategy Execution phase) translates strategic insights into action through IS Delivery (i.e. detailed planning and the delivery of new IS initiatives) and the continued execution of IS Operations. This loop reflects a dynamic and iterative approach to IS strategy development and renewal, grounded in performance review, external market changes, organisational imperatives and operational realities.

Regarding the middle lifecycle loop on the above diagram, representing the strategic alignment process, the Researcher notes that the strategic alignment process is a never-ending cycle of multiple strategic alignment episodes that follow the **Strategic Alignment Process Framework** that includes phases, stages and IS artefacts and is illustrated in the aforementioned diagram (Figure 81).

Regarding the outer lifecycle loop, representing the **Nature of Engagement with Executive Managers** (as in Figure 82). The Researcher notes that the *Strategic Enablement Cycle* focuses on the structural and procedural mechanisms that shape the design, governance, and communication of strategy. It ensures that strategic initiatives

[5] The Researcher notes that the Strategy Execution phase is shown as a combined set of its own stages (IS Delivery, IS Operations, and IS Governance and Management) in the diagram above, because these stages are interdependent, unfold over a long period, and need to be presented together to better articulate the flow for strategic enactment and strategic sensing activities as outlined in in Section 5.2.2.3 of this thesis.

are coherent, financially viable, well-communicated, and supported by capable individuals and a conducive culture. These mechanisms provide the strategic scaffolding (direction, legitimacy, and clarity) upon which empowerment can be built. These interactions are not linear but cyclical, with multiple reinforcing feedback loops ensuring that learning, adaptation, and recalibration occur throughout *the Strategic Enablement Cycle*. Upon the approval of the IS strategy related artifacts, particularly at the end of the Building the Roadmap phase, Strategy Execution phase commences and *Strategic Empowerment Cycle* is initiated as an outcome of *Strategic Enablement Cycle*. In contrast, the *Strategic Empowerment Cycle* centres on the relational and performative mechanisms that drive adaptive engagement, build strategic confidence, and realise value through execution.

As a result, strategic alignment process is centred at the intersection of two dynamic and reinforcing loops. Strategic Alignment process operates within the *Strategic Sensing*, *Strategic Interpretation* and *Strategic Enactment* cyclical lifecycle of Strategic Alignment Lifecycle Loop while the engagement with Executive Managers operate within the *Strategic Enablement Cycle* and *Strategic Empowerment Cycle* feedback loops of Executive Manager Engagement Cycle.

The remainder of this section presents the detailed analysis and interpretation of the stories from the field as outlined in Chapter 4. This analysis is organised in line with the structured data analysis approach set out in Sections 3.6.6 and 5.1 of this thesis, ensuring that the interpretation remains methodologically consistent and transparently grounded in the research design.

5.2.1 Answers to the Research Sub-Questions

The structure of the remainder of this section is aligned with the research sub-questions and is outlined below.

5.2.2 What are the phases/stages of IS strategic alignment work as they unfold over time?

5.2.3 What specific alignment work sits within each phase/stage?

5.2.4 Preliminary Conclusions on Research Sub-Questions 1 and 2

5.2.5 How are executive managers engaged in each phase and what is the nature of that engagement?
5.2.6 Preliminary Conclusions on Research Sub-Question 3
5.3 Revised Conceptual Framework
5.3.1 Reflections on Preliminary Conceptual Framework
5.3.2 Proposed Theoretical Framework
5.4 Conclusion

5.2.2 What are the phases/stages of IS strategic alignment work as they unfold over time?

This section aims to answer to the first sub-question of this research. Building on the theoretical frameworks within the strategic alignment literature as provided in Chapter 2 of this thesis, this research adopted a process-oriented perspective to conceptualise strategic alignment. Rather than viewing alignment as a static outcome or a one-time event, the strategic alignment process is conceptualised as a dynamic and evolving system of interrelated processes and activities. These activities operate within a continuous feedback loop, reflecting the iterative nature of aligning IS with business strategy.

The Researcher defines “Strategic Alignment” as a family of interrelated processes that operate in a cyclical and continuous feedback loop. These processes collectively govern the evolving relationship between IS and business strategy, and include:

- Establishing the role of IS within the organisation and aligning it with business strategy and objectives,
- Formulating IS strategy and overseeing the implementation of strategic initiatives,
- Making informed technology decisions and securing investment funding,
- Maintaining and evolving the existing technology landscape, and
- Executing IS strategy to meet the ongoing needs of business users.

The proposed definition is grounded on the empirical data (as outlined in Chapter 4) and aims to capture the multifaceted scope of alignment as it unfolds across

governance, strategic planning, technology decision-making, execution of IS delivery and operations, and management, maintenance and support of IS technology landscape.

The Researcher had initially approached strategic alignment as a process construct that includes a sequence of activities that could be observed, traced, and analysed. As the research progressed, it became increasingly evident that a purely process-oriented view was insufficient to fully capture the complexity and nuance of strategic alignment as it emerged in practice. In light of the empirical findings and theoretical insights, it became necessary to propose alternative yet complementary conceptualisations.

Detailed insights into the qualitative data analysis across the three case study organisations, along with the findings from process inquiry and temporal bracketing - including the phases, stages, and IS artefacts of strategic alignment episodes - are provided in Appendix 7 of this thesis. The appendix provides a detailed cross-case analysis and the rationale for the developed theory, which is summarised in the following three sub-sections, each outlining a distinct lens to enhance explanation and conceptualisation.

5.2.2.1 Strategic Alignment as a Process Framework

The first lens, shown below, offers a linear and static representation of the strategic alignment process. This view is derived from the analysis of process and documentation data collected during the fieldwork, as outlined in Section 4 of this thesis. The Strategic Alignment Process Framework, as depicted below, comprises five key phases each encompassing multiple stages with a series of IS artefacts developed throughout the process.

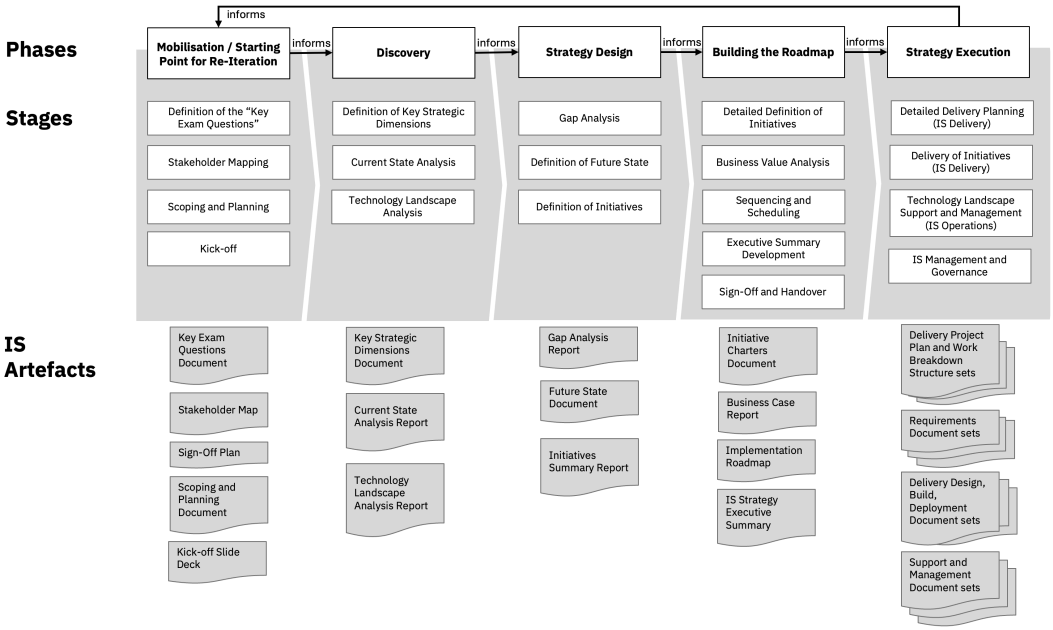


Figure 83 - Static Conceptual View of Strategic Alignment Process Framework - Phases, Stages and IS Artefacts

The definition of the observed phases are outlined in the table below.

Table 23 - Phase Definitions - Strategic Alignment Process Framework

Phases	Phase Description
Mobilisation	This phase involves defining an approach and plan, mobilising stakeholders and resources to support the strategic alignment process. The key activities in this phase include defining the "Key Exam Questions" and identifying key stakeholders and their roles and responsibilities, and availability, developing a communication plan to engage stakeholders and ensure alignment, establishing a project team and governance structure, and defining the scope, activities and objectives of the strategic alignment episode.
Discovery	This phase involves a full understanding and articulation of the business strategy and its impact on operational, data and technical capabilities (new or better performing than existing) needed; defining the current state of the organisation, including current business processes and supporting systems of record, systems of engagement and systems of insights; and level of performance, productivity, and prediction capabilities provided by the current technology landscape, and current data and information management practices. This phase provides a comprehensive understanding of the organization's current challenges and identifies gaps and areas for improvement when compared with the required operational, data and technical capabilities needed to enable the business to realise its strategy and objectives.
Strategy Design	This phase is the most critical part of the strategic alignment process, where the organization's IS capabilities are designed to support its business strategy and objectives. This stage engages both business and technical teams to design a snapshot of the future of IS in the organization and to outline the desired state for IS services and capabilities required to support business strategy and objectives. This phase involves defining the future state of IS in the organization, including its desired business outcomes and goals, future business processes and systems, future technology, and data and information management capabilities and practices. The Strategy Design phase also includes the review of existing operational issues in the delivery of IS operations, as well as maintenance and support activities related to the technical landscape, in order to improve the quality and stability of IS operations to meet business requirements and operational expectations. The outcome of this phase is a comprehensive IS strategy that defines and builds strategic alignment with business strategy and objectives by leveraging technology solutions to drive success for the organisation.
Building the Roadmap	This phase of the strategic alignment process focuses on translating the IS strategy into an implementation plan. It involves defining each initiative in detail, assessing its business value and commercial viability, and outlining a high-level delivery plan, including key activities, timelines, and resources required. This phase also focuses on identifying potential risks and developing mitigation strategies, along with preparing a detailed budget. This phase provides a comprehensive plan for implementing the IS strategy including sign-off and transition to the Strategy Execution Phase in order to deliver the desired business outcomes. This phase also includes the list of initiatives and their implementation plan that are aligned to improve IS Operations that will support the delivery of the IS Strategy in the Strategy Execution phase. This phase concludes with the formal completion of the IS Strategy and marks the beginning of the strategy execution phase, and includes the establishment of recurring strategic alignment checkpoints, designed to guide and monitor the execution of the agreed IS Strategy.
Strategy Execution	This phase of the strategic alignment process comprises parallel stages that encompass both the detailed planning and operationalisation of IS strategy initiatives, as well as the execution of IS operations. The planning and delivery of strategic initiatives involve mobilising delivery teams, developing detailed delivery plans, and managing interdependencies, risks, and resources through structured governance and coordination mechanisms. In parallel, execution of the IS Operations provide the foundational support required to sustain business operations, integrate new capabilities, maintain system stability, and ensure ongoing performance. This phase marks the transition from strategic formulation to tangible value realisation and represents a continuous component of strategic alignment process, as it includes the day-to-day execution and management of IS within the organisation to deliver on the strategic intent.

The second lens that the Researcher proposes to consider, as outlined in the next section, is the one that moves beyond a linear process model toward a more holistic understanding that reflects the integrative, structuring, and processual nature of strategic alignment. The Researcher suggests that the nature of strategic alignment is circular, dynamic, and iterative, as evidenced by both the case study narratives and the literature review presented in Chapters 4 and 2 of this thesis, respectively.

5.2.2.2 Strategic Alignment as a Conceptual Mechanism

The strategic alignment process is not merely a set of activities but a conceptual mechanism that guides IS teams and Executive Managers and to think and act in a measured and deliberate manner. Its purpose is to ensure that the IS strategy enables the IS organisation to both "do the right things" - aligning with strategic business objectives - and "do things right" - ensuring operational effectiveness and technological

fit. The connections between the cogs in the conceptual diagram shown below represent this strategic alignment mechanism.

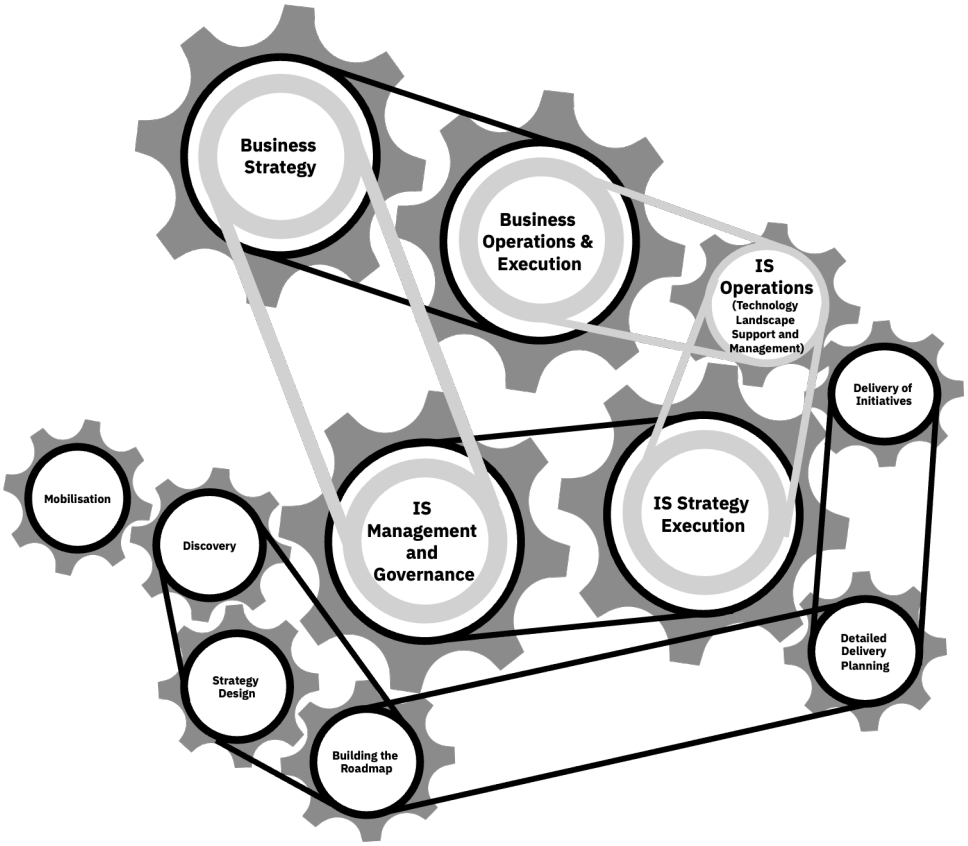


Figure 84 - Strategic Alignment as a Mediator between Business and IS across strategy development, execution and operations.

The strategic alignment process operates at the intersection of business strategy formulation and execution, and IS strategy development and execution, including the delivery of technology solutions and the ongoing management and support of the evolving IS landscape. The connections between the cogs are not fixed pathways but dynamic interfaces through which strategic coherence is continuously negotiated. Strategic alignment, therefore, is best understood as a mediating construct that enables organisations to translate strategic intent into actionable IS initiatives while maintaining responsiveness to technological possibilities and constraints and also providing a feedback loop between the IS strategy execution and IS operations.

Strategic alignment can be conceptualised as a structuring mechanism that organises and coordinates a constellation of interrelated processes within IS function. It provides the scaffolding through which IS strategy development, initiatives delivery, and technology landscape support and management processes are systematically connected

and governed. It constitutes a conceptual framework that systematically integrates IS strategy formulation, execution of strategic initiatives, and the operational execution of support and maintenance of the evolving technological landscape. As an integrative framework, strategic alignment facilitates coherence across these domains, ensuring that technological capabilities are not only responsive to but also proactively shaped by evolving business strategies and requirements. This integration is neither static nor linear; rather, strategic alignment unfolds as a processual construct, characterised by iterative cycles of negotiation, adaptation, and recalibration. In this sense, alignment is continuously enacted through dynamic interactions between strategic intent and operational realities, making it a vital mediator of business change and technological evolution.

The third lens that the Researcher proposes to consider, as outlined in the next section, is the one that moves beyond a mechanism oriented view to a more holistic understanding that reflects the dynamic and cyclical nature of strategic alignment.

5.2.2.3 Strategic Alignment as a Lifecycle Loop

The strategic alignment process is a never ending cycle of multiple strategic alignment episodes that follow the Strategic Alignment Process Framework as outlined in the earlier Section 5.2.2.1. The research also suggests that IS strategy comprises a family of integrated sub-strategies that are either revised over time or expanded with new ones throughout the strategic alignment lifecycle.

The commencement of a new strategic alignment episode marks a deliberate re-engagement with the strategic alignment process. The Researcher suggests that this is not merely a continuation of previous efforts, but is considered as a reinvigoration or reiteration of the strategic alignment process. Re-engagement with the strategic alignment process is a conscious decision to revisit, reassess, and realign the relationship between business strategy and IS strategy in light of evolving strategic objectives, organisational priorities, market conditions, regulatory changes, budgetary planning cycles, operational challenges or technological opportunities.

The Researcher suggests to conceptualise strategic alignment as a dynamic and iterative cycle comprising three interrelated activities: strategic sensing, strategic

interpretation, and strategic enactment. This framing draws on the strategy-as-practice, dynamic capability view and strategic renewal literature, particularly the organisational learning perspective articulated by Crossan and Berdrow (2003), which emphasises the flow of strategic insight through intuiting, interpreting, integrating, and institutionalising. Strategic sensing refers to the identification of new drivers, risks, and opportunities; strategic interpretation involves reframing what alignment means in the current organisational context and designing IS initiatives; and strategic enactment focuses on delivering and supporting IS initiatives that reflect the updated strategic direction. This conceptualisation is also informed by sensemaking theory (Weick, 1995) and enactment-oriented strategy literature (Bodhanya, 2014), which highlight the role of actors in shaping and responding to strategic change. While not previously formalised in this exact sequence within the strategic alignment literature, this cycle offers a synthesised lens for understanding how alignment is continuously created and maintained in practice.

This research proposes to conceptualise this re-engagement with a three step cyclical lifecycle loop. This lifecycle loop follows the outlined strategic alignment process framework (including its phases, stages and IS artefacts), with a reflection of review of the previous IS strategy and its execution performance combined with the IS delivery operations and management and governance perspectives. The re-engagement lifecycle loop involves the following three domains;

- Strategic Sensing: This step involves identifying emerging drivers, risks, and opportunities that may influence business or IS strategy. It reflects the organisation's ability to stay attuned to internal and external changes. The Researcher considers this as part of IS management and governance activities, which include keeping a pulse on business challenges and imperatives, as well as monitoring changes and advancements in the technology market. This step triggers the Mobilisation phase of the Strategic Alignment Process Framework.
- Strategic Interpretation: This step involves reframing what strategic alignment means within the current business and technology context, particularly in relation to the definition and content of the trigger event. This steps includes the Discovery, Strategy Design and Building the Roadmap phases of the Strategic Alignment Process Framework.

- Strategic Enactment: This step involves translating strategic insights into action by designing and implementing IS initiatives (IS Delivery), maintenance and support of existing technology landscape (IS Operations) via IS Management and Governance stage related activities. This reflects the updated strategic direction. The Researcher considers this as part of the Strategy Execution phase of the Strategic Alignment Process Framework, where initiatives are mobilised, designed in detail, delivered and governed to realise business value, while IS operations provide the maintenance and support of existing technology landscape, to sustain alignment.

The diagram below outlines the relationship between the lifecycle loop domains and the phases of the strategic alignment process. The Researcher notes that the Strategy Execution phase is shown as a combined set of its own stages (i.e. IS Delivery, IS Operations, and IS Governance and Management) in the following diagram because these stages are interdependent, unfold over a long period of time, and need to be presented together to better articulate the flow for strategic enactment and strategic sensing activities.

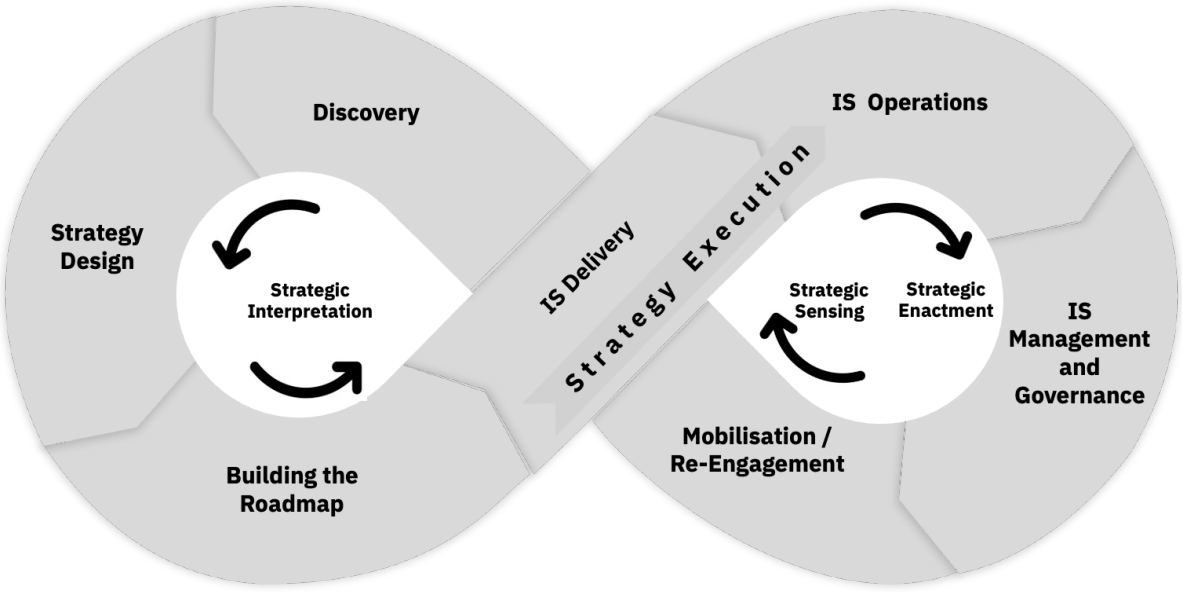


Figure 85 - Strategic Alignment as a Lifecycle Loop

As mentioned earlier, the Researcher argues that the “IS strategy” construct comprises a family of integrated sub-strategies that are either revised over time or expanded with new ones throughout the strategic alignment lifecycle due to the recent business or technology driven changes. The lifecycle loop is activated when a conscious

decision is made to revise the existing IS strategy in its entirety or introduce a new IS strategy domain that was either not included in the existing family of IS strategies (or IS sub-strategies) previously, or it requires a revision due to the recent business or technology driven changes. Once the strategic alignment lifecycle loop is activated, it follows the phases and stages outlined in the Strategic Alignment Process Framework. The Strategic Sensing loop triggers Mobilisation phase. The initial activities that follow the mobilisation phase in Strategic Interpretation loop typically involves activities such as stakeholder interviews, current state analysis, capability assessments, external market analysis. This means that prior assumptions, insights, and the core assumptions underpinning the previous strategy are subjected to critical re-evaluation. The goal is to establish a fresh baseline of understanding that reflects the evolving strategic direction, technological context and organisational aspirations. This re-baselining is crucial because it ensures that the IS strategy is not built on outdated or misaligned foundations. Instead, it becomes a renewed articulation of how IS can enable, support, and align with the business strategy going forward.

5.2.3 What specific alignment work sits within each phase/stage?

This section aims to answer to the second sub-question of this research. The detailed insights into the qualitative analysis of data gathered from the strategic alignment episodes across the three case study organisations along with the findings of process inquiry on the strategic alignment process are provided in the Appendix 7 of this thesis.

The table below provides a high-level mapping between the phases, stages and IS artefacts of the Strategic Alignment Process Framework that is developed to specifically answer the second sub-research question set for this research.

Table 24 - Phases, Stages and IS Artefacts - Strategic Alignment Process Framework

Phases	Stages	IS Artefacts
Mobilisation	**Definition of the "Key Exam Questions"**	Key Exam Questions Document
	Stakeholder Mapping	Stakeholder Map
	Scoping and Planning	Scoping and Planning Document, Sign-Off Plan
	Kick-off	Kick-off Slide Deck
Discovery	**Key Strategic Dimensions**	Key Strategic Dimensions Document
	Current State Analysis	Current State Analysis Report
	Technology Landscape Analysis	Technology Landscape Analysis Report
Strategy Design	**Gap Analysis**	Gap Analysis Report
	Definition of Future State	Future State Document
	Definition of List of Initiatives	Initiatives Summary Report
Building the Roadmap	**Detailed Definition of Initiatives**	Initiative Charters Document
	Business Value Analysis	Business Case Report
	Sequencing and Scheduling	Implementation Roadmap
	Executive Summary Development	IS Strategy Executive Summary
	Sign-off and Handover	Updates on IS Artefacts ("Living Documents"), Strategy Review Sessions and Revised IS Strategy documentation updates during the course of the Strategy Execution phase
Strategy Execution	**Detailed Delivery Planning (IS Delivery)**	Project Initiation Document, Delivery Methodology, Resource and Capacity Plans, Technical Environment Provisions, Risk Registers, Governance Frameworks, Approved Funding
	Delivery of Initiatives (IS Delivery)	Work breakdown structure and detailed documentation for requirements gathering, design, build, test and deployment phases of the solution delivery, Detailed Architecture Diagrams, Test Plans and Reports, Project Status Reports, Training Materials, Post go-live arrangements, and support requirements
	Technology Landscape Support and Management (IS Operations)	Service Level Agreements, System Monitoring Dashboard, Configuration Management Database, Incident and Problem Logs, Maintenance Schedules and Logs, Upgrade and Patching schedules
	IS Management and Governance	Management Status Report, Performance Trends Report, Delivery Project Status Report, Customer Satisfaction Report, Financial Budget vs. Actuals Report, Compliance Status and Performance Report, IS Resource/Skills Plan and Status

Appendix 9 of this thesis provides a detailed description of the Strategic Alignment Process Framework, including the complete list of stages for each phase, as well as the full set and detailed descriptions of IS artefacts specific to each stage.

5.2.4 Preliminary Conclusions on Research Sub-Questions 1 and 2

The "Phases" and "Stages" including the associated activities within, and the "IS Artefacts" for each stage of the strategic alignment process are documented and presented in the form of Strategic Alignment Process Framework as a novel contribution to the strategic alignment literature.

The Researcher has explored the evolving nature of strategic alignment work, presenting it not as a static achievement but as a dynamic, cyclical process that unfolds through distinct phases, stages, and artefacts. Drawing on both theoretical foundations and empirical evidence, the research reconceptualises strategic alignment as a family of interrelated processes - spanning IS strategy and planning activities, the implementation of technology solutions, and the ongoing management, governance, maintenance and

support of the organisation's evolving IS landscape - that operate within a continuous feedback loop, mediating the relationship between business strategy and IS strategy. Three complementary lenses were introduced to deepen understanding:

- Strategic Alignment as a Process Framework - offering a structured, phase-based view that maps alignment activities and artefacts across a linear progression. The full detailed description of Strategic Alignment Process Framework is provided in Appendix 9 of this research.
- Strategic Alignment as a Conceptual Mechanism - highlighting alignment as a mediating construct that enables strategic coherence between business and IS domains through deliberate and responsive action.
- Strategic Alignment as a Lifecycle Loop - framing alignment as a recurring cycle of strategic sensing, interpretation, and enactment, triggered by evolving organisational contexts, advancement in technology market and strategic imperatives.

Together, these lenses provide a comprehensive and nuanced view of strategic alignment as both a governance structure and a processual construct, capable of adapting to change, enabling strategic responsiveness, and ensuring coherence across IS strategy formulation, execution, and operations. The framework developed through this research offers a robust foundation for understanding how alignment work is initiated, structured, and sustained over time, and how organisations can systematically re-engage with alignment efforts in response to internal and external triggers.

Furthermore, strategic alignment unfolds through cycles of negotiation, adaptation, and recalibration, reflecting the evolving nature of both business strategy, operational realities and technological possibilities. As such, strategic alignment mediates between the formulation and execution of business strategy and IS strategy, guiding organisations to both "do the right things" - aligning with strategic priorities - and "do things right" - ensuring both business and IS effectiveness, efficiency and technological fit.

These three conceptualisations not only advances theoretical understanding but also provides practical guidance for IS and business leaders seeking to navigate the complexities of strategic alignment.

In the course of this research, the strategic alignment process has been examined through a constructivist/interpretivist lens, with particular processual attention paid to the sequence of activities and associated IS artefacts observed during the multi-case longitudinal field study. The analysis focuses on actors' meanings, the negotiated nature of artefacts, and the socially mediated work involved in aligning IS and business strategy. From this perspective, alignment is viewed not as a fixed or measurable state but as something continually enacted, negotiated, and reconstructed by organisational participants.

While the strategic alignment process framework, conceptual mechanisms and strategic alignment lifecycle loop revealed a rich tapestry of tangible outputs and documented practices, tracing strategic alignment-specific activities involving Executive Manager engagement proved significantly more challenging. Unlike the more visible and structured elements documented earlier in this chapter, strategic alignment also manifests through a series of intangible and often invisible tasks that permeate and shape the creation of IS artefacts without ever being explicitly codified. The Researcher examines these intangible and invisible tasks in the next section in order to address the third and final research sub-question.

5.2.5 How are executive managers engaged in each phase and what is the nature of that engagement?

This section aims to answer the third and final research sub-question, beginning with the analysis of Executive Engagement. Section 5.2.5.1 provides an inquiry into how engagement is designed, formed, and executed, and Section 5.2.5.2 outlines the attributes of executive engagement to deepen the understanding of its nature and timing throughout the strategic alignment process. Following the analysis of the "inputs" and "outputs" of executive engagement from Executive Managers' perspectives in Section 5.2.5.3, this section concludes with a consolidated explanation of the proposed theoretical framework as outlined in Section 5.3 of this thesis.

5.2.5.1 Executive Engagement throughout the Strategic Alignment

The overall aim of any engagement within a business context is to build a strong, supportive relationship across management layers, fostering a positive work environment and promoting professional growth to enable organisational success. The Researcher considers executive engagement as a process designed to produce an output based on defined inputs and constraints within a given timeline.

The following table outlines the consolidated list of executive engagement types[6] (engagement forms and frequency) observed in the case study organisations as outlined in Chapter 4 of this thesis.

Table 25 - Consolidated List of Executive Engagement Types

CSO	Engagement Type	Form of Engagement	Existing Structure or Unique Structure	Audience	Frequency	Scope	Depth
CSO1	Programme Board	Governance	Unique	Inter-group	Regular / Recurring	Wide	Low
CSO1	Project Management Forum	Governance	Unique	Intra-group	Regular / Recurring	Wide	Low
CSO2	IT Management Meeting	Governance	Existing	Intra-group	Regular / Recurring	Wide	Low
CSO1	Deep-Dive Sessions	Discussion	Unique	Inter-group	Scheduled	Narrow	High
CSO1	Scheduled Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO2	Project Status Meeting	Governance	Unique	Intra-group	Regular / Recurring	Wide	Low
CSO1	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High
CSO3	Executive Board Meeting	Governance	Existing	Inter-group	One-Off	Wide	Low
CSO3	IT Management Meeting	Governance	Existing	Inter-group	Regular / Recurring	Wide	Low
CSO3	Project Status Meeting	Governance	Unique	Intra-group	Regular / Recurring	Wide	Low
CSO1	Mobilisation and Visioning Sessions	Discussion	Unique	Inter-group	One-Off	Wide	Low
CSO2	Scheduled Working Sessions	Discussion	Unique	Inter-group	Scheduled	Narrow	High
CSO2	Deep-Dive Sessions	Discussion	Unique	Inter-group	Scheduled	Narrow	High
CSO2	Informal Reach Outs	Discussion	Unique	One to One	Scheduled	Narrow	High
CSO1	Regular One-to-One Sessions	Discussion	Unique	One to One	Regular / Recurring	Wide	Low
CSO1	Cascading Key Communications	Communications	Existing	Inter-group	Regular / Recurring	Wide	Low
CSO1	All-Hands Attendance and Business Updates	Communications	Existing	Inter-group	Regular / Recurring	Wide	Low
CSO3	Scheduled Working Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO3	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High
CSO3	Cascading Key Communications	Communications	Existing	Inter-group	Regular / Recurring	Wide	Low

[6] The detailed thematic analysis of engagement type (forms and frequency) data collected during the case study research across the three network utility organisations is outlined in Appendix 10 of this thesis.

The thematic analysis identified three primary forms of executive engagement - Governance, Discussion, and Communications - each playing a distinct role across the strategic alignment process. All forms share a common characteristic of regularity, typically structured as recurring meetings or updates.

Building on the Strategic Alignment Process Framework, the following diagram outlines the forms of Executive Manager engagement throughout the phases and stages of strategic alignment process.

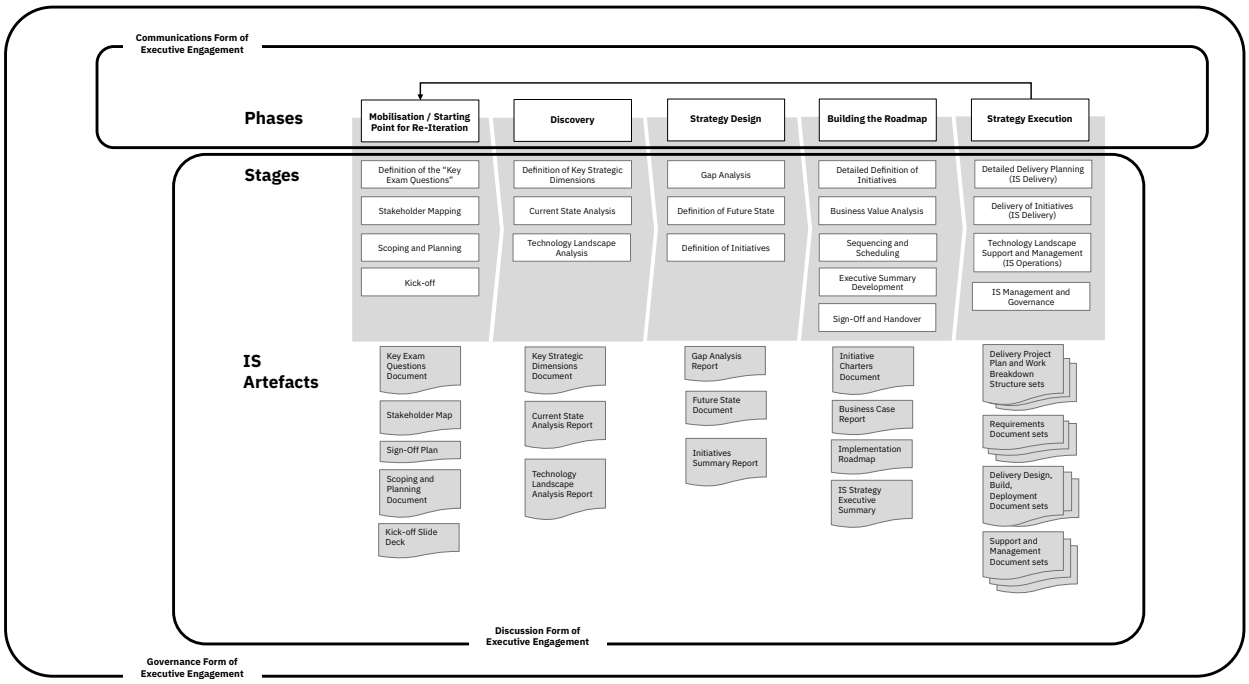


Figure 86 - Executive Engagement Across Phases and Stages of Strategic Alignment Process

The *Governance* form operates iteratively and cyclically throughout the process, focusing on oversight of IS strategy and operations, including review of planned activities, risks, financial health, approval of artefacts, and completion of phases and stages. Governance mechanisms integrate IS strategy development with existing organisational structures while introducing unique routines for continuity, and upon completion of the Building the Roadmap phase, responsibility transitions to established governance bodies for execution.

The *Discussion* form commences toward the end of the Discovery phase and continues through Strategy Design phase and Building the Roadmap phase, enabling in-depth dialogue. These engagements involve key stakeholders and support decision-making, with re-engagement during Strategy Execution phase as needed. Operational

issues identified during Strategy Execution phase often inform and impact subsequent iterations of the strategic alignment process, addressing technical debt, major enhancements, and ongoing changes driven by business requirements or regulatory demands.

In contrast, the *Communications* form operates at the phase level, providing high-level progress and business value updates to a wider audience via newsletters, intranet posts, or executive blogs. Personalised messaging by Executive Managers enhances authenticity and embeds the IS strategy and its execution across the organisation.

Collectively, these three forms of engagement ensure stakeholder involvement and alignment, and sustained focus throughout the strategic alignment process. The following table outlines the characteristics of the executive engagement among these forms aligned with Jenkin et al. (2019) and provides further insight on type, frequency, scope and depth of engagement with executives.

Table 26 - Forms and Types of Engagement with Executive Managers

Engagement Form	**Engagement Type** (**U**nique, **E**xisting)	**Audience**	**Frequency**	**Scope**	**Depth**
Governance	Executive Board Meeting (E), Project Board Meeting (U), Project Management Forum (U), Management Meeting (E), Project Steering / Status Meeting (U)	Inter-group; Intra-group	Recurring Schedule (e.g., weekly, bi-weekly, or monthly)	Wide	Low
Communication	Newsletters(E), Intranet Updates (E), Executive Blog (E), email (E)	Inter-group	Based on an agreed communications plan, generally monthly or quarterly recurring	Wide	Low
Discussion	Working Session (U), Deep-Dive Session (U), Informal Reach Outs (U)	Inter-group; Intra-group; One-to-One	One-off or regular sessions, scheduled or adhoc	Narrow	High

This research reveals that the *Communications* form of executive engagement leverages existing communication channels and formats (i.e. newsletters, intranet, blogs) during strategic alignment episodes. In contrast, the *Discussion* form establishes and sustains distinct engagement types tailored to these episodes. Finally, the *Governance* form draws on existing governance structures while also introducing unique engagement types specific to the strategic alignment episode's context.

These forms of executive engagement include four overarching core themes that underpin effective engagement with the Executive Managers. *Accessibility and Strategic*

Use of Executive Time highlights the importance of managing executive availability with discretion to preserve interest and impact. *Preparation and Framing* underscores the need for timely, well-structured, and strategically aligned materials to ensure productive interactions via delivering concise, jargon-free communication that resonates with executive priorities. Finally, *Networked Engagement* and *Business Value Driven Dialogue* reveal how executives leverage influence networks and anchor discussions in customer and stakeholder value to drive alignment and strategic outcomes.

5.2.5.2 Attributes of Executive Engagement

Based on the episodes analysed across the three Irish network utility organisations, the objective of this section is to provide a brief narrative outlining the balancing act between the frequency, scope, and depth of executive engagement, followed by a summary of the themes generated through the thematic analysis of the engagement data collected during the fieldwork, as outlined in Chapter 4.

This section adopts a thematic analysis approach to identify and interpret recurring patterns in how executive engagement is shaped. While grounded theory strategy is used elsewhere in the study (Section 5.2.5.3) to develop conceptual categories and theoretical insights on the nature of the engagement with Executive Managers, thematic analysis is employed in this section to provide a rich, contextual understanding of the practical dynamics observed across case study episodes. This dual approach allows the research to balance descriptive depth with conceptual abstraction. Thematic analysis is used to explore the attributes of executive engagement based on the detailed narrative provided (including chain of evidence) in Appendix 8 of this thesis, and the table below illustrates the four central themes outlining the characteristics of the executive engagement.

Table 27 - Thematic Analysis of Executive Engagement Attributes[7]

Representative Quoted Statement (Reference Code)	Emergent Theme
(E5-2); (G7-1)	**Accessibility and Strategic Use of Executive Time** ▪ Accessibility to Executive Managers is seen as a key enabler for effective engagement. ▪ However, this access must be strategically managed to avoid overuse and maintain executive interest. ▪ Senior Managers must learn to balance outreach—knowing when to engage and when to hold back.
(G8-4); (E12-3); (W7-7); (E11-6); (E9-5); (W9-18); (E11-8); (G8-13); (W12-9)	**Preparation and Framing** ▪ The quality of engagement is directly tied to the timing and preparedness. ▪ Executives expect teams to be well-prepared, with clear, concise, and concrete information. ▪ Avoidance of technical jargon, overly conceptual talk, or excessive detail is essential. ▪ The principle of "less is more" is emphasized to maintain attention and effectiveness.
(W11-17); (W11-12); (G8-11); (G5-10); (E12-20); (G9-16); (G9-15); (G9-14)	**Networked Engagement** ▪ Executive Managers are skilled at stakeholder management and navigating through the organisational dynamics and power structures. ▪ Effective engagement can extend beyond the executive's immediate remit, tapping into their influence networks to mobilise support across the organisation.
(W11-21); (G3-19)	**Business Value Driven Dialogue** ▪ Executives anchor discussions in business value, ensuring initiatives are tied to customer and stakeholder impact. ▪ Framing discussions in terms of strategic value is critical. ▪ This reinforces the importance of aligning technical or operational efforts with broader strategic goals.

The thematic analysis as outlined in Appendix 8 followed a structured process including familiarisation with the data, grouping into categories, iterative refinement, and validation against original data. This process surfaced four critical themes that define effective executive engagement within strategic alignment episodes.

These themes provide detailed description on recurring patterns, concepts, and insights that reflect the underlying principles and practices of effective executive engagement.

5.2.5.2.1 Accessibility and Strategic Use of Executive Time

Access to Executive Managers emerged as a key enabler for timely and outcome-oriented engagement. All forms of executive engagement, as outlined in Section 5.2.5.1, are constrained by the availability of Executive Managers and the realities of their attention span - the length of time an individual can concentrate. Teams managed scheduling constraints proactively by booking meetings well in advance and coordinating

[7] The information included in Appendix 8 outlines the thematic analysis conducted based on the engagement data collected during the fieldwork in order to identify the attributes of the Executive Manager involvement during the strategic alignment process.

with executive assistants to minimise disruptions. Once access was secured, it had to be strategically managed to avoid overuse and maintain executive interest. Engagement required a careful balance between depth and brevity - ensuring discussions were substantive yet concluded within the allocated time slot. Success depended on framing conversations at the right level and demonstrating the broader strategic impact of decisions. Executive Managers with strong organisational awareness were particularly effective in managing risk and influencing outcomes, reinforcing the importance of strategic timing and purposeful engagement.

5.2.5.2.2 Preparation and Framing

Preparation and framing were identified as critical enablers of successful engagement. Executive time is a scarce resource, and interactions must be concise, relevant, and strategically meaningful. The “less is more” principle guided communication, advocating streamlined messaging that prioritises clarity over complexity.

Executives consistently preferred straightforward dialogue, avoiding technical jargon or excessive detail. Effective preparation involved anticipating executive scrutiny, tailoring content to their priorities, and aligning discussions with strategic objectives. This proactive approach not only improved engagement quality but also built trust and credibility. Executives expected teams to arrive informed and ready for high-value dialogue, underscoring the need for strategic framing that connects operational details to business impact.

5.2.5.2.3 Networked Engagement

Executive engagement extends beyond formal governance structures into informal influence networks. When engagement reaches sufficient depth, executives leverage their relationships to mobilise support across organisational boundaries, creating momentum for alignment and change. Informal pre-alignment - such as early socialisation of ideas - proved instrumental in reducing resistance and smoothing decision-making.

Executives with strong political and relational skills were particularly effective in navigating internal dynamics and shaping outcomes. This networked approach highlights that executive engagement is not only about informing executives but enabling them to activate their influence to drive consensus and strategic execution.

5.2.5.2.4 Business Value Driven Dialogue

A defining characteristic of effective engagement was anchoring discussions in business value. Executive Managers ensure that technical and operational initiatives are consistently linked to customer and stakeholder impact, reinforcing strategic relevance. These dialogues went beyond transactional updates, serving as platforms for critical reflection, validation of assumptions, and recalibration of strategic direction.

By framing discussions around value, strategy teams foster deeper executive involvement, improved decision-making quality, and strengthened organisational alignment. This approach maintains a clear line of sight between execution and strategic intent, ensuring that IS initiatives deliver tangible business outcomes.

5.2.5.3 Nature of the Executive Engagement throughout the Strategic Alignment

The nature of any engagement is complex. Researcher has collected engagement data to breakdown this complexity by providing an “input” and “output” perspective. This section therefore aims to demystify the nature of executive engagement by outlining the key domains of input provided (i.e. what Executive Managers are providing during the engagement) and output gained (i.e. what Executive Managers are receiving as a result of their engagement) by Executive Managers across the three of the case study organisations.

Building on this approach, the analysis progresses to a process theory that explains how these “inputs” and “outputs” interact over time, identifying causal mechanisms, feedback loops, and the temporal rhythm of the strategic alignment process. This dynamic perspective reveals not only what Executive Managers contribute, but how their influence evolves and interconnects to shape strategic direction, alignment, and execution readiness.

5.2.5.3.1 Qualitative Data Analysis Approach for “Inputs” and “Outputs”

This section demystifies the grounded theory coding process and presents the resulting theoretical framework that deepens understanding of the nature of Executive Manager engagement in strategic alignment process.

The analysis and findings outlined in this section are aligned with the data analysis approach outlined in Section 3.6.6.4 of this thesis. The Researcher had utilised the engagement data collected across the three case study organisations - for “inputs” in Sections 4.1.5.2.1, 4.2.5.2.1 and 4.3.5.2.1 and for “outputs” in Sections 4.1.5.2.2, 4.2.5.2.2 and 4.3.5.2.2 of this thesis. Each statement was analysed to extract open codes which were then mapped to axial categories based on thematic similarity. Finally, the axial categories were synthesised into the central themes through selective coding. This analysis process enabled the identification of relationships between categories and the development of rich and thick descriptions of how Executive Managers shape strategic content, context and process. As the grounded theory strategy for data analysis is an inductive approach that allows theory to emerge from systematically gathered and analysed data, the three key stages followed are outlined in the diagrams below for “inputs” and “outputs” of executive engagement.

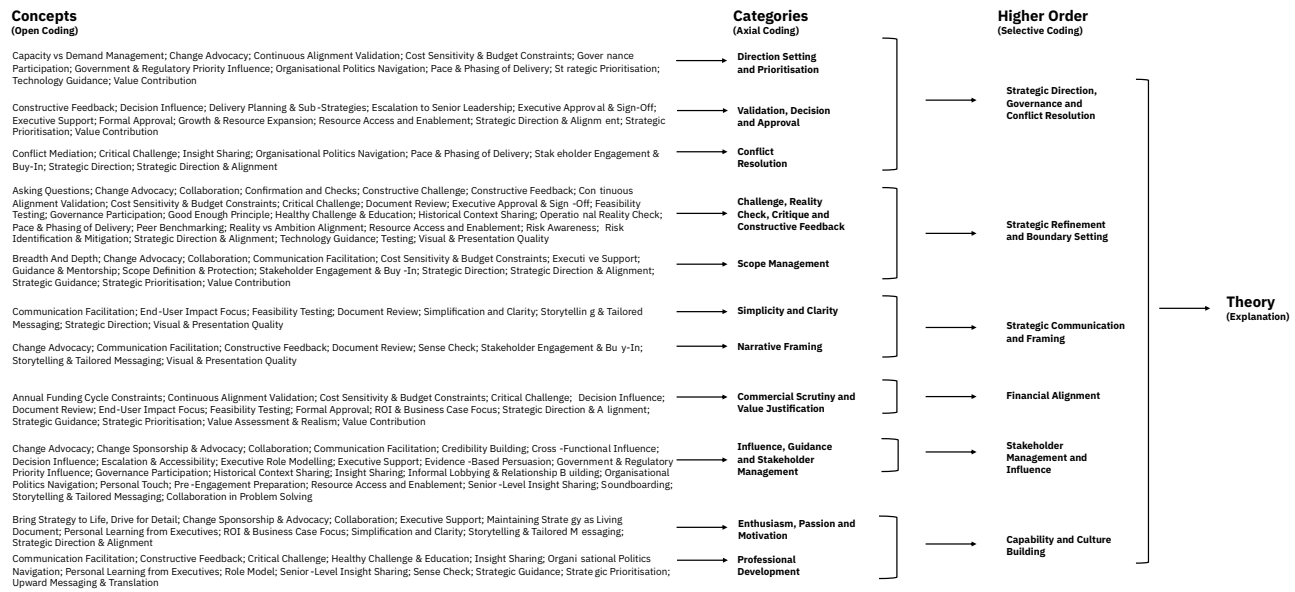


Figure 87 - The Progress of Theoretical Coding from Concepts to Theory (Inputs Provided by Executive Managers)

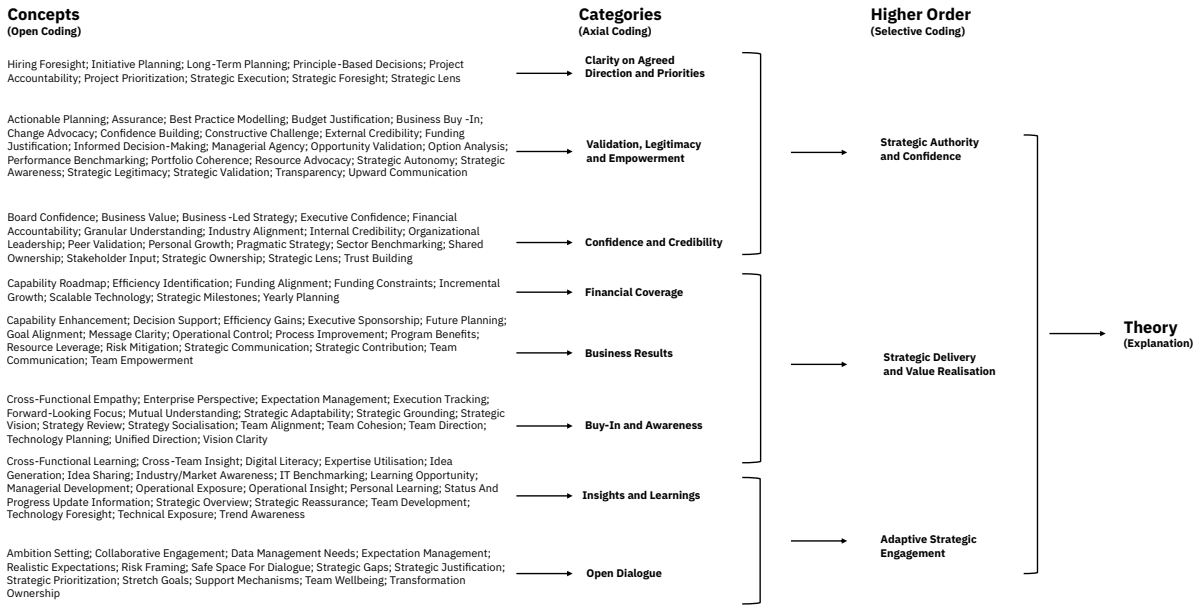


Figure 88 - The Progress of Theoretical Coding from Concepts to Theory (Outputs Gained by Executive Managers)

Through selective coding, these axial categories were further integrated into higher-order domains that distilled the core dimensions of Executive Managers' inputs/contributions and output/gains within the strategic alignment process. This abstraction process produced a set of selective codes that capture the most salient and interrelated aspects of their involvement, while retaining a clear connection to the underlying empirical evidence. This stage, consistent with the principles of Grounded Theory (Strauss and Corbin, 1998; Charmaz, 2017), involved integrating and refining the axial codes into a smaller number of higher-order conceptual categories that capture the essential, overarching dimensions of the phenomenon under study.

Selective coding was the final stage of the coding process, where the Researcher integrated and refined the categories developed during axial coding to form central themes that captures the essence of the nature of engagement from an input/contributions and output/gains perspective for better explanation. This phase ensured that the emerging theory is both grounded in the data and theoretically coherent by refining the theory by eliminating redundant categories, filling in gaps, and ensuring internal consistency. Each selective code integrated one or more axial codes under a unifying theme that directly addressed the third research sub-question. Provisional selective codes were checked back against the raw interview data and thick descriptions of axial codes to ensure that they accurately reflected the empirical evidence and did not

represent an interpretive leap beyond what the data could support. Through this process, the original axial codes were synthesised into selective codes, each representing a distinct but interdependent domain of engagement with Executive Managers.

Moving beyond the structural categorisation of contributions, the analysis then developed into a process theory that explains how these domains interact over time within the strategic alignment process. This process-oriented perspective identifies causal mechanisms linking the domains, highlights feedback loops and influence among the domains, and reveals the temporal rhythm of the process as it unfolds across phases and stages of the strategic alignment process. In doing so, the findings offer a dynamic, temporally sensitive explanation of how Executive Managers enable strategic alignment, showing not only - what they provide and contribute as “inputs” in Section 5.2.5.3.2 and what they gain as “outputs” in Section 5.2.5.3.3 - but how their actions, decisions, and influence evolve and interact to shape the trajectory of strategic alignment process.

5.2.5.3.2 Findings of Analysis on “Inputs” Provided by Executive Managers

The nature of any engagement is complex. This section presents the outcome of the selective coding and theoretical integration as outlined in Section 5.2.5.3.1, where the core dimensions of strategic input provided by Executive Managers (Figure 87) were identified and integrated. Through this process, the original eleven axial codes were synthesised into six selective codes, each representing a distinct but interdependent domain of Executive Managers’ input.

In the sub-sections that follow, each selective code is examined in turn, with a detailed description that integrates the thematic patterns identified during axial coding with illustrative chain of evidence from the data. The interim conclusions (in Section 5.2.5.3.2.7) outlined after the introduction of six central themes, not only clarify the substance of each domain but also lay the groundwork for the subsequent revision on the conceptual framework, which explores how these domains interact dynamically through causal mechanisms, feedback loops, and temporal sequencing within the IS strategic alignment process.

5.2.5.3.2.1 Strategic Direction, Governance and Conflict Resolution

This category captures the role of Executive Managers as the navigators, arbiters, and ultimate custodians of the strategic alignment process' directional integrity. Their contributions begin with the articulation of a clear vision for the IS function, one that is explicitly aligned with wider organisational objectives and responsive to the external environment. Executive Managers play a decisive role in setting strategic direction, making key decisions, and granting approval at critical junctures.

Executive Managers' contributions to direction setting and prioritisation are both strategic and adaptive. Strategically, they ensure that IS initiatives aligned with long-term organisational goals, are supported by value-based prioritisation methods, and are delivered within resource and budgetary constraints. Adaptively, they respond to emergent operational and reputational pressures and adjust investment focus as needed. This dual approach ensure that the IS strategy remains anchored to its clear vision (i.e. "North Star") while retaining the flexibility to adapt to changing organisational and external realities. Direction setting is exercised within the constraints of finite resources and portfolio management realities. This pragmatic filtering means that only the most valuable or urgent initiatives advanced to execution, underscoring the importance of rigorous prioritisation and value orientation. Executive Managers act as both navigators of long-term direction and arbiters of medium to short term priorities, balancing ambition with feasibility and stability with responsiveness. This is not merely an exercise in high-level visioning; it is embedded within the governance structures that determine how strategic decisions are emerged, discussed, made, documented, and enacted. Executive Managers operate within, and often shape, these governance structures to ensure that strategic priorities remain coherent and consistent over time.

Table 28 - Chain of Evidence - Strategic Direction and Governance

Axial Code	Context	Examples
Direction Setting and Prioritisation	Executive Managers's role is materialised with iterative review and validation, where teams present prioritisation analyses based on expected business value and sought executive oversight and confirmation.	"I suppose they helped us in our prioritisation, I guess that's linked with the strategic alignment but help us in in prioritising certain things as well. Although that's probably usually done more level down... which we would then present back to them to confirm what way we're going and get their confirmation that they're happy with that" (E6) "Executive Managers provide direction and they provide approval at a high level on the direction of travel, I suppose they make sure that we have that strategic alignment along the way" (E11).
	This role is extended to directing investment focus and prioritisation that is informed by executive-level discussions on strategic focus areas.	"They're just steering us as to where they want the investment to go" (E6) "As an example, Head of IT Strategy and Performance comes in and says, he has been talking to the head of IT and he says, we need to think about this, that or the other" (G3)
	Within the realities of direction setting and constraints management, Executive Managers play a role of key mediator in prioritisation.	"So I suppose our ambition to become a trusted technology partner won't change in five years, but we're trying to say this is where we want to get to in five years. You know, there's obviously certain things that we might not be able to achieve or we might be able to achieve, but this is our target. You know, you sometimes don't want to be setting targets that are too low. So you want to set targets that are high and you try to achieve them. And then if we don't achieve them, then those feed into our next strategy" (W3)
Validation, Decision and Approval	Their involvement ensure that IS initiatives are aligned with organisational priorities, stakeholder expectations, and governance requirements by confirming the appropriateness of the strategic direction highlighting the importance of consensus-building in strategic endorsement. In more complex scenarios, Executive Managers escalate decisions to the Managing Director to assess organisational appetite for sensitive issues such as industrial relations or contract renegotiations. This reflects a layered decision-making structure where executive managers serve both as strategic advisors and operational enablers.	"We discuss and finalise that it is the decision that this is the right way to go" (E10) "We're in the media today because of this, we have to sort that out first" (E5) "In some instances, executive managers are taking things to managing director to check the direction, do we have an appetite for Industrial Relationship (IR) issue, any appetite to get in to re-negotiation on contracts etc. – they are using the transformation programme team to think at the low level and come back with solutions and consequences" (E6)
	Executive Managers also act as gatekeepers for formal approval and are explicitly asked to "give the green light" to proceed.	"It was all about the validation from the executives and across the board. So when we were going to the board, it was kind of a case of well, you know we developed this with the business. So we engaged all the stakeholders, we developed with them. We went back to them and played it back to them and they have approved it. So now it was for the board to approve, so we can progress to sub-strategy development" (W4) "So there's uniformity across the strategies in terms of their structure, make up content and it was obviously from my own buy in. This is the word we're going spreading. So we want to make sure that you're bought into it, ultimately they were looking for my approval to proceed. So it was to say give the green light, probably a bit of direction, a little bit of clarity to progress" (W10)

A critical dimension of this category is the integration of conflict resolution into governance. Executive Managers play a vital role in conflict resolution, particularly in navigating tensions that emerge during the strategic alignment process. Their involvement was marked by proactive engagement, interpersonal diplomacy, and a commitment to maintaining alignment across diverse stakeholder groups.

Executive Managers are involved in resolving inter-executive disagreements by engaging in one-on-one conversations to understand differing perspectives, acknowledging that not all conflicts are fully resolvable but that learning and adaptation are part of the progress. In practice, strategic direction-setting often involves the reconciliation of competing demands from multiple stakeholders, business units, or functional areas. Conflicts may arise from resource constraints, divergent interpretations of organisational priorities, or differing appetites for change. Executive Managers engage in active mediation, balancing short-term operational imperatives with long-term strategic objectives. They have the authority to arbitrate between competing priorities, ensuring that the resolution of such conflicts is not ad hoc but instead grounded in the agreed strategic framework.

Table 29 - Chain on Evidence - Conflict Resolution

Axial Code	Context	Examples
Conflict Resolution	Executive Managers apply a pragmatic and relational style of conflict management. Conflict resolution also involves balancing competing interests across business units, often through informal mechanisms of influence and negotiation.	"Then you can see the storm coming as there is a conflict between the executives on a specific issue. I like to probably divide and conquer. So I would like to meet the 1 to 1 and, you know, see where they're coming from, see what the issues are. Just try to understand why they're different. It doesn't mean, it always gets resolved sometimes you get some, well, you know, you get a different answer so you just have to work with what you got. But that's ok. You know, because we're learning as we go, transformation by its nature is disruptive and it makes people uncomfortable" (E10) "...So there is that politicking side of it as well where you need to make sure that everyone has something and then we have our IT business partners. It's their role to go into these directorates then and say by the way, here's all the projects we're doing for you. Here's all the projects that are happening in the company that are not directly in your area" (W15)
	Executive Managers are also responsible for managing difficult conversations and addressing misalignments in expectations or priorities, particularly when strategic pace or phasing did not align with board-level objectives.	"So it's very much just how you manage the stakeholders. I think that's I think for me that's where I've really kind of like getting in there and kind of having those difficult conversations where needed" (W14) "Another one would also be a pace or you know, phasing of a project or an objective. Are we moving at a fast enough pace to hit the objectives at a balanced scorecard level or corporate level you have... Then you might say, well, hang on a second, we need to do 10 this year because that's what the board are expecting. So the pace and the phasing of our objectives was something we challenged. If it wasn't correct or aligned" (W13)
	In some cases, conflict arise from divergent views within IS versus business stakeholders, requiring executives to reinforce that the strategy was fundamentally built around business requirements, not individual preferences. This framing helps to anchor discussions in shared organisational goals and reduce friction stemming from technical or departmental biases.	"...people probed and asked questions, but at the end of the day, It was built on alignment to the business. So certain people within IT might have their own opinion. But the whole point was this was a strategy built around the requirements and the goals of business" (W10)

Executive Managers mediate disputes through one-to-one engagement to uncover underlying issues, apply political balancing to prevent perceptions of inequity, and engage in difficult conversations to manage tensions directly. Executive Managers act not only as problem-solvers but also as relationship stewards, ensuring that conflicts - whether interpersonal, political, or operational - are addressed in ways that preserve trust and momentum.

This combination of directional leadership, formal governance, and conflict resolution ensures that the strategic alignment process retains its coherence, legitimacy, and organisational relevance across the phases and stages of the strategic alignment process. Executive Managers validate strategic direction against organisational appetite and risk tolerance, engage directly in prioritisation and direction setting decisions, and provide formal approval as both a governance checkpoint and a signal of strategic alignment. Executive Managers' endorsement provide legitimacy and momentum to strategic alignment process, ensuring that the organisation could move forward with confidence and coherence. While setting the strategic course and resolving high-level conflicts provides the foundation for alignment, these directional choices require continual testing and adjustment to remain viable. It is through the process of strategic refinement and boundary setting that Executive Managers critically interrogate the emerging strategy, ensuring that it remains coherent, feasible, and within the agreed scope.

5.2.5.3.2.2 Strategic Refinement and Boundary Setting

Strategic Refinement and Boundary Setting refers to the evaluative, corrective, and scope-defining work undertaken by Executive Managers to ensure that the IS strategy remains both fit for purpose and aligned with organisational objectives. This domain is characterised by a willingness to interrogate assumptions, challenge untested ideas, and demand evidence for claims made within the proposed strategy and recommendations. In doing so, Executive Managers act as critical friends with "healthy challenges" to the IS strategy team - probing for weaknesses, identifying oversights, and ensuring that the strategy is robust enough to withstand internal and external scrutiny.

Their interventions occurred at multiple stages of the IS strategic alignment process, often acting as both a quality assurance check point and a means of reinforcing strategic alignment. Constructive feedback was provided at defined review points, particularly when the strategy deliverables had matured enough to allow meaningful engagement. Feedback provided was both corrective, addressing perceived weaknesses and constructive, adding new principles, considerations, and practical enablers. This feedback was often collaborative, with workshops and review sessions used to refine content iteratively in response to stakeholder comments.

Table 30 - Chain of Evidence - Strategic Refinement

Axial Code	Context	Examples
Challenge, Reality Check, Critique and Constructive Feedback	Executive Managers frequently challenge assumptions, probe areas of uncertainty, and test the robustness of proposed approaches. This challenge is informed by their extensive experience and aims to ensure that all relevant factors and alternative options were considered before strategic commitments are finalised.	"I get pushed back several times, you know, as I say, they have a lot of experience. So they say, 'well, look, I'm not sure about that, did you consider X, Y or Z?. And sometimes they give me pause for thought and just say, oh, I need to just have a look at that again, check that, reach out to a contact or etc, which is good" (E6) "I assure myself that the team have covered all the basis... I trust that the team have done the required work as part of the strategy development, but I'll test that in terms of exploring certain areas, reviewing it, challenging it where it needs be... and sometimes it will go deep in terms of if there's a particular concern I have or particular recommendation that I'm not clear on or I'm unsure of it" (G8) "We had the SMEs come to us and present, what their thoughts were on the strategy... we would challenge it potentially or ask questions and then certain changes may be made before it was published or agreed and fed up to the board level, if that makes sense" (W13)
	Challenges often take the form of targeted questioning, deep dive sessions into specific concerns, and testing alignment with broader organisational strategies. Such scrutiny was described as a form of healthy tension that strengthened the strategic output, even when it created short-term friction within the team.	"My role in that was to challenge, was to probe, was to test the thinking and also to see how that thinking was aligned with our wider company strategies" (W12) "Structured strategy document and executive summary presentation is the ultimate outcome of the strategy process, and in the latter part of the engagement, you start to see gaps. These gaps are more related to how the content is presented and explained to the other executive managers across the business, and resolution of these gaps create a little bit of friction in the core project team, and this is part of the healthy challenge that is provided by myself during the process" (G7)
	A recurring theme was the role of Executive Managers in grounding strategic ambitions in organisational realities. This included assessing feasibility against existing capabilities, resource constraints, operational maturity, and governance structures.	"There was very much that angle I think in some spaces the strategies probably pointed to a little bit of a disconnect between the strategic ambition with what we have on the ground from an operational sense and a capacity to deliver, since an understanding where we are right now, that journey is longer, I mean it particularly around things like data etc. I mean we're a long way off from where the strategy wants us to be" (W8) "They [The Board] spoke around that achievement piece and whether or not the achievement piece was achievable...where the governance models in place hampering in terms of enabling us to achieve what we wanted to achieve, so the question is very much got into understanding... they wanted to understand how achievable it was whether we were being over ambitious with that particularly with challenges such as the ever growing landscape" (W11) "...I get that a strategy needs to be divorced from the do-ability. Like if they're saying this is the North Star, this is what we should do. But they need to be a little bit conscious of the reality in doing some of these things" (W12)
	They highlighted disconnects between aspirational "North Star" objectives and the current operational baseline and pointing out where proposed solutions were not fundable or where delivery capacity was overestimated or or where timelines were unrealistic given the complexity of the operating environment. Executive Managers also challenged the provided market intelligence (e.g. vendor technology product roadmaps, product lifecycle status, and technology trends etc.) to ensure recommendations were future-proof but realistic.	"...I suppose the strategy painted a very idyllic picture, you know, we'll do A, B and C and we'll have amazing data, you know, which probably didn't reflect the chaos that is our data right now from our perspective" (W8) "For the data strategy, team was talking about a full brand new Enterprise Data warehouse and the challenges etc. yeah, I get the idea, but it's not in our funding submission..." (W12) "I just think they see everything is very slow and bureaucratic now. What we do, we do well. But things do take time and you know, I would argue for good reason. You need your governance, we're spending taxpayers' money. You know you're trying to do the best you can for the organisation and the community at large, but yeah, it's that whole business of everything is slow. Change is slow, change is limited" (W7) "...But we have the boots on the ground. We know what these things are doing. We know what the plans are. We know what the future is. So providing that background. And I suppose the phrase the rubber hits the road, right? It's one thing talking about these things and understanding, you know, reading the sales pitch, which all of sounds fantastic. But understanding where the rubber hits the road, what the pitfalls are" (W9)

The critique provided extended beyond substantive content to include the clarity, structure, and communicability of the strategy. Executive Managers identified presentation gaps, questioned whether the narrative was clear, concise and persuasive to other senior stakeholders, and suggested refinements to ensure strategic messages were both compelling and comprehensible. Executive Managers also scrutinised whether the IS strategy's statements were sufficiently precise to avoid misinterpretation or overly broad application. Contributions of Executive Managers ensured that the strategy evolved through iterative feedback loops, becoming more grounded, actionable, and aligned with both business realities and long-term ambitions.

Through a combination of challenge, reality checks, critique, and constructive feedback, Executive Managers enhanced the robustness, feasibility, and alignment of the IS strategy. Their inputs ensured that the IS strategy balanced aspirational goals and organisational realities with grounded execution pathways, thereby increasing its credibility and potential for successful execution.

The boundary-setting aspect of this category is equally significant. Scope management in the context of Executive Managers' contribution to the strategic alignment process include setting and safeguarding a clear strategic boundary, engaging the relevant stakeholders, and balancing necessary business and technological detail without losing focus on the overarching strategic intent.

Table 31 - Chain of Evidence - Boundary Setting

Axial Code	Context	Examples
Scope Management	The balancing act between breadth and depth is also evident in stakeholder engagement practices. Stakeholder inputs were actively incorporated to ensure alignment with organisational ambitions and key strategic documents, maintaining scope coherence across sub-strategies.	"I found a number of the sub strategies where we were challenged was trying to bring them back to the wider business ambition. So as I said, those three key documents that we're all things Thrive, WSSP and IRC4, how did our sub strategies align to that? So that was a piece that I felt was coming back as a recurring theme to try and link it back into a practical ambition of the business" (W11)
	Executive Managers ensure that the strategic narrative remain high-level and directional, while still being underpinned by credible, detailed analysis should it be challenged or interrogated by peers.	"... But he had to be ready to be tested on something by his peers, so to speak, as if, like, you know, ...it was important that he knew that there was detailed stuff or detailed analysis behind anything that we said... but he didn't necessarily want to talk about it... he would occasionally deep dive into one particular point..." (G2)
	Executive Managers emphasise the importance of establishing a clearly defined and agreed-upon scope articulating the overarching objectives, strategic focus areas, and intended outcomes to provide a structured framework for the strategic alignment process. The strategy was deliberately positioned as a guiding "North Star" for IS, shaping priorities and aligning with the wider business strategy, rather than functioning as a detailed operational plan outlining new functional requirements etc.	"It is crucial to form the scope properly at the beginning of the strategy project, to advise the team and guide them through the strategy development process. IT Application Strategy needs to be positioned as a North Star to guide not only what we focus on but how IT, as a whole function supports the business, supports our business strategy. As an Executive Manager, my role focused to provide guidance and mentorship to the senior and middle manager levels. Guidance and Mentorship provide more detailed scope for the strategy having a bit of force up, this was foretold to say what are we actually looking to try and get out of the strategy at the end of the engagement" (G7) "...maybe he was trying to protect was the scope of the strategy that he didn't want this to become an operational strategy in terms of what change requests needed, what functionality needed..." (G4)

Scope management is not treated as a one-off exercise at the start of the strategic alignment process but as an ongoing governance activity. Executive Managers actively police the boundaries of the IS strategy, ensuring that it does not become diluted by operational concerns or stray into areas outside its intended remit. This involves resisting scope creep, sustaining alignment with agreed priorities, and ensuring that sub-

strategies and initiatives remain connected to the overarching strategic framework. By combining rigorous critique with disciplined scope control, Executive Managers strengthen the strategic coherence and focus of the strategic alignment process, preventing the erosion of its intended purpose.

Executive Managers provide scope management within the following two intertwined dimensions to avoid diluting the strategy with excessive operational or project-level specifics, thereby preserving its strategic focus:

- Breadth control – defining and protecting the strategic boundaries to ensure alignment with organisational goals and to prevent scope creep into unrelated areas.
- Depth control – regulating the level of operational detail included in the strategic outputs to maintain a macro-level, directional focus, while retaining the ability to draw on detailed analysis when required.

Executive Managers ensure that the strategic alignment is delivered as a high-level framework capable of guiding IS function's long-term contribution to business objectives, underpinned by sufficient analytical depth to validate decisions without compromising strategic clarity.

Strategic refinement and boundary setting are closely intertwined with the financial realities of strategic design and delivery. As strategic recommendations and initiatives are critiqued and boundaries enforced, Executive Managers must also test whether initiatives are financially viable, value-justified, and fundable within organisational constraints - a function captured within the domain of financial alignment.

5.2.5.3.2.3 Financial Alignment

The empirical evidence from case study organisations highlights the central role of Executive Managers in applying commercial scrutiny and demanding value justification during the strategic alignment process. Their engagement extended beyond passive oversight to active interrogation of costs, benefits, business value and return on investment, with a focus on ensuring that strategic initiatives were both financially defensible and organisationally beneficial. This role was exercised through a combination

of challenging value assumptions, embedding cost awareness and commercial affordability into strategic dialogue and reinforcing accountability for value delivery.

Financial Alignment is the domain in which Executive Managers ensure that the IS strategy is financially viable, value-driven, and aligned with the organisation's budgetary frameworks and funding cycles. Executive Managers challenge both overly optimistic and unduly conservative value claims, insisting on evidence and clarity in the articulation of benefits.

Table 32 - Chain of Evidence - Financial Alignment

Axial Code	Context	Examples
Commercial Scrutiny and Value Justification	A strong theme across the empirical data collected is the extent to which Executive Managers interrogate the cost implications of strategic alignment to ensure that the impact of new investment on the existing operational spending and savings are considered. Such scrutiny extended to the identification of unbudgeted cost drivers during review stages in addition to the financial affordability and annual funding structure related concerns regarding the mismatch between strategic ambition and available funding.	"There are also things you pick up informally on the ground on what the Head of IT's actual priorities are...it was always about hardening the cost case or making sure that we were focusing on areas that were taking out costs, and we got a lot of queries and challenges around costs" (G2) "There was a lot of effort to portray the operational spending correctly because it was really important to the organisation and the scope of the strategy engagement, specifically on the cost take out objective" (G3) "It was kind of seeing that ICT Strategy was aligned back to business strategy. When the ICT strategy was being done, there were a number of focus areas, and total cost, cost drivers and potential cost reduction areas certainly wouldn't have been always one of the areas for the business and technology teams, and I wanted to bring to the strategy to make sure that was kind of that was factored in as well" (W6) "The other thing would be around budget and spending, we obviously have finite money that we have to spend, so it's great if you have a strategy that says you're going to do 10 things, but do you have the funding to do those 10 things realistically, so challenging it from a financial perspective to see if it's feasible... Who's paying for that? You know, you can't do it if you're not having money. So that was another challenge that we looked at" (W13) "The reality is that we don't have multi annual funding from the department, we've annual funding, the amount of funding available for Uisce Éireann can change depending on how much you actually get from the department. So it's very hard to plan in long term when you only have annual funding and that changes year on year. So that's why we tend to do just the annual prioritisation for the year ahead of the projects we are going to deliver" (W6)
	Executive Managers demonstrate a nuanced understanding of value, recognising both quantifiable financial returns and more difficult-to-measure intangible benefits. Value frameworks such as value scorecards or value/effort quadrands were employed to capture both tangible metrics (e.g., savings in euros, full-time equivalent efficiencies) and less tangible outcomes (e.g. unlocking the business, streamlining and improving processes). This dual consideration reflects a deliberate attempt to situate strategic alignment within a broader organisational value logic, beyond purely cost-reduction imperatives.	"We were conservative... in the value that we said we would realise... the business came back to us and said, no, I think you're probably understating the value that this will bring... So we will have to cover ourselves in terms of what we will return" (E9) "The intangible bit is harder to quantify... we did have a value meeting, and they want us to do a bit more work... it won't stop until we see the value" (E12) "In the programme, you start to do great things and you start to produce these lovely slides and pictures and all this, and then there comes a point where someone says, Okay, we're whatever million in this programme, where's value?. What are we getting out of this? Why are we doing this? And we're always value driven? So, and then you clearly explained that the reason for this review and prioritization is to, again, revalidate the permission that was received from. Business to say that they are still on, they are still aligned, and this is what they want, since things changes, it's a kind of alignment validation, it always happens when you're looking for more money" (E5)
	Executive Managers emphasised the importance of articulating clear business benefits, return on investment and its link to reputational accountability. A further dimension of this scrutiny was the insistence that business functions who would benefit from the new IS initiative to assume ownership of the value realisation.	"...they're probably getting like there's a lot of money being spent on... so that they need to know that it's been spent wisely and that they can stand over it as an executive..." (E11) "Another key item was the return on investment. So why are we doing it? So what? Like I don't think the team saw the reality of why they were doing the exercise. And I was trying to bring to life what it meant for them. So what's in it for me was the piece that I kept on saying to the team" (W11) "They're finding it difficult to show us where the money is being saved, they know their experiences better. They know their understanding is better and they know they're being driven to make more informed decisions. They know the quality of their conversations with contractors have improved. They can't put a price on that value. But my argument back was no, hold on, you've made the decision. This is business led and business owned. They have to own responsibility for the value" (E5)

Financial alignment also involves integrating financial considerations into strategic prioritisation. Initiatives must be not only strategically desirable and value oriented but also financially feasible and aligned with the organisational constraints. This requires having commercial awareness and aligning the timing and sequencing of strategic initiatives with funding availability and ensuring that unbudgeted costs are identified and addressed early in the process. By embedding financial and commercial mindset discipline into the strategic alignment process, Executive Managers enhance the legitimacy and defendability of the strategic alignment process, ensuring that it can withstand both internal governance review and external accountability pressures.

This aligns with a broader pattern of integrating financial discipline within strategic discussions, not merely as a compliance requirement but as a core component of

strategic decision-making. The evidence suggests that Executive Managers seek to institutionalise cost and benefit considerations into the strategic alignment process.

Ultimately, the Executive Managers' contribution ensure that the IS strategy was not only visionary but also grounded in financial realism, value accountability, and commercial scrutiny and defensibility, thereby enhancing its credibility and organisational buy-in. Their approach encompassed challenging and refining both tangible and intangible value cases, ensuring that cost implications were explicitly identified and addressed, testing financial feasibility against available funding structures, questioning the return on investment and "what's in it for the business" framing to maintain business relevance, reinforcing business ownership of value delivery, and embedding cost awareness into the strategic alignment process. This form of commercial scrutiny served to strengthen the legitimacy and defensibility of the IS strategy, positioning it as both a strategic enabler and a financially responsible investment portfolio. By maintaining a persistent focus on value justification, Executive Managers ensure that IS strategic initiatives could withstand both governance review and accountability pressures.

Financial alignment alone, however, does not secure the acceptance of a strategy. The ability to align stakeholders around both strategic priorities and the financial implications of those priorities is essential, and this is achieved through deliberate influence and relationship management.

5.2.5.3.2.4 Stakeholder Management and Influence

Stakeholder Management and Influence encapsulates the political, relational, and integrative work that Executive Managers undertake to ensure that the strategic alignment process is communicated, understood, accepted, supported and championed across the organisation. This domain is grounded in the recognition that even the most technically sound strategy will fail if it lacks the necessary coalition of support among the key stakeholders (i.e. business and IS key users, decision-makers and operational staff). Executive Managers leverage both formal governance channels and informal networks to influence perceptions, manage expectations, and secure alignment among diverse stakeholder groups.

Executive Managers shape priorities to align with political, regulatory, and organisational realities, provide strategic and operational guidance, build credibility through visible sponsorship, and engage in active stakeholder management using both formal and informal channels to influence decision-making process. By facilitating cross-functional alignment across the organisation, managing upwards to the board, remaining accessible for support, and co-creating IS artefacts and deliverables, they ensure that the IS strategy was both strategically aligned and operationally embedded.

Table 33 - Chain of Evidence - Stakeholder Management and Influence

Axial Code	Context	Examples
Influence, Guidance and Stakeholder Management	A significant aspect of their influence lay in shaping strategic priorities in response to political, regulatory, and organisational imperatives. Executive Managers act as conduits between the broader socio-political context, market insights and the IS strategy, ensuring that strategic focus areas reflected external pressures and high-level priorities.	"Their input is very real, they are managing the balance with government's priorities – housing connections gets priority over connecting wind-farms – as housing is an issue for the government... So when we come to them and we report up to them to say that "this is all that's happening and what we plan to do" and they'll go – "Yeah, I know, but we're talking to Leo Varadkar (Taoiseach) last week, and this is a big issue for the government. So this is what I want you to focus your time"" (E4) "He wanted one or two things looked at or emphasised on specifically, this was like hunch led belief that he had that they're spending too much money in Oracle and they could look at something cheaper somewhere etc. or requested to look at these things that haven't come up in stakeholder discussions, there's that level of guidance provided" (G3)
	Executive Managers provide guidance that helps the strategic alignment process to maintain the right balance between detail and high-level direction. They often act as sounding boards for risk assessment, mitigation and problem-solving. This guidance extend to reframing overly detailed work and to suggesting tangible principles to be embedded in the strategy design and execution. Such contributions reveal a deliberate shaping role, ensuring that the strategy remained both visionary and implementable.	"I find it's a really good sounding board, you know, these are really experienced people so they're really good where I have risks or issues that I can talk them through with them and they can even help me to crystallise solutions or mitigations" (E7) "...With the best will in the world, the team will have probably gone to too low to lower level of detail and may be missing the big picture in terms of ultimately what is this strategy about... That's one thing I do see is and it's understandable. People, you know, get invested in the strategy. They get into a level of detail. What I find my role is them bringing them back up over the detail and saying right at a high level what is this telling us" (G8) "What they didn't have was an operational focus on the application piece, so I asked them to include a principle around supportability by design. As we build applications that they're actually thinking about, how often, how much work is involved in keeping this going in a BAU capacity, do we need somebody configuring something every two days? Do we need somebody unblocking things frequently so that principle would be established as part of the strategy" (W8)
	Stakeholder management emerge as a critical function, with Executive Managers leveraging both formal governance structures and informal relationship-building to influence decision making process and secure alignment and utilise deliberate "pre-briefs" to ensure stakeholders were well-prepared for decision-making. These approaches demonstrate the use of political acumen and interpersonal influence to navigate organisational dynamics and reduce the risk of late-stage resistance.	"... I would go and set up a meeting with my senior sponsors. I call them, you know, so there's a lot of kind of lobbying of the senior stakeholders outside of the governance. Not, I don't have enough like a cadence or an official meeting. But I have like, you know, they would say to me, listen, anything you need, you just ring me, you text me, you put in 20 minutes in my calendar and we can talk through it. And I availed of that..." (E11) "..this is not like very formal engagement with the board, when it comes to my exec colleagues, if I want something. you know, if I want them to agree something, whether it be resourcing or whatever. I would socialise like hell. I would try to get to each of them at some point or I'd have my team get to each of them and say do a quick pre brief, you know just so the person is going in knowing and understanding what's there. So that would be a far more fluid and engaged type of environment" (G9) "I suppose the statements on the strategy would have built up over time. They didn't develop those statements in isolation. They would have met with us several times and the teams as well to discuss the statements... it had developed in tandem with ourselves. So you know it wouldn't have come as a shock. So there wouldn't have been a huge amount of feedback or pushback on some of the statements that were made" (W9)
	The credibility of the strategic alignment process is closely linked to visible executive support sponsorship. This credibility is further enhanced when executives publicly endorse IS artefacts and solutions, and "walk the talk" by modelling the adoption of new tools and processes, thereby reinforcing cultural change. Facilitating cross-functional alignment is another area where their influence was evident. Executive Managers helped teams reach out and get decisions made and ensure that IS initiatives are aligned with other transformation programmes.	"Like even to be able to say the executive management team are behind this gives it credibility, that in itself is support", (E6); "I suppose their support is absolutely vital for us to have credibility, because like, we're changing the ways of working for an awful lot of people in the company... Because that's a credibility thing and perception can be as important as the reality, you know" (E11) "Recently at that one of the business team meeting, one of the Executives talked about the product recently delivered, and said that 'I've used this and you should all use it'. So it's great hearing it from him, somebody completely independent of my pillar, this adds hugely to that credibility" (E10) "...they need to walk the talk as well, they have to change a little bit as well, as I keep saying to them, you know, we can push out some of these tools, but they need to be pulling from them as well saying, are you using the new dashboards?... we can't do it on our own, like because there isn't enough of us. So we need the business leaders to be Advocate Centre to be pushing for that change and lead by example" (E10)
	Executive Managers help teams to socialise new ideas and navigate upwards to the board and outwards to the wider organisation. Pre-engagement with both the business and the board was used to socialise strategic ambitions to key stakeholders, which in turn facilitated smoother approvals and stronger buy-in.	"In certain circumstances they can assist us in in reaching across the functional areas and helping us to deliver, help us to influence, help us to get decisions made and help us to understand who we need to engage with. That was definitely where we got a lot of value from them" (E6) "I suppose given that I'm looking after the Transformation programme and a few other small areas, they obviously consider my input to see if the strategy has any impacts on my work areas and the business functions I engage with..." (W13) "He was very keen to understand what we were doing next and also who we were talking to, in the sense of managing wider communications within the organisation, his contribution was critical to for us as he was helping in the navigation of the strategy to the upward level" (G3)

The role of Executive Managers in the strategic alignment process was multifaceted, encompassing influence over priorities, provision of strategic and operational guidance, and active stakeholder management. The evidence collected in this research suggests that these leaders acted not only as decision-makers but also as enablers, sponsors, influencers and navigators, ensuring that the strategy was both aligned with organisational objectives and accepted by key stakeholders.

Their influence is often exercised through targeted engagement strategies, such as pre-briefing key stakeholders before formal decision points, framing strategic content in

terms of its relevance to stakeholder priorities, and adapting aspects of the strategy to reflect input from influential actors. Political acumen is central to this process, as Executive Managers navigate organisational power dynamics while maintaining strategic integrity. By actively managing relationships and aligning diverse interests, they reduce resistance, accelerate approvals, secure permissions and create a supportive environment for strategic alignment process throughout the strategic alignment process - spanning strategy design and execution.

Stakeholder Management and Influence are reinforced and amplified through the ways in which the IS strategy is communicated. Strategic communication and narrative framing become crucial tools for securing enduring buy-in and translating alignment into sustained commitment and value realisation.

5.2.5.3.2.5 Strategic Communication and Framing

Strategic Communication and Framing reflects the role of Executive Managers as architects of the narrative for the strategic alignment process. This domain involves translating complex technical and strategic concepts into messages that are accessible, compelling, and relevant to both technical and non-technical audiences. Executive Managers ensure that the language of the IS strategy is free from unnecessary jargon, that its key messages are concise and memorable, and that its visual presentation is coherent and professional. A recurring theme across the three case study organisations is the role of Executive Managers in ensuring that the relevant IS artefacts are documented in a manner that is simple, clear, and easily understandable for both technical and non-technical stakeholders. This clarity is seen as critical not only for communicating the IS strategy's intent but also for securing buy-in and ensuring strategic alignment across the organisation.

Framing goes beyond simplification; it involves shaping the overall story of the IS strategy so that it resonates with different audiences. For senior executives and board members, the emphasis may be on organisational value and risk mitigation; for operational teams, the focus may be on tangible benefits and practical implications. In some cases, this framing involves repositioning the strategy from a technology-centric to a business-centric narrative, thereby aligning it more closely with organisational

priorities. By controlling the communicative framing, Executive Managers ensure that the strategy is not only understood but also embraced across the organisation.

Table 34 - Chain of Evidence - Strategic Communication and Framing

Axial Code	Context	Examples
Simplicity and Clarity	Simplicity and clarity is seen as critical not only for communicating the IS strategy's intent but also for securing buy-in and ensuring alignment across the organisation.	"We kind of we went through kind of page by page kind of looked for comments and there was all of the members of the senior management team but it would have commented on various different aspects of the strategy" (W6) "Ultimately working with that team to get it over the line in terms of a completed strategy, the errors that I'd be particularly hard on will be about summarising the strategy up to an executive level" (G8) "As an executive I need simplicity of checking in, like tell me about where we are now and describe me to make sure that I fully understand that the current position and make sure I fully understand where it is that we want to get to and why is that a good thing for creating the roadmap" (G9)
	Executive Managers act as filters for ambiguous language and translators of complexity into clear, concise and simple language. The call for simplicity and clarity is also coupled with Executive Managers' need to believe in and have confidence in the proposed strategy and relevant IS artefacts.	"They were kind of articulating in the sub-strategies around making sure that they were clear. Where there was ambiguity, I was challenging some of the language there to say well, does this mean this? Or doesn't mean this? you know kind of a thing" (W8) "...that ability to simplify it and explain it in simple terms that people understand is one of the things that I think I bring to this... clear, concise and simple to understand if you can get that right, you know you right, you know that makes such a difference because you'll get people going and get it. I actually get what they're doing here, whereas if it's a complex, difficult to understand, you're far more likely to struggle" (G9) "That the way you're telling me you're going to do it is going to work. And if I have that belief, yeah. They've taught this through. I like their methods. Their method is going to get them there. It feels instinctively, right. I signed it off because I think they're on the right path... And if I don't believe it'll work, I'll rarely sign it off. I say you need to convince me that I'm wrong, that there is, you know, you need to tell me Why this? How my doubts about your approach will work...So I don't know that's kind of the one that intellectually I need to. I need to believe that the efforts that's going to go into this is going to yield the results..." (G9)
Narrative Framing	This drive for clarity often involves returning to the basics of telling a story where the objectives, planned results and value are told in ways that stakeholders could grasp and appreciate. Executive Managers provide simplicity and clarity by asking the right questions to frame a simple and clear narrative for the IS Strategy and its artefacts.	"She was dreading the ICT strategy because she thought it was going to be very technical and they wouldn't be able to understand it. But they were very surprised and very happy. It was very customer and very business focused and that they could understand exactly what we were trying to achieve. So that was good feedback as that was what we were trying to achieve. We were trying to make an ICT strategy that wasn't technically focused and that was something that we could speak to business people" (W3) "Sometimes strategy documents can say a hell of a lot, but it'll say nothing at the same time... It has to be understandable and digestible and tangible to people who are going to read it, it has to be clear to the person and their business function on what does this actually mean for me. what I tried to do was align it and translate it and word it" (W10) "I kept on pushing it back. So What? So what does this mean for the business? What is the end user experience so more often than not we deliver capability and change, we walk away but people rarely stop to think about the stakeholder or customer impact so that end user experience piece was really important that I tried to bring to every question. So why? Why, why, why are we doing this and then?" (W11)

The importance of being able to have an in-depth business conversation about IS Strategy artefacts at the board level represents the benefit of using a clear, concise and simple language that allows access to non-technical audiences. Executive Managers put intentional effort to craft a narrative that can be understood by both IS and business functions of the organisation. This drive for clarity often involves returning to the basics of telling a story where the objectives, planned results and value are told in ways that stakeholders could grasp and appreciate.

Executive Managers are seen as acting as filters for ambiguous language included in the IS artefacts. One aspect of this role was distilling complex strategies into concise, executive-level summaries and easy to articulate straightforward key messages. Executive Managers provide simplicity and clarity by asking the right questions to frame a simple and clear narrative for the IS artefacts. The effectiveness of communication and framing is ultimately realised when it contributes to a culture that supports the strategy and strengthens the capabilities needed to deliver it. This leads directly into the domain of capability and culture building.

5.2.5.3.2.6 Capability and Culture Building

Capability and Culture Building captures the human and cultural dimension of Executive Managers' strategic enablement role. Beyond the formal tasks of IS strategy design and strategy execution throughout the strategic alignment process, Executive Managers also invest in developing the skills, confidence, and motivation of the individuals and teams responsible for designing and delivering the strategy. This is achieved through mentorship, coaching, and the modelling of behaviours that reflect strategic commitment and leadership.

Executive Managers emphasise the importance of bringing enthusiasm and passion to the strategic alignment process, not merely as observers but as active collaborators. Executive Managers contribute to the strategic alignment process by instilling knowledge, experience, enthusiasm, passion, and motivational energy, which help sustain momentum, foster engagement, and reinforce commitment across teams.

Personal engagement with the strategic alignment process is also a source of intrinsic motivation for some of the Executive Managers deriving satisfaction from simplifying complex ideas contributing to their enjoyment and continuous involvement. This reflects a deeper cognitive and emotional investment in the process, which positively influence team dynamics and strategic outcomes. Motivation is also expressed through a delivery-oriented mindset, where executives emphasise the importance of keeping strategies "alive" - advocating for a continuous delivery focus and tactical engagement to bring strategic ambitions to life.

Table 35 - Chain of Evidence - Capability and Culture Building

Axial Code	Context	Examples
Enthusiasm, Passion and Motivation	Executive Manager's involvement goes beyond formal leadership and strategic oversight, extending into emotional and cultural dimensions of change leadership. This motivational leadership is closely tied to clarity and simplicity, suggesting that when strategic direction is well-articulated, it becomes easier to inspire others.	"...Enthusiastic support. Because if I believe it, and have been involved in the creation of where we want to get to and my team have come on that journey with me and we know where we're going to go. This huge buy in and enthusiasm and energy and commitment and I think that's one of the things again that I like to think that I bring to these things is not only clarity and simplicity, but also a little bit of energy and passion. And let's get there and let's get there together as opposed to just standing back and saying, I'm telling you, I want you to get there. It's about collaboration..." (G9) "I would like to think collectively, it's more of a delivery arm and tactical operational approach to bring a strategy to life. So most certainly be too hands on whereby I'd be very engaged at a granular level. And I do think the sub strategy piece is so important in that. If as an organisation we pull together a macro strategy, you're not going to achieve the ambitions and objectives of that without the sub strategies" (W11)
	Executive Managers' personal engagement with the strategic alignment process fosters intrinsic motivation, driven by the satisfaction of simplifying complexity. This deep cognitive and emotional investment enhances team dynamics and strategic outcomes. Their motivation is also reflected in a delivery-oriented mindset, emphasising the need to keep strategies active through continuous execution and tactical involvement to realise strategic objectives.	"...If I get mentally stimulated. I'm usually happy because I'm there thinking about stuff and I'm going oh I need to work that out... If I'm able to explain this in a very simple way, I get a big kick out of that as well, which is why I kind of enjoy a lot of strategy type of projects" (G9) "I believe as an organisation it's about how we can try and maintain that opportunity to keep our strategy and sub strategies alive and make sure that they don't form on a shelf and gather dust so that delivery ambition and that delivery focus was a clear piece of feedback that I would have shared with the senior management team" (W11)
Professional Development	Executive Managers provide informal coaching that helps individuals operate more effectively within complex organisational dynamics. Such moments are seen as rare and instructive, reinforcing the importance of executive presence and strategic articulation. Mentorship was further evident in the way Executive Managers challenged thinking and coached teams through the strategic alignment process.	"Like one of the things that I find are very useful for is that they typically know somebody who's got that high in the organization will have a very good feel for. What the politics of the organization are and who you need to speak to or what approach you might take to particular individual and they'll often give that insight which enables me to be more effective" (E12) "First of all, insights into the way that they are thinking. The challenges that they have. What's in their mind, what is important to them. And I suppose it's giving you an insight as to what it takes to kind of operate one level up. It therefore helped me just in the job in terms of knowing where to focus and where to maybe prioritise. But even just from a personal level, I learn from them and see where they're effective and how they communicate and what way that the executive team tend to operate so that I can" (E12)
	Executive Managers serve as role models, demonstrating composure, clarity, and influence. Observing how senior leaders communicate and respond to challenges provide learning opportunities for others. This dual function of critique and guidance help elevate strategic literacy among participants. Professional development is also embedded in accountability structures, where team members who contributed to strategy formulation are subsequently entrusted with delivery responsibilities.	"He was extremely diligent, he reads everything right, but nothing ever phases him. ...So I think for me personally, I think that's a good role model... to just witness that because you don't see that too often on a day-to-day. So when you do get to see it, you should definitely sit up and learn" (W14) "It is all about coaching, mentoring, challenging positions, challenging the thinking I suppose, making sure that there's a proper consideration to a lot of the different elements that impact the strategy. This is to provide healthy challenge, but also to educate them on the important aspects of developing a strategy" (G9) "...it is endemic as many technical oriented resources including architects do not consider the executive or the upward executive messaging. They are technically focused, and require constant help to pull the required message up and make it relevant, whether it is to the director level or to a board level. This is a kind of skill that comes with time and experience and seniority, but very, very few people consider this at the outset, I was also guilty of this point earlier in my career" (G7) "There's an accountability aspect. I have now agreement to say well, that's the way we're moving now, I then assign project delivery responsibility to the team members who worked in the development of the strategy recommendations, this provides further development in their professional careers, and definitely in their next strategy definition project" (G8)

Executive Managers' provision of enthusiasm, passion, and motivation into the strategic alignment process fosters collaborative energy and shared ownership, drive intellectual curiosity, opportunities for growth and enjoyment of strategy work, and sustain momentum to bring strategies into life with successful execution.

Executive Managers' contributions to professional development during the strategic alignment process include providing political navigation guidance to enhance organisational effectiveness, offering exposure to executive-level thinking and strategic prioritisation, sharing knowledge, delivering coaching, mentoring, and constructive challenge to broaden perspectives, developing upward communication skills critical for senior-level roles, creating career development opportunities through accountability and delivery ownership, and acting as role models for professional behaviour, composure, and credibility. Executive Managers' involvement extends beyond oversight and governance, providing professional development through exposure to executive-level thinking, strategic communication, and organisational navigation.

5.2.5.3.2.7 Interim Conclusion on the Analysis of "Inputs"

The proposed theoretical framework, as outlined in Section 5.3, developed from this study positions Executive Managers' contributions to strategic alignment process as

a dynamic, iterative cycle of Strategic Enablement. The six central themes are identified within the **Strategic Enablement Cycle** - Strategic Direction, Governance and Conflict Resolution; Strategic Refinement and Boundary Setting; Financial Alignment; Stakeholder Management and Influence; Strategic Communication and Framing; and Capability and Culture Building - do not exist in isolation. Instead, they operate as interdependent mechanisms that continuously shape and reshape the trajectory of the strategic alignment process throughout its phases and stages.

The strategic alignment process involves *Strategic Direction, Governance and Conflict Resolution*, where Executive Managers define the overarching vision, boundaries, and priorities for the IS strategy design and strategy execution. At this point, they are not only setting the “North Star” but also establishing the governance mechanisms through which strategic decisions will be made and enforced. Throughout the process, competing demands and divergent interests often surface, requiring the exercise of conflict resolution. By mediating between these conflicting pressures and anchoring decisions in organisational objectives, Executive Managers create a coherent and legitimate strategic foundation on which further work can build.

However, setting an initial direction is not enough to ensure success. As the strategic alignment process progresses throughout its phases and stages, *Strategic Refinement and Boundary Setting* becomes critical. Here, Executive Managers challenge assumptions, test feasibility, and ensure that the strategy remains within its intended scope. The refinement process is iterative, with feedback from both internal analysis and stakeholder engagement prompting adjustments to proposals. Boundary enforcement ensures that the strategy design does not become diluted by operational distractions or overextended into areas beyond its remit. In practice, this refinement work loops back to governance, prompting re-prioritisation or clarification of direction when weaknesses, inconsistencies, or risks are identified.

Alongside refinement, *Financial Alignment* acts as a vital reality check. Strategic ambition must be reconciled with financial viability and the organisation’s funding framework. Executive Managers interrogate cost estimates, challenge value propositions, and align initiatives with budget cycles and funding availability. This is not a one-off stage; financial considerations continuously feed into both governance and refinement activities. For example, a proposal that initially appears strategically sound

may be delayed, re-scoped, or reprioritised when funding constraints are identified. Conversely, a compelling financial case can elevate the priority of an initiative within governance discussions.

Even when a strategy is strategically coherent and financially defensible, it cannot progress without the support of those who will approve, resource, and implement it. This is where *Stakeholder Management and Influence* becomes central. Executive Managers engage with a wide range of stakeholders - from board members to operational managers - to build understanding, address concerns, and secure buy-in. This engagement is both formal, through governance processes, and informal, through relationship-building and political navigation. Importantly, the work of alignment is shaped by the preceding domains: a well-refined strategy with strong financial justification is easier to champion, while stakeholder concerns can trigger further refinement or reconsideration of priorities.

The success of alignment efforts depends heavily on *Strategic Communication and Framing*. Effective communication ensures that the strategy's purpose, benefits, and implications are understood by diverse audiences. Executive Managers tailor messages to reflect the priorities of different groups, shifting emphasis between business value, risk mitigation, operational impact, or innovation potential. Framing is not static; it evolves in response to stakeholder feedback, governance requirements, and emerging organisational narratives. In this way, communication and alignment form a mutually reinforcing loop: clearer, more compelling messaging strengthens stakeholder buy-in, and stakeholder engagement, in turn, informs further refinement of the message.

Underlying and sustaining all these domains is *Capability and Culture Building*. Executive Managers recognise that a strategy's success depends not only on its content and approval but also on the organisation's ability to execute it. Throughout the process, they mentor individuals, develop skills, and foster a culture that values strategic thinking, collaboration, and disciplined delivery. This investment in people and culture has an amplifying effect as it improves the quality of contributions to governance, refinement, financial analysis, alignment, and communication in the current cycle, while also raising the organisation's strategic maturity for future cycles. Capability building thus represents a long-term reinforcing loop in the process theory, feeding forward into the next iteration of strategic alignment work.

The following diagram attempts to illustrate this complexity and interconnectedness among these domains. The relationships between these domains are complex and reciprocal.

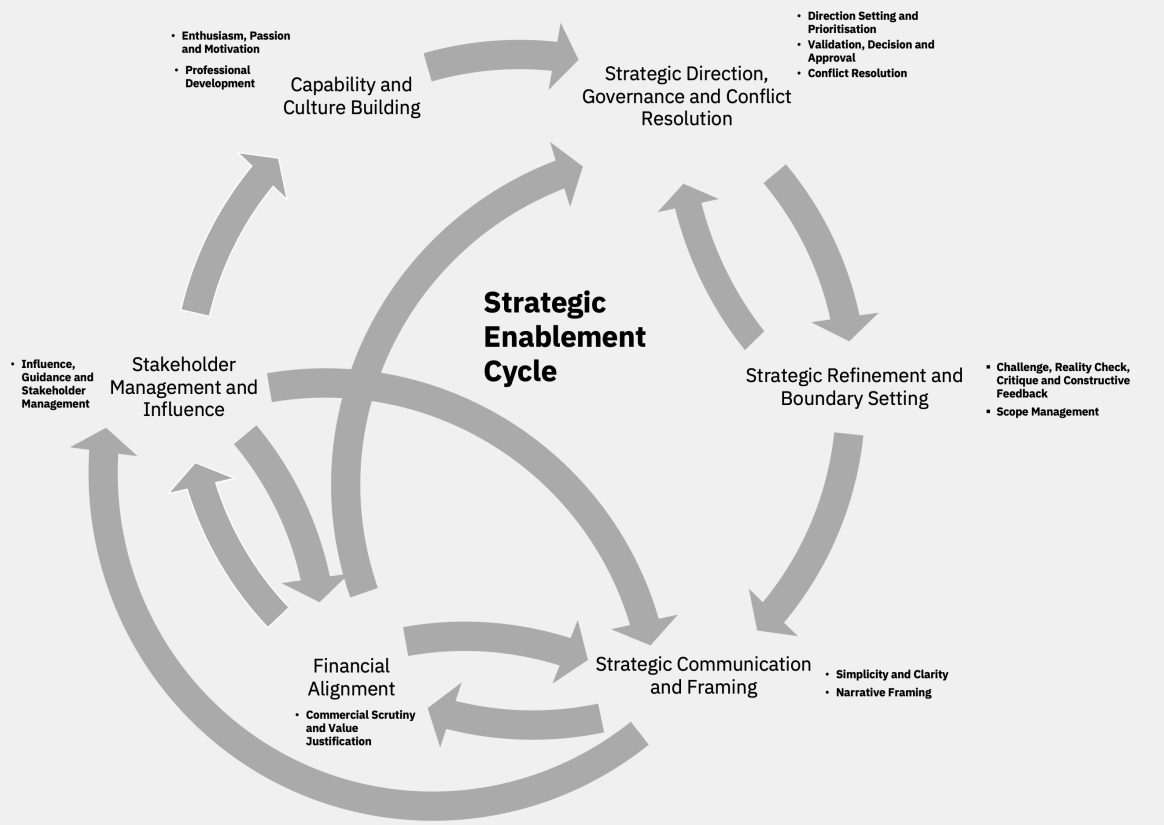


Figure 89 - Strategic Enablement Cycle

Strategic Direction Governance and Conflict Resolution influences *Strategic Refinement and Boundary Setting*, which feeds back into *Strategic Direction Governance and Conflict Resolution*; *Financial Alignment* constrains and enables both *Strategic Direction Governance and Conflict Resolution* and *Strategic Refinement and Boundary Setting*; *Stakeholder Management and Influence* depends on, and feeds into, both *Strategic Communication and Framing* and *Financial Alignment*; *Strategic Communication and Framing* shapes *Financial Alignment* and is shaped by it in turn; *Capability and Culture Building* enhances the functioning of all other domains over time. These interactions are not linear but cyclical, with multiple feedback loops ensuring that learning, adaptation, and recalibration occur throughout the strategy lifecycle.

In summary, this research reveals that the input and contribution of Executive Managers to strategic alignment process are best understood as an ongoing cycle of strategic enablement. This cycle is driven by interdependent domains, sustained by

feedback loops, and shaped by a temporal rhythm within the strategic alignment work that reflects the evolving demands of the strategic alignment process. It is through this dynamic interplay - rather than through isolated interventions - that Executive Managers ensure the IS strategy remains strategically sound, business aligned, financially viable, politically supported, clearly communicated, and organisationally executable.

5.2.5.3.3 Findings of Analysis on "Outputs" Gained by Executive Managers

The nature of any engagement is complex. This section presents the outcome of the selective coding and theoretical integration as outlined in Section 5.2.5.3.1, where the core dimensions of strategic gain ("outputs") experienced by Executive Managers were identified and integrated. Through this process, the original eight axial codes were synthesised into three selective codes, each representing a distinct but interdependent domain of Executive Managers' gains.

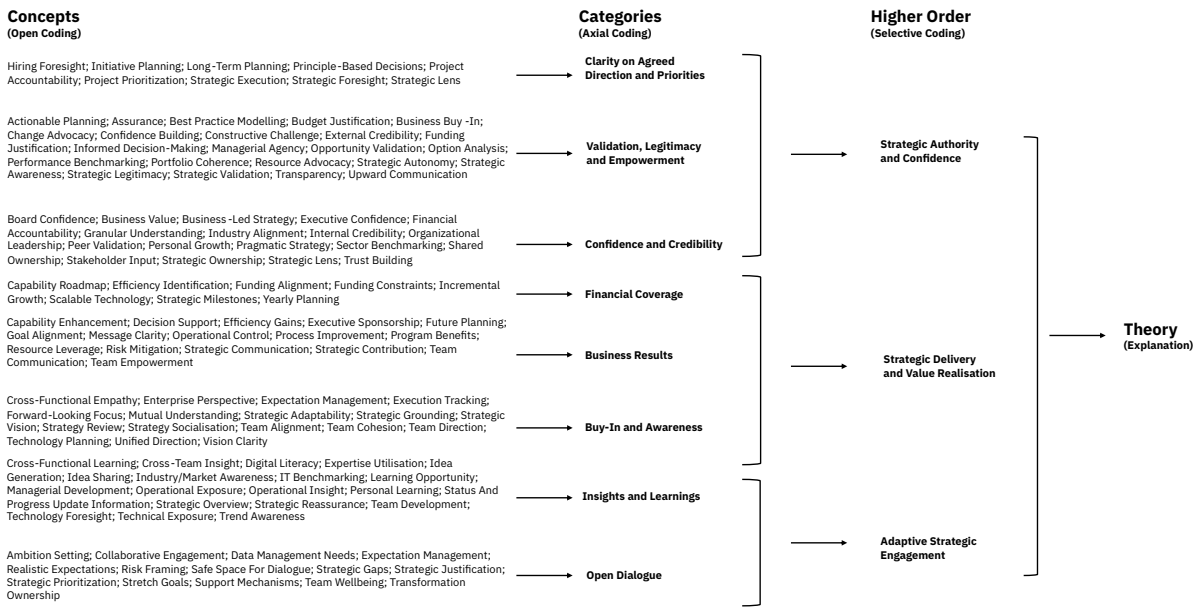


Figure 90 - The Progress of Theoretical Coding from Concepts to Theory (Outputs Gained by Executive Managers)

The interim conclusions (in Section 5.2.5.3.3.4) outlined after the introduction of three central themes not only clarify the substance of each domain but also lay the groundwork for the subsequent revision on the conceptual framework, which explores how these domains interact dynamically through causal mechanisms, feedback loops, and temporal sequencing within the IS strategic alignment process.

5.2.5.3.3.1 Adaptive Strategic Engagement

Adaptive Strategic Engagement represents the relational and cognitive foundation of Executive Manager involvement in the strategic alignment process. This dimension captures the ways in which executives participate in structured and informal engagement activities - including workshops, deep-dive sessions, steering committees, joint planning sessions, and cross-functional dialogues - that expose them to new perspectives, industry trends, technology capabilities, and peer practices.

Executive Managers not only receive comprehensive update on the status of engagement activities and detailed analysis and insights on the operations and plans, but also gain insights and foster continuous learning across technical, operational, and strategic domains. Executive Managers receive challenge from their peers on their personal use (i.e. lead by example) and adoption of the digital technologies introduced to enable new ways of working. Executive Managers receive different insights, learn more about new ways of working and enabling new technologies in the industry and their potential impact on their teams and business operations.

Table 36 - Chain of Evidence - Adaptive Strategic Engagement

Axial Code	Context	Examples
Insights and Learnings	The learnings were not limited to formal sessions; it extended into peer interactions and cross-functional exchanges, where Executive Managers gained knowledge from architects and strategy facilitators, even those not traditionally involved in strategic planning.	"They learn from us, because we're very much focused on bringing them digital technologies and tools... just making them aware of what else is going on both around and within the organisation... within the industry and the learning that we get and showing them those options and that broadens their horizon or broadens their thinking as well in turn allows them or enables them to be better managers..." (E6) "...they probably get more out because they're more informed coming out of it, you know, they know where things are at" (E10). "It gave me fantastic insight into what the where our technologies are going, how the business is growing, how the business is using technology to help it to grow... It is essential for me to keep ahead of that game, you know, to understand where the cloud is going, understand where OCI is going, understand where Azure going and you know to understand all that... it keeps me abreast of all that goes on" (W9)
	The engagement encouraged organizational learning by allowing leaders to reflect on their assumptions, ask exploratory and foundational questions, engage with unfamiliar domains and granular operational realities.	"I get the benefit of the guys expertise in particular areas as well. We have some really good and strong architects with good experience even though as I said earlier like part of my role is to guide them through the strategy process, not a lot of them would have operated in strategy development, but they know their stuff and I learn from them" (G7) "I would not be anywhere near as close to the granularity of the day-to-day operations as the leadership team was when I stepped in, so it really gave me an opportunity to ask those silly questions and to be more hands on" (W11)
	Strategic briefings on topics such as operational and security technologies served as educational touchpoints to expand their technical and contextual knowledge, helping executives connect strategic initiatives to market trends and internal priorities, while also enhancing their credibility and influence. The process also supported comparative learning, as participants benchmarked their IS landscape against peer utilities, where comparisons helped Executive Managers reassess their own IS maturity and gain reassurance and confidence in their strategic positioning.	"They did get briefings on what the future of gas management and new security technologies are or what the things in the business strategy mean for gas management and operations in the context of new trends in Operations Technology market. These briefing provided support for some of the key issues to be highlighted and key ideas validated to a more senior audience, which gave them additional credibility and leverage in terms of getting funding" (G5) "Compared to some of the our peer water companies where we're not as far behind as we think we are. And in some areas, we might actually be ahead as soon as what describe ourselves as we've got quite a clean estate from applications and like it's getting more complicated every day. But we're generally clean like I think if we look to some of the UK utilities there, they've got systems attached onto systems where plug-ins on top of plug-ins and they probably don't have a clear view on what their IT architecture landscape looks like whereas I think we do, we do have quite a good view. So I kind of learned we're not in a bad place IT wise" (W12)
Open Dialogue	The dialogues where Executive Managers were present were not limited to confirming alignment; they also included candid discussions about ambition, feasibility, and risk - there was openness in admitting that not all targets might be achieved. This openness extended to critical reflection on the strategy's practical utility, with one executive expressing concerns, voiced frustrations and articulated specific needs.	"...And I think that's what really kind of engaged the senior stakeholders because they were in a safe space where they could ask questions about the transformation and what it meant. And, you know, they didn't have all the answers either and I didn't have all the answers. So we were kind of going on a bit of a journey together and then, and so we got our business done as in the governance, but we also were able to have room for those informal conversations on that monthly meeting" (E7) "...so it really gave me an opportunity to ask those silly questions..." (W11) "...This is where we want to go to and this is where we want to try to get to over five years, will we achieve it? Potentially, or potentially not" (W4) "We also put a lens around kind of risk as well. What's the risk of not having a strategy, not doing these things? And so it was good to talk to those as well" (W12) "We certainly ended up talking too much on that and we kind of said look we're agreed in principle with the strategy albeit it's not giving us anything that we can use here from making a better perspective you know. We've never deleted anything we don't. We've loads of unclassified data, we've loads of data coming from local authorities. We've SharePoint, we've Alfresco and we've all this kind of madness, I need data organised better. I need people to take ownership of their data. I need classification of data. These are things I want" (W8)

Executive Managers receive insights on what other organisations are doing, and this gives them clarity on their own performance against the others. The strategic

alignment process cultivates a multi-dimensional learning experience combining exposure, reflection, collaboration and growth that contributes to the development of more informed, adaptive, and strategically and technologically literate Executive Managers. The strategic alignment process creates a safe-space for Executive Managers to engage in open, reflective, and often informal dialogue about the direction, feasibility, and implications of strategic initiatives. Rather than adhering strictly to formal governance structures, some forums such as steering meetings, were intentionally designed to blend formal oversight with informal, conversational spaces. This approach enabled executives to ask questions, reflect, share and validate understanding and express uncertainties in a safe environment.

While engagement with Executive Managers cannot address every question or resolve all organisational issues, but they play a crucial role in keeping Executive Managers informed about the operational matters that must be dealt with during strategy execution phase. These examples illustrate that the strategy engagement was not merely a top-down communication exercise but a two-way, iterative process that encouraged honesty, challenge, and shared sense-making. Collectively, these insights highlight how open dialogue within strategic engagement fosters trust, realism, and co-ownership, enabling Executive Managers to navigate complexity with greater confidence and cohesion. Such open dialogue was instrumental in building trust and fostering alignment.

The Adaptive Strategic Engagement theme reflects the mechanisms of shared understanding formation, strategic literacy development, and adaptive mindset cultivation. Shared understanding is built through repeated interactions that foster trust, mutual respect, and the dismantling of silos. Strategic literacy emerges as executives gain a deeper understanding of organisational priorities, IS capabilities, and the broader business–technology context. Adaptive mindset is cultivated through safe spaces for candid discussion, where executives can question assumptions, explore options, and respond flexibly to evolving circumstances.

The outcomes of this engagement include co-created clarity on strategic direction, stronger interpersonal networks between IS and business functions, and an increased willingness to engage in subsequent strategic processes. These outcomes create the

foundational conditions for the strategic authority and confidence required to ensure strategic alignment.

5.2.5.3.3.2 Strategic Authority and Confidence

Strategic Authority and Confidence builds directly on the relational and cognitive foundations created through engagement. This dimension becomes most visible when the diverse inputs from the executive engagement are synthesised into a coherent and approved IS strategy, often formalised in the form of strategic artefacts such as roadmaps, principles, and investment plans.

Irrespective of their level of involvement in the strategic alignment process, Executive Managers are provided with a clear direction of business strategy, priorities and role of the technology to enable the business strategy execution once the strategy is fully approved. Specifically for Executive Managers in IS domain, this process was very valuable to better understand the business that they are responsible for supporting and enabling. Executive Managers in business domains also improve their understanding of wider business, technology and industry context during these episodes while being fully informed about the technology capabilities that are available in the market or will be delivered and deployed by the IS function for their business function.

Strategic alignment process helps participants including Executive Managers orient themselves within the broader enterprise context, enabling more informed decision-making and alignment of departmental plans with organisational priorities. Executive Managers felt that the strategy provided an agreed direction and sense of prioritisation that clarified where the organisation is heading, helped them articulate strategic direction to their teams, enabled them to align their planning and execution with enterprise goals and reduced ambiguity and improved strategic confidence.

Having successful engagement with the Executive Managers during the strategic alignment process empowers the content of the relevant IS artifacts (across design and execution phases) and its use in the overall strategic alignment work. IS artifacts act as a contract between business and IS outlining how technology will support business functions. Executive Managers use the agreed IS artifacts to make decisions, resolve conflicts and competing requirements during the strategy execution phase to enforce

strategic alignment. Executive Managers utilise the principles and guidelines in decision-making and annual portfolio planning processes. Executive Managers utilise agreed strategy to drive hiring and procurement requirements to meet the skills and capability requirements needed to deliver on the strategy and ensure strategic alignment.

The data revealed a shared recognition among Executive Managers of the critical importance of having an aligned and approved IS Strategy - one that anticipates future needs and guides decision-making across multi-year horizons to maintain strategic alignment. The IS strategy serves as a foundational reference point - described metaphorically as a “North Star” or “Gold” - that informs IS investment prioritisation, operational planning, and resource allocation. Furthermore, having an approved and documented IS strategy enables a shift from reactive, business-as-usual operations to proactive identification of future initiatives, even in the absence of immediate funding. Strategic principles derived from the episodes are used to streamline internal discussions and enhance accountability, reducing ambiguity and improving decision-making efficiency.

Table 37 - Chain of Evidence - Clarity, Validation, Legitimacy and Empowerment

Axial Code	Context	Examples
Clarity on Agreed Direction and Priorities	These insights underscore the strategic alignment process's integrative function across planning, prioritisation, and organisational coherence.	“That's what I would have got out of the engagement as I kind wanted to see, how we could use the strategy in terms of driving the direction now and that's one of the things we do when we look at the projects, we kind of decide in the portfolio every year...” (W6) “IT application strategy engagement also helped to socialise what's going to happen in IT within the IT organisation. You can imagine that there are different voices and different views, this process also giving him a kind of agreed objectives or acceptance of the strategy across the wider team...” (G6) “Workshops helped me to understand what my company was trying to do, they were helping us to build a shared understanding of possible futures... it was different than what I have seen previously in my working experience in the last 37 years at ESB Networks” (E4) “...Having a direction and strategy is gold, you know, it is gold because you know, while finance work on an annual basis and a year on year end that you know that we have to work on a 5 year horizon constantly looking forward. So we need to know what's coming in 2027-28-29 you know we can't do what finance do and just focus on the next month ahead right” (W9). “I suppose from my perspective, while I got out of it was the kind of the key principles that were strategically aligning. So if we're having a discussion about something silly, we say, look, our principle here is that it's this. So this is what we're doing. You know, unless there's a compelling reason not to, you know, and I can take the oxygen out of a lot of pointless conversations. So, you know... what I'll be hoping to do is to use these principles to hold projects to account going forward” (W8)
Validation, Legitimacy and Empowerment	For example, one executive described how financial analysis provided a credible basis for explaining operational expenditure to peers, contrasting this with the vulnerability of relying solely on personal judgment. Similarly, benchmarking against international best practices was cited as a source of validation, reinforcing the organization's strategic positioning within the sector. Board-level feedback and constructive challenge further contributed to a sense of assurance and reinforced the legitimacy of ongoing initiatives. The ability to reference a collectively approved roadmap was described as worth its weight in gold offering a powerful narrative for justifying decisions and securing support.	“...This process gave him the help of an external voice in explaining back to other executives where the Opex spend was as it was validated with a detailed analysis coming from Finance team, as opposed to just something he'd made up himself...” (G4) “...it gave that oversight that what we were delivering was setting the standard or if not in line with some of the best water treatment companies out there, not just in Europe but in the US as well” (W14) “...I think they [Board] get assurance. So they say, great job. Keep it going. Let us know if you need any support and they give me a bit of challenge. You know, they will come back and sort of say it was ok, but I've seen something else here. How well protected are we, is there another task we should be doing?...” (G9) “We've got some very positive feedback in the Board meeting. It opens the gates...” (W12) “Head of IT got the confidence around alignments to his objectives and his Director's objectives and the board's objectives on top of that” (W13) “... like the ability to be able to say I'm doing this because it's part of my strategic road map and that's worth its weight in gold and to be able to point to a time and place where it was signed off is very powerful” (W12)
	Empowerment emerged as a central theme in relation to agency, autonomy, and strategic ownership. Through active involvement in current state analysis and initiative development, IS managers reported gaining control over their strategic direction and the ability to influence outcomes. Executives described how the strategy process enabled them to proactively shape their portfolios, secure funding, and resist reactive pressures from the business. This empowerment was both practical - through planning and resource access - and symbolic, affirming their role as drivers of change and progress rather than passive recipients of top-down directives.	“the process of engaging all of the IT managers... gave them some agency over, some control on managing their destiny, and we could claim some glory” (G3) “Engaging with the Powering Ahead Programme provided Executive Managers and their function within the organisation an extra bandwidth to build capabilities for their teams...” (E12) “It gets into a position where IT function can claim to be driving their own destiny or driving their own road map and it protects them from being vulnerable to the winds of the business” (G3) “He gets a plan of things to do to meet his business objectives... so he can say right, we have these business objectives, we have thought about them, and this is how we're going to do it” (G5)

Validation refers to the process through which executive decisions and strategic directions are affirmed, often through data, analysis, and stakeholder feedback. Several

participants emphasised the importance of having their strategic choices substantiated by objective evidence. Legitimacy is constructed through alignment with formal organisational objectives and the institutional endorsement of strategic plans. Executives articulated how coherence with board-level goals and the existence of a signed-off IS strategy provided a foundation for authoritative action. This formal alignment enabled IS function to engage in budgetary and resource discussions with confidence, positioning their initiatives as integral to broader business ambitions.

Empowerment emerged as a central theme in relation to agency, autonomy, and strategic ownership. Through active involvement in current state analysis and initiative development stages of the strategic alignment process, IS managers reported gaining control over their strategic direction and the ability to influence outcomes. Executive Managers gain authority and autonomy as a result of the interplay between validation, legitimacy, and empowerment that they are granted as part of their engagement with the strategic alignment process. Executive Manager engagement contributes to reshaping the relational dynamics between IS and the business functions to enhance the credibility, authority, and agency of IS leaders, enabling them to act with confidence and coherence in pursuit of strategic objectives. Researcher also observed that well-structured strategic alignment process not only produce the relevant IS artifacts and outputs but also foster meaningful shifts in leadership posture and organisational influence.

Table 38 - Chain of Evidence - Confidence and Credibility

Axial Code	Context	Examples
Confidence and Credibility	Several statements highlight how engagement in the strategy process fostered a deeper understanding of the IS landscape, enabling individuals to speak with greater conviction and act with increased certainty. One participant noted the personal and professional value of becoming “deep and granular” in their understanding of the IS environment, suggesting a long-term benefit to their leadership capacity. Others described how involvement in a business-led strategy, rather than a departmentally siloed initiative, enhanced their belief in the relevance and impact of their work. Confidence was also observed in how participants communicated and engaged with others, with one noting a visible shift in language and demeanour that reflected a sense of ownership and enthusiasm. The ability to articulate a coherent IS strategy was seen as enhancing the internal credibility of the IS function.	“At a personal level and a professional level, I have had the opportunity to get so deep and granular and it will most certainly serve me as I move along, not only in a professional level but at a personal level in terms of understanding the wider IT environment” (W11) “You can see that coming across in the language that they use and how they engage with people and there's definitely a level of excitement about there being involved…” (E8) “Definitely at a board level, I felt when we walked away they had a level of confidence and credibility in what we were trying to achieve, whereby there was a piece of trust that was on both parties… Confidence, credibility, buy in were the three big areas when I left the boardroom” (W11) “…by being informed, they have that comfort” (E11) “It is very important for somebody at that level to be able to say I have an application strategy, and I know what I'm doing. This increases the internal credibility of the IT function” (G4) “Definitely at a board level, I felt when we walked away they had a level of confidence and credibility in what we were trying to achieve, whereby there was a piece of trust that was on both parties… Confidence, credibility, buy in were the three big areas when I left the boardroom”, (W11) “…when they started to see the fruits of the labourers clearly, then they started to be more interested, and I suppose it gives them more kudos as well” (E12)

Confidence is expressed as a growing sense of self-assurance, clarity, and professional growth among participants. Confidence was also observed in how participants communicated and engaged with others, with one noting a visible shift in language and demeanour that reflected a sense of ownership and enthusiasm.

Credibility, in contrast, is constructed through validation and the perception of trustworthiness and competence by others. Credibility was also linked to the collective nature of the work, ensuring that strategies were pragmatic, deliverable, and aligned with business value. Importantly, credibility was not only earned within the IS function but also extended to the broader organisation, with participants reporting increased trust and buy-in from senior stakeholders and board members.

Executive Managers receive confidence, comfort and credibility that they have a structured, aligned, well-thought and compliant strategy and plan to support business objectives. Combination of assurance from their teams and also self-assurance by probing the details of the strategy helps Executive Managers to build confidence and trust on the content. Executive Managers gain confidence that is cultivated through deep involvement, learning, and alignment with broader business goals, while credibility is reinforced through transparency, evidence-based planning, and stakeholder trust.

Grounded in the axial codes of Clarity on Agreed Direction and Priorities; Validation, Legitimacy, Empowerment; and Confidence and Credibility, this dimension – Strategic Authority and Confidence - captures how executives gain legitimisation through formal endorsement by internal governance bodies, validation from evidence-based analysis and benchmarking, and confidence from reduced ambiguity and increased ownership of strategic direction. The consequences of this authority include the ability to articulate strategy with conviction to multiple audiences, greater influence in securing resources and shaping organisational priorities, and a stronger leadership posture underpinned by credibility. The Strategic Authority and Confidence equips Executive Managers to mobilise resources, align teams, and prioritise effectively, setting the stage for delivery.

5.2.5.3.3.3 Strategic Delivery and Value Realisation

Strategic Delivery and Value Realisation is the dimension in which strategic intent is operationalised into tangible outcomes – results of the strategy execution starts to deliver value to the stakeholders. The Strategic Delivery and Value Realisation dimension translates Strategic Authority and Confidence into tangible outcomes and this has a reinforcing impact on the Strategic Enablement Cycle (i.e. development of

current/previous IS implementation success as an antecedent). This dimension becomes dominant during the execution phase, where initiatives are implemented, IS operations are executed, resources deployed, and value delivered. This dimension requires alignment between strategic priorities and delivery capabilities, as well as access to financial coverage and committed resources.

Executive Managers gain buy-in and awareness in the form of shared understanding and collective commitment ensuring that all stakeholders understand the approved IS strategy and the direction of travel and most importantly, support the strategy execution in a coordinated manner. Unlike the key categories of validation, legitimacy, and empowerment, which focus on how individuals and teams gain authority, recognition, and agency through formal structures and reinforcement, Buy-in and Awareness emphasise the collective psychological and communicative processes that foster shared understanding and commitment. Similarly, while confidence and credibility are centred on individual assurance and interpersonal trust, Buy-in and Awareness are more concerned with group-level alignment, transparency, and the socialisation of strategic intent across diverse teams - encompassing the understanding of strategic goals, direction, and rationale.

Executive Managers gain buy-in from their teams on the programme of work and direction of travel for their function. This also allows wider awareness across the organisation on how technology will support business objectives. Buy-in and awareness serve as the conceptual gel between strategic vision and operational execution ensuring that stakeholders not only comprehend the direction of travel but also feel invested in its success and act upon it. The findings suggest that gaining buy-in and awareness is a foundational outcome of strategic engagement. Buy-in is cultivated through inclusive dialogue, iterative planning, and collective endorsement, while awareness is fostered through transparency, strategic framing, and ongoing communication. Executive Managers gain buy-in and awareness as a result of their engagement with the strategic alignment process ensuring that strategic initiatives are understood, supported, and effectively executed across the business and IS functions.

Table 39 - Chain of Evidence - Strategic Delivery and Value Realisation

Axial Code	Context	Examples
Buy-In and Awareness	Buy-in refers to the active agreement and commitment of stakeholders to a shared strategic direction. Several participants described how the strategy engagement process created a space for collective endorsement of the roadmap fostering a sense of unity and shared purpose. Awareness also extended to understanding the enterprise-level picture, helping individuals move beyond team-specific concerns.	"...they all have to sit down and nod their heads and say yes, we agree with this road map and that's in two ways, They agree what's going to happen in their area, but they also understand the wider initiatives across the IT function. It is helping to break down our silos a bit there" (G6) "I think at the end of the day, the main goal of it was to set a vision of where we want to go and have the North Star to aim for. We can now put it in front of all of our teams and they have no reason or excuse to say, well, we didn't understand what our vision was, where we want to go. So it's documented, it's transparent" (W10) "...however we also told to them that technology is constantly evolving and developing. It's a direction of travel for now, and that may well change... And if things have changed. In other words, some initiatives we've decided not to pursue will be calling that out. And if new ones have come on to the road map because they've bubbled up in terms of business demand" (G7) "We're aligned as much as we can be and that while we're all doing our own things and our own silos that ultimately are feeding into the greater good and it's for a reason and we can always point it out if needs be. I think the wider IT team got a sense that we're all rowing in the same direction." (W13). "We brought them through the strategy, help them to see that the 10,000 foot picture as opposed to just the asset management and the asset piece and say this is where we're going to go as an organisation because people are so focused on their self and their teams and they forget about that enterprise level" (W10)
Financial Coverage	IS Strategy is operationalised through annual planning cycles, where strategic objectives are broken down into actionable financial targets. The incremental approach provides financial coverage by aligning annual budgets with long-term ambitions, making strategic execution more feasible within existing constraints.	"So that that's really important and it's a huge factor in how we decide our sub strategies and where we go next because you know yourself we are very strapped cash wise in it you know what we do get massive envelopes every year but by the time you've carved it all up into the 10 different areas and everybody gets a tiny piece, you know, it's an extremely expensive game of juggling, right, you know" (W9) "So while we don't have the funding to go Big Bang into the North Star Arena, we build a path and we understand what that path is and we understand that if we fund it over the years, it will grow into a capability that will reach that North Star" (W9)
Business Results	Executive Managers noted that the delivery of streamlined processes and consolidated information systems empowered teams to make better decisions and manage their work more effectively. Executive Managers are requested to both "pull" new solutions introduced at a personal level for their daily use and "push" the same solutions to their teams at an organisation level. This clarity and rigour translated into confidence among Executive Managers, who could communicate tested solutions to their teams with assurance.	"they can see the benefits for their teams. So like some of what we're delivering is going to make life easier for their teams. Like the work is going to be coming at them, but it's going to help them to improve the process or have more insight so that they can do better decision making" (E8) "...they're getting that and they're able to go back to their own teams and say, look at this is going to come here. Now, you're not going to be looking in ten different places for this information. It's going to be in the one place for instance. It's been tested, it's been through a rigour, so they can say to their teams that I have confidence in it and this is what I want you to manage it through" (E10) "...Control hub which were able to manage the largest kind of water treatment plants from a remote oversight control perspective. And it also allowed them for key benefits like centralised comms, out to the right individuals in in operations, and it certainly mitigated any health and safety risks from a single point of failure perspective" (W14) "So when they started to see the fruits of the labourers clearly, then they started to be more interested, and I suppose it gives them more kudos as well. If I'm delivering, they are my sponsors, so they will get the benefits of the programme on their business results" (E12) "All of our initiatives should be helping the executives to achieve their KPIs or their goals, objectives. So everything that we do should somehow either directly or indirectly assist them in achieving those. And most of what we do, you can fairly directly link to their objectives. I suppose that's the key thing that they get" (E8)

A critical component of the strategic alignment process is the integration of financial considerations. Among the case study organisations, the activity of evaluating the feasibility and viability of proposed initiatives emerges not only as a mechanism for prioritising strategic options but also as a key expression of financial alignment. This evaluative process provides a substantiated basis for the inclusion - or exclusion - of initiatives and operational services within the overarching IS strategy, ensuring that resource allocation decisions are both strategically justified and financially sustainable.

The strategic alignment process also supports scalable investment planning, particularly in environments with limited financial flexibility. This approach helps manage the "expensive game of juggling" across competing priorities, ensuring that even modest funding allocations contribute to long-term capability development. Participants emphasised the importance of having a multi-year strategic roadmap that informs financial decisions and investment cycles. This approach allows executives to anticipate financial needs and align technology decisions with broader strategic goals. Rather than relying on large, upfront investments, executives described how the strategy enables a phased funding model - building capabilities gradually over time to reach strategic objectives.

By aligning investment decisions with organisational priorities and financial constraints, Executive Managers are better equipped to manage limited resources effectively while maintaining strategic coherence as a result of their engagement in the strategic alignment process. Thus, financial alignment serves as a foundational element that bridges strategic intent with operational execution in IS, while also intersecting with other dimensions of strategic alignment. Notably, it represents a distinct alignment type that is not explicitly identified in much of the existing strategic alignment literature.

Executive Managers drive Commercial Scrutiny and Value Justification as an input to the strategic alignment process, and with the approved IS artifacts, financial coverage is gained for the execution phase of the strategic alignment. The Researcher proposes the concept of financial alignment as outlined in this Chapter as a potential new alignment type to be considered as a theoretical contribution of this thesis. This proposal and its rationale will be further articulated and examined in Chapter 6 of this thesis.

Executive managers achieve tangible business results by enhancing decision-making, aligning initiatives with performance goals, and accelerating capability development as a result of their engagement within the strategic alignment process. As the execution phase of the strategic alignment process begin to materialise, Executive Managers gain recognition and credibility, reinforcing their role in driving business outcomes. Executive Managers receive not only the evidence of expected and/or delivered value and new capabilities to their business operations and teams, but also the benefit of having well thought, comprehensive and structured roadmap and plan of action that will provide business and IS alignment when (and if) executed. Collectively, these insights illustrate how strategic engagement serves not only as a planning tool but as a mechanism for delivering measurable business value across the organisation. This is important for Executive Managers to achieve their personal business objectives that were set annually based on the existing performance management system within the organisation.

Grounded in the axial codes Buy-In and Awareness, Financial Coverage, and Business Results, this dimension reflects mechanisms of executional buy-in, financial alignment, and outcome focus. Executional buy-in involves securing commitment from delivery teams and governance bodies. Financial alignment ensures that funding models and investment cycles match strategic objectives, often through phased funding

approaches. The outcome focus ensures that initiatives deliver measurable business value and contribute directly to performance objectives. The delivery of tangible results reinforces the executive's authority through demonstrated competence and generates new insights that feed directly into the next cycle of strategic alignment process.

5.2.5.3.3.4 Interim Conclusion on the Analysis of "Outputs"

The proposed theoretical framework, as outlined in Section 5.3, positions Executive Managers' gains from their engagement within the strategic alignment process as a dynamic and iterative cycle of Strategic Empowerment, identified as the core category. The three central themes are identified within the **Strategic Empowerment Cycle** as core category - Adaptive Strategic Engagement; Strategic Authority and Confidence; and Strategic Delivery and Value Realisation - do not exist in isolation. Instead, they operate as interdependent mechanisms that continuously shape and reshape the trajectory of the strategic alignment process throughout its phases and stages.

The following diagram attempts to illustrate this complexity and interconnectedness among these themes. The relationships between these domains are complex and reciprocal.



Figure 91 - Strategic Empowerment Cycle

Adaptive Strategic Engagement reinforces the relational trust, shared understanding, and adaptive capacity that underpin *Strategic Authority and Confidence*. *Strategic Authority and Confidence* then strengthens *Strategic Delivery and Value Realisation* by providing Executive Managers with the legitimacy, credibility, and clarity

needed to secure resources and deliver strategy execution phase of the strategic alignment that provides tangible benefits to the business. The outcomes of *Strategic Delivery and Value Realisation* in turn strengthen *Strategic Authority and Confidence* through proven performance based on strategy execution and feed back into engagement by generating new learning, challenges, and priorities. These are not one-way relationships as they are reinforced by feedback loops. *Strategic Delivery and Value Realisation* success enhances *Strategic Authority and Confidence*, authority accelerates *Adaptive Strategic Engagement* consensus in future cycles, and *Adaptive Strategic Engagement* continuously adapts *Strategic Delivery and Value Realisation* priorities in response to changing contexts. The Strategic Empowerment Cycle is therefore self-reinforcing and dynamic.

In summary, the proposed theoretical framework positions the gains of Executive Managers – as a result of their engagement within the strategic alignment process - as integral elements of a dynamic cycle of strategic empowerment. This cycle is propelled by interdependent domains of engagement, reinforced through continuous feedback loops, and shaped by a temporal rhythm that mirrors the evolving nature of strategic alignment work. Rather than a linear process, strategic empowerment emerges as an iterative and adaptive journey, reflecting the shifting demands and complexities of the strategy execution phase of the strategic alignment process. It is through this dynamic interplay - rather than through isolated interventions - that Executive Managers ensure the IS strategy and execution remains strategically sound, business aligned, financially viable, politically supported, clearly communicated, and executed to deliver the committed value.

5.2.6 Preliminary Conclusions on Research Sub-Question 3

The nature of executive engagement in strategic alignment is inherently complex. To unpack this complexity, the Researcher collected data that captures both the input and output dimensions of engagement. As outlined in Section 5.2.5.3, engagement process with Executive Managers were demystified by identifying and articulating the key domains of input (i.e. what Executive Managers contribute during the engagement) and output (i.e. what they gain as a result of their involvement). These insights are drawn

from across three case study organisations, offering a nuanced understanding of how executive engagement unfolds in practice.

This research positions Executive Managers' contributions to strategic alignment process as a dynamic, iterative cycle of Strategic Enablement. The six central themes are identified within the **Strategic Enablement Cycle** - *Strategic Direction, Governance and Conflict Resolution; Strategic Refinement and Boundary Setting; Financial Alignment; Stakeholder Management and Influence; Strategic Communication and Framing; and Capability and Culture Building*. This research also positions Executive Managers' gains from strategic alignment process as a dynamic, iterative cycle of Strategic Empowerment as a core category. The three central themes are identified within the **Strategic Empowerment Cycle** as core category – *Adaptive Strategic Engagement; Strategic Authority and Confidence; and Strategic Delivery and Value Realisation*. These core categories do not exist in isolation. Instead, they operate as interdependent mechanisms that continuously shape and reshape the trajectory of the strategic alignment process throughout its phases and stages.

As a supporting observation drawn from the aforementioned findings of the analysis, the diagram below outlines the **Executive Manager Engagement Cycle** that brings Strategic Enablement and Strategic Empowerment cycles together in an holistic view and outlines the interactions between the mechanisms identified as outlined in sections 5.2.5.3.2.7 and 5.2.5.3.3.4 as part of this research.

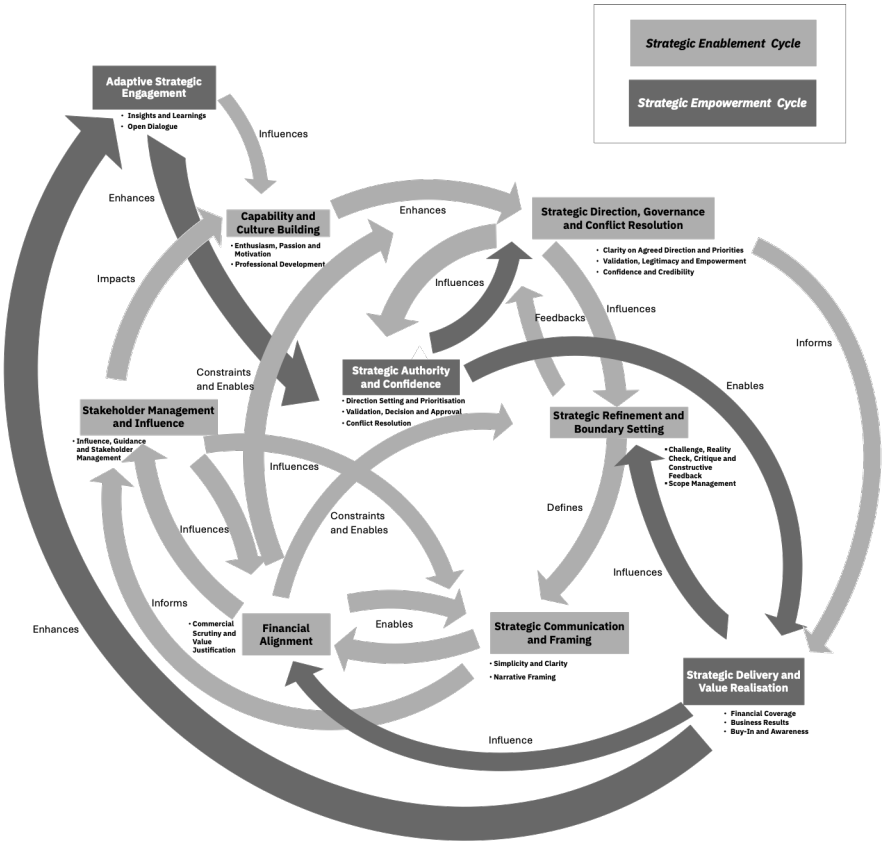


Figure 92 - Mechanisms in Strategic Alignment process enacted by the Engagement with Executive Managers

The Strategic Enablement Cycle focuses on the structural and procedural mechanisms that shape the design, governance, and communication of strategy. It ensures that strategic initiatives are coherent, financially viable, well-communicated, and supported by capable individuals and a conducive culture. These mechanisms provide the strategic scaffolding - direction, legitimacy, and clarity - upon which empowerment can be built. These interactions are not linear but cyclical, with multiple reinforcing feedback loops ensuring that learning, adaptation, and recalibration occur throughout the strategic enablement cycle.

- *Strategic Direction, Governance and Conflict Resolution* influences *Strategic Refinement and Boundary Setting*, which feeds back into *Strategic Direction Governance and Conflict Resolution*.
- *Strategic Refinement and Boundary Setting* defines *Strategic Communication and Framing* which enables *Financial Alignment.*

- *Financial Alignment* influences *Stakeholder Management and Influence* that has a significant impact on both *Capability and Culture Building* and *Strategic Direction Governance and Conflict Resolution*.
- *Financial Alignment* constrains and enables both *Strategic Direction Governance and Conflict Resolution* and *Strategic Refinement and Boundary Setting* which in turn re-influences *Financial Alignment* as a feedback loop via *Strategic Communication and Framing*.
- *Stakeholder Management and Influence* depends on, and feeds into, both *Strategic Communication and Framing* and *Financial Alignment*.
- *Capability and Culture Building* enhances the functioning of all other domains over time.

Upon the approval of the IS strategy related artifacts, particularly at the end of the Building the Roadmap phase, Strategy Execution phase commences and Strategic Empowerment Cycle is initiated as an outcome of Strategic Enablement Cycle. In contrast, the Strategic Empowerment Cycle centres on the relational and performative mechanisms that drive adaptive engagement, utilise authority given to strengthen confidence by executing the strategy and realising value through execution. The Strategic Empowerment Cycle is therefore self-reinforcing and dynamic.

- *Adaptive Strategic Engagement* builds the relational trust, shared understanding, and adaptive capacity that underpin *Strategic Authority and Confidence* and influences *Capability and Culture Building* (reinforcing impact).
- *Strategic Authority and Confidence* then enables *Strategic Delivery and Value Realisation* by providing Executive Managers with the legitimacy, credibility, and clarity needed to secure resources and deliver strategy execution phase of the strategic alignment.
- *Strategic Authority and Confidence* provides a reinforcing influence on *Strategic Direction Governance and Conflict Resolution* (reinforcing impact).
- The outcomes of *Strategic Delivery and Value Realisation* in turn strengthen *Strategic Authority and Confidence* through proven performance and feed back into engagement by generating new learning, challenges, and priorities.

- *Strategic Delivery and Value Realisation* provides a reinforcing influence on *Strategic Refinement and Boundary Setting* and *Financial Alignment* (reinforcing impact).
- *Strategic Delivery and Value Realisation* success enhances *Strategic Authority and Confidence*, authority accelerates *Adaptive Strategic Engagement* consensus in future cycles, and *Adaptive Strategic Engagement* continuously adapts *Strategic Delivery and Value Realisation* priorities in response to changing contexts.

As strategic alignment is a circular and iterative process, Strategic Empowerment Cycle provides feedback loop on some of the mechanisms in Strategic Enablement Cycle. These two cycles are mutually reinforcing as outlined below:

- The mechanisms within the Strategic Enablement Cycle such as *Strategic Direction and Governance and Conflict Resolution* provide the clarity and legitimacy that underpin *Strategic Authority and Confidence* in the Strategic Empowerment Cycle.
- *Financial Alignment* and *Stakeholder Management and Influence* from the Strategic Enablement Cycle indirectly support resource mobilisation and execution credibility, which are essential for *Strategic Delivery and Value Realisation* that is enabled by *Strategic Direction Governance and Conflict Resolution.*
- *Strategic Communication and Framing* from Strategic Enablement Cycle indirectly feeds into *Adaptive Strategic Engagement*, helping shape shared understanding and trust.
- Conversely, *Strategic Delivery and Value Realisation* and *Adaptive Strategic Engagement* from the Strategic Empowerment Cycle generate feedback, learning, and performance evidence that inform and refine Strategic Enablement Cycle and its mechanisms - prompting adjustments in *Strategic Direction, Governance and Conflict Resolution* and *Strategic Communication and Framing*.
- *Capability and Culture Building* acts as a bridge between the two cycles, enhancing both the procedural robustness of Strategic Enablement Cycle and the relational agility of Strategic Empowerment Cycle.

Together, these cycles form a dynamic, iterative system where Strategic Enablement Cycle provides the strategic foundations, and Strategic Empowerment Cycle

activates and sustains strategic momentum while ensuring the strategic alignment. Their interaction ensures that strategy is not only well-designed but also effectively delivered, continuously aligned and adapted, and organisationally embedded to deliver value.

5.2.6.1 Cross-Case Comparative Analysis

This section presents a comparative analysis of the three case study organisations, focusing on the selective codes (mechanisms) identified in Section 5.2.5.3 of this thesis. To provide a nuanced understanding of how strategic alignment mechanisms are enacted across different organisational contexts, “Inputs” provided by Executive Managers (Strategic Enablement Cycle) and “Outputs” gained (Strategic Empowerment Cycle) are evaluated for each case. Mechanisms were rated “High” when they were strongly present, consistently referenced, and central to executive engagement and alignment. “Medium” indicated moderate presence or influence, while “Low” reflected limited or peripheral impact. This assessment was determined through systematic coding, cross-case comparison, and qualitative synthesis of interview and documentary evidence, ensuring that each assessment was both data-driven and contextually grounded.

Table 40 - Cross-Case Comparative Analysis

Section | Selective Codes (Mechanisms)	CSO1	CSO2	CSO3
Strategic Enablement Cycle (Inputs)			
5.2.5.3.2.1 | Strategic Direction, Governance and Conflict Resolution	**High** - Clear vision, decisive governance, proactive conflict resolution	**Medium** - Direction set, governance present, conflict managed reactively	**Medium** - Vision articulated, governance distributed, conflict resolution collaborative
5.2.5.3.2.2 | Strategic Refinement and Boundary Setting	**Medium** – Boundaries clarified, refinement iterative	**High** – Boundaries rigorously defined, refinement continuous	**Low** – Boundaries flexible, refinement less formal
5.2.5.3.2.3 | Financial Alignment	**High** – Financial scrutiny applied, value justification mandated	**High** – Financial alignment central, rigorous value analysis	**Medium** - Financial alignment implicit, less formalised
5.2.5.3.2.4 | Stakeholder Management and Influence	**Medium** – Stakeholder management active, networked influence	**Medium** – Stakeholder management active, influence situational	**High** - Stakeholder engagement broad, influence direct and sustained
5.2.5.3.2.5 | Strategic Communication and Framing	**High** – Communication structured, framing consistent	**Low** – Communication ad hoc, framing consistent	**Medium** – Communication regular, framing adaptive
5.2.5.3.2.6 | Capability and Culture Building	**High** – Capability development prioritised, culture actively shaped	**Low** - Capability building limited, culture implicit	**Medium** - Capability development encouraged, culture addressed
Strategic Empowerment Cycle (Outputs)			
5.2.5.3.3.1 | Adaptive Strategic Engagement	**High** – Continuous learning, adaptive engagement, reflective practice	**Medium** – Learning periodic, engagement adaptive, reflection present	**Medium** – Learning embedded, engagement adaptive, reflection informal
5.2.5.3.3.2 | Strategic Authority and Confidence	**High** – Authority gained, confidence reinforced, executive legitimacy established	**High** – Authority central, confidence strengthened, leadership credibility enhanced	**Medium** – Authority distributed, confidence moderate, legitimacy situational
5.2.5.3.3.3 | Strategic Delivery and Value Realisation	**High** – Delivery targets met, value realised, outcomes tracked	**High** – Delivery strong, value realised, outcomes measured	**Medium** – Delivery consistent, value realised, outcomes less systematically tracked

The cross-case comparison confirms that the mechanisms underpinning the Executive Manager Engagement Cycle construct are present across all cases, though

their execution varies in strength and emphasis. This supports the analytical generalisability of the framework and its applicability to similar organisational settings, while also highlighting the importance of contextual adaptation in how alignment mechanisms are enacted. This underscores the need for Executive Managers to tailor alignment practices to their organisational context while drawing on a common set of underlying mechanisms.

5.3 Revised Conceptual Framework

5.3.1 Reflections on Preliminary Conceptual Framework

Ravitch and Riggan (2017) view a conceptual framework as a visual representation of a study's main theoretical tenets or concepts. The following diagram was Researcher's first cut at making some explicit theoretical statements (Miles and Huberman, 1994) as previously presented in Section 2.5 of this thesis.

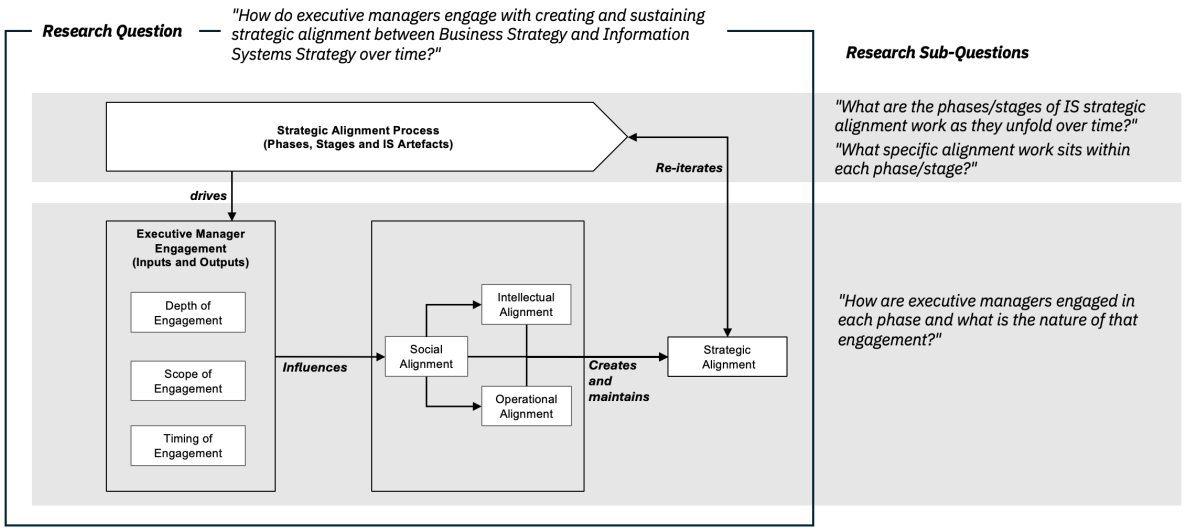


Figure 93 - Reflections on the Preliminary Conceptual Framework (Based on Reich and Benbasat (2000) and Jenkin et al. (2019))

The preliminary conceptual framework has been graphically amended over the course of this research; however, the key tenets of the framework have not changed. The central tenet of the diagram is the feedback loop that begins within the strategic alignment process to drive the engagement with Executive Managers, and this engagement influences Social Alignment that impacts Intellectual and Operational

alignment. This influence then creates and sustains Strategic Alignment, which in turn triggers the Strategic Alignment Process once again.

This research is grounded in a multi-theoretical foundation that collectively supports its aim to explore the creation and sustenance of strategic alignment between business and IS strategies, with a particular focus on the nature of engagement with Executive Managers. The theoretical perspectives presented in Section 2.3.2.6 of this thesis inform the conceptual framework, which positions strategic alignment as a stakeholder-driven, cyclical process shaped by the inputs and outputs of executive engagement across time. Ability to answer the stated research sub-questions based on the empirical data have provided further insights on how strategic alignment is created and sustained and the nature of the executive engagement during the phases and stages (including relevant IS artefacts) of the strategic alignment process. The preliminary conceptual model also acknowledges that strategic alignment is a dynamic and iterative phenomena and once defined and established at a point in time, it requires to be re-iterated, and strategic alignment process is executed on a cyclical nature.

As suggested by Miles, Huberman and Saldaña (2019), conceptual framework is inductively derived and evolutionary model to identify key concepts and indicate interrelationships. The Researcher has been on a journey of iterations and revisions on his conceptual framework throughout the research period and the next section will aim to outline the final version of these revisions and present the proposed theoretical framework for this research.

5.3.2 Proposed Theoretical Framework

A theoretical framework consists of a selection of concepts and relations among them, explained either in narrative form or graphically to present the major concepts simultaneously and their relations (Pare and Elam, 1997). Holmström (2005) suggests that theories provide a language for comprehending the world.

At this critical junction of the thesis, it is important to bring it all together in order to set the foundation for the next chapter of this thesis – Discussion – by outlining the proposed theoretical framework in the light of the stories from the field and subsequent

analysis that led the data talk. Based on the research question and the underlying three research sub-questions, the previous sections of the Chapter 5 of this thesis has outlined findings that are grounded in data and reflect the observed episodes from the three case study organisations, as documented in Chapter 4. The following list provides a quick re-cap of the key findings and their reference to the relevant sub-sections of Chapter 5 of this thesis to guide the reader.

- **Strategic Alignment as a Process Framework** that represents the linear and static conceptual view of strategic alignment. As outlined in Sections 5.2.2.1 and 5.2.3, drawing on both empirical evidence from case study narratives and theoretical insights from the literature, strategic alignment emerges as a structuring process that organises and coordinates the interrelated activities of IS strategy development, initiative design and delivery, and management, support and maintenance of the evolving IS landscape.
- **Strategic Alignment as a Lifecycle Loop** that conceptualises strategic alignment as a dynamic and iterative lifecycle loop comprising three interrelated activities: strategic sensing, strategic interpretation, and strategic enactment based on the answers provided in Section 5.2.2.3 of this thesis.
- **Nature of Engagement with Executive Managers** - As outlined in the Sections 5.2.5.1 and 5.2.5.2, building on the strategic alignment process, three forms of executive engagement including four overarching core themes underpin the nature of engagement with the Executive Managers. As outlined in Section 5.2.5.3, engagement process with Executive Managers were demystified by identifying and articulating the key domains of input (i.e. what Executive Managers contribute during the engagement) and output (i.e. what they gain as a result of their involvement). The Executive Manager Engagement Cycle, as a combination of Strategic Enablement Cycle and Strategic Empowerment Cycle, is drawn from across three case study organisations, offering a nuanced understanding of how executive engagement unfolds in practice.

The proposed theoretical framework moves beyond static models of strategic alignment to embrace a more fluid, dialogic and informed view of strategy design and execution. It foregrounds the lived experiences of Executive Managers and positions

their contributions and gains as essential to the construction of a viable and contextually grounded process outlining the strategic alignment.

The resulting theoretical framework synthesises the narrative accounts, processual dynamics, and grounded conceptual categories. The diagram below is the end product of this research as a result of ongoing refinements made as the research has been progressed. The representation aims to provide a dynamic view of the proposed theoretical framework to reflect the circular, dynamic, and iterative nature of the strategic alignment process including the identified mechanisms within the Strategic Alignment process and the interaction between the strategic enablement and empowerment cycles.

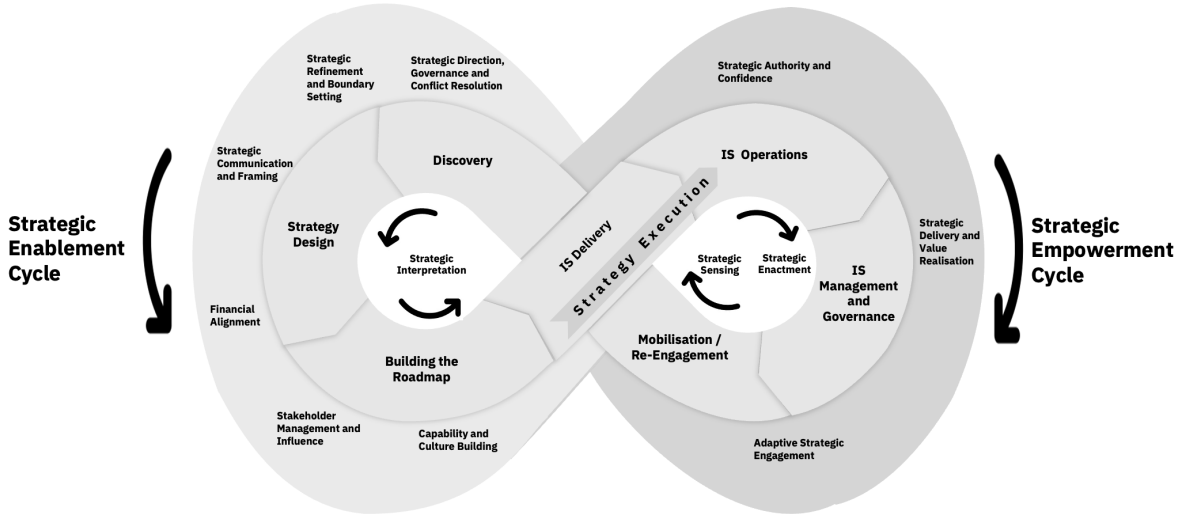


Figure 94 - An Integrated Theoretical Framework for Creating and Sustaining Strategic Alignment through Executive Engagement[8]

Regarding the middle lifecycle loop, representing the strategic alignment process, the Researcher notes that the strategic alignment process is a never-ending cycle of multiple strategic alignment episodes that follow the **Strategic Alignment as a Process**

[8] The Researcher notes that the Strategy Execution phase is shown as a combined set of its own stages (IS Delivery, IS Operations, and IS Governance and Management) in the diagram above, because these stages are interdependent, unfold over a long period, and need to be presented together to better articulate the flow for strategic enactment and strategic sensing activities as outlined in in Section 5.2.2.3 of this thesis.

Framework as outlined in Section 5.2.2.1 and fully documented in Appendix 9 of this thesis. This research concludes that IS artefacts are not merely outputs of alignment processes; they are central mediators that facilitate shared understanding, anchor decision-making, and translate strategic intent into operational reality - they do not simply appear alongside alignment activities as they actively shape how alignment occurs. In a processual and interpretivist/constructivist design, mediation is considered as that an artefact is the medium through which actors interact, negotiate meaning, surface conflicts, or converge. Mediation is demonstrated through temporality, sequencing, and changes in actors' understanding and decisions after engaging with the artefact as evidenced in across all three case studies.

This research conceptualises strategic alignment process through a three-step cyclical lifecycle loop as depicted as **Strategic Alignment as a Lifecycle Loop** as outlined in Section 5.2.2.3 of this thesis. It begins with *Strategic Sensing*, where emerging drivers, risks, and opportunities are identified through ongoing IS Management and Governance related activities. Next is *Strategic Interpretation* (i.e. Discovery, Strategy Design and Building the Roadmap phases of the strategic alignment process), which frames the meaning and scope of strategic alignment in light of current business and technology contexts, particularly around trigger events. Finally, *Strategic Enactment* (IS Delivery, IS Operations and IS Management and Governance stages of Strategy Execution phase of strategic alignment process framework) translates strategic insights into action through IS Delivery (i.e. detailed planning and the delivery of new IS initiatives) and the continued execution of IS Operations. This loop reflects a dynamic and iterative approach to IS strategy development and renewal, grounded in performance review, external market changes, organisational imperatives and operational realities.

The commencement of a new strategic alignment episode marks a deliberate re-engagement with the strategic alignment process. This is not merely a continuation of previous efforts but a reinvigoration. Re-engagement with the strategic alignment process is a conscious decision to revisit, reassess, and realign the relationship between business strategy and IS strategy in light of evolving organisational priorities, market conditions, and technological opportunities. Each cycle is episodic yet cumulative, and building on lessons learned from previous cycles while adapting to new realities. This

episodic nature of the strategic alignment process allows organisations to remain agile, responsive, and continuously aligned.

Regarding the outer lifecycle loop, representing the **Nature of Engagement with Executive Managers** in the diagram as outlined in Section 5.2.5.3 of this thesis. The Researcher notes that the *Strategic Enablement Cycle* focuses on the structural and procedural mechanisms that shape the design, governance, and communication of strategy. It ensures that strategic initiatives are coherent, financially viable, well-communicated, and supported by capable individuals and a conducive culture. These mechanisms provide the strategic scaffolding (direction, legitimacy, and clarity) upon which empowerment can be built. These interactions are not linear but cyclical, with multiple reinforcing feedback loops ensuring that learning, adaptation, and recalibration occur throughout the Strategic Enablement Cycle. Upon the approval of the IS strategy related artifacts, particularly at the end of the Building the Roadmap phase, Strategy Execution phase commences and *Strategic Empowerment Cycle* is initiated as an outcome of Strategic Enablement Cycle. In contrast, the Strategic Empowerment Cycle centres on the relational and performative mechanisms that drive adaptive engagement, build strategic confidence, and realise value through execution.

Within the outer lifecycle loop, both of the cycles operate within the three forms of executive engagement (i.e. governance, discussion and communications forms) including four overarching core themes (i.e. Accessibility and Strategic Use of Executive Time, Preparation and Framing, Networked Engagement and Business Value Driven Dialogue) underpin effective engagement with the Executive Managers as outlined in Sections 5.2.5.1 and 5.2.5.2 of this thesis. The Researcher notes that social alignment is cultivated through deliberate forms of engagement (Governance, Discussion, and Communication), each contributing to the development of shared understanding, trust, and commitment across organisational boundaries. Executive managers play a pivotal role in bridging cognitive and relational divides, facilitating the translation of strategic intent into actionable plans, and ensuring that alignment is both intellectually robust and socially embedded.

The Researcher also suggests that there is a reciprocal relationship between social, intellectual, and operational alignment. Social alignment - fostered through networked engagement and business-value-driven dialogue - enables the co-creation of strategic

artefacts and the validation of strategic direction. Intellectual alignment, in turn, provides the shared understanding and analytical grounding required for sustained collaboration and adaptive engagement. Operational alignment reinforces both of these dimensions by ensuring that agreed strategic intents are translated into coordinated actions, resource commitments, and strategy execution practices. Together, these forms of alignment interact as mutually reinforcing elements within an iterative cycle of alignment work.

It is important to note that both Strategic Alignment Lifecycle Loop and Executive Manager Engagement Cycle do not claim deterministic causality in the positivist sense. Instead, they identify generative mechanisms - regular patterns of interaction, feedback, and adjustment - that repeatedly shape how alignment and engagement emerge and are sustained over time. These mechanisms are process-causal rather than variable-causal, and they are empirically observable across the longitudinal evidence from all three case studies. Within an interpretivist/constructivist epistemology, causal mechanisms are understood not as universal laws but as recurring patterns of action and interpretation that shape subsequent organisational behaviour. They do not determine outcomes, but they consistently enable and shape the creation and sustainment of strategic alignment. The Strategic Alignment Lifecycle Loop and Executive Manager Engagement Cycle are constructs that express these mechanisms as dynamic relationships rather than fixed causal laws.

As a result, Strategic Alignment process is centred at the intersection of two dynamic and reinforcing loops. Strategic Alignment process operates within the Strategic Sensing, Strategic Interpretation and Strategic Enactment cyclical lifecycle loops while the engagement with Executive Managers operate within the Executive Manager Engagement Cycle, consisting of Strategic Enablement Cycle and Strategic Empowerment Cycle feedback loops. Both these interacting loops influences Social Alignment, Intellectual Alignment and Operational Alignment that create and sustain Strategic Alignment between the business and IS strategies.

5.4 Conclusion

This chapter has detailed the development of the proposed theoretical framework that captures the strategic alignment process (including its phases, stages and IS artefacts) and the nature of engagement with the Executive Managers, contextualised within the network utility industry in Ireland. Grounded in empirical data and shaped by the narratives presented in Chapter 4, the proposed theoretical framework represents a structured abstraction of the strategic alignment dynamics observed in practice.

In constructing this framework, the research undertook what Klag and Langley (2013) refer to as a conceptual leap - a deliberate and reflective movement from the empirical world of field data to the theoretical world of ideas. This leap enabled the articulation of abstract concepts and relationships that extend beyond the immediate context of the study, offering explanatory power and relevance – within the boundaries of what Weick (1989) describes as “disciplined imagination” (p. 516) - to broader strategic alignment discourse.

The next chapter will position the proposed theoretical framework (and will propose a final four-step re-conceptualisation as part of the final synthesis of the research findings in Section 6.2.6) within the existing strategic alignment literature, identifying areas where this research aligns, reinforces, challenges, or extends current understanding, and outlining its theoretical, empirical and practical contributions, acknowledged limitations of the study, and implications for future inquiry.

6 Discussion

At this juncture of the thesis, the purpose is to summarise and interpret the results of the research study, situate them within the broader context of IS strategy and strategic alignment literature, and assess their implications for theory and practice.

This chapter begins with a summary of the key findings in Section 6.1. It then interprets these findings in relation to prior work in Section 6.2, with particular attention to theoretical implications in Section 6.3 and empirical implications in Section 6.4 and practical implications in Section 6.5. Methodological reflections in Section 6.6 and limitations of the research study in Section 6.7 are discussed, followed by recommendations for future research in Section 6.8. The chapter concludes with a synthesis of the discussion and a transition to the final conclusions in Section 6.9 of the thesis.

6.1 Key Findings and Conceptual Developments

The findings of this research illuminate not only the structural and procedural aspects of strategic alignment but also the critical role of executive engagement, offering novel theoretical framework and practical mechanisms that advance both theory and practice.

This section provides a structured summary of the key findings of the research, organised in alignment with the main research question and its sub-questions. The purpose is to present a concise description of the empirical results, setting the foundation for their subsequent interpretation and discussion in relation to the existing literature.

The Researcher would like to note that a deliberate comprehensiveness has been applied in the following sub-sections, however a clarification is needed to clarify hierarchy and distinctiveness among the contributions. The sub-sections outlined below are not separate standalone contributions, but rather interlocking components of a single, coherent theoretical advancement as proposed in this thesis. At the core lies the

Strategic Alignment Process Framework (Section 6.1.1), which is the primary and most substantial contribution. The *Strategic Alignment Lifecycle Loop* (Section 6.1.2) and the *Executive Manager Engagement Cycle* (Section 6.1.3) are extensions of this core framework: they refine and deepen the explanation by articulating the dynamic mechanisms and engagement behaviours that underpin the strategic alignment process. Likewise, the proposal of *Financial Alignment* (Section 6.1.4) is not a disconnected addition but a refinement prompted directly by empirical evidence. In this way, the contributions are layered rather than parallel - each builds on the previous one, collectively forming a more complete and empirically grounded explanation of how strategic alignment is created and sustained in practice which is the proposed answer to the main research question that this thesis aims to provide. This integrated structure ensures that the contributions are not over-extended but logically connected refinements of a single theoretical contribution as further discussed in Section 6.2.6 of this thesis.

6.1.1 Strategic Alignment Process Framework

The Strategic Alignment Process Framework developed in this research as outlined in Section 5.2.2.1 and included in Appendix 9 of this thesis, in its entirety provides a structured and detailed representation of how alignment between business strategy and IS strategy is created and sustained within the regulated energy network utility organisations in Ireland. The framework conceptualises strategic alignment as a process comprising five distinct phases: Mobilisation, Discovery, Strategy Design, Building the Roadmap, and Strategy Execution. Each phase is further delineated into specific stages and activities including IS artefacts, which collectively guide the progression from initial engagement to the realisation of strategic objectives.

Throughout these phases, the proposed Strategic Alignment Process Framework emphasises the importance of structured engagement with Executive Managers, the production and use of IS artefacts, and the integration of feedback loops to support ongoing learning and adaptation. The Strategic Alignment Process Framework represents a novel contribution to the literature by providing a detailed, empirically grounded model that captures the complexity and dynamism of alignment work in

practice. It addresses gaps identified in previous research by specifying the phases, stages, activities, and IS artefacts involved in strategic alignment, and by highlighting the central role of executive engagement throughout the process.

6.1.2 Strategic Alignment Lifecycle Loop

The lifecycle loop view of strategic alignment developed in this research, as outlined in Section 5.2.2.3 of this thesis, is structured around three interrelated activities surrounding the Strategic Alignment Process Framework: Strategic Sensing, Strategic Interpretation, and Strategic Enactment. The lifecycle loop is structured around the three core domains and operates alongside with the phases and stages of the Strategic Alignment Process Framework. These three activities operate in a continuous feedback loop, reflecting the dynamic and iterative nature of strategic alignment work. The cycle provides a structure for understanding how organisations initiate, adapt, and sustain alignment between business and IS strategies over time. This dynamic and processual perspective moves beyond static models and highlights the importance of ongoing engagement, review, collaboration, and recalibration in achieving and sustaining strategic alignment.

This lifecycle perspective advances understanding of strategic alignment by highlighting its dynamic, processual and adaptive characteristics. It underscores the importance of ongoing engagement, feedback and learning, and provides a conceptual foundation for the development and implementation of effective alignment practices in complex organisational settings.

6.1.3 Nature of Engagement with Executive Managers

As outlined in the Section 5.2.5.1 of this thesis, three forms of Executive Engagement were identified – Governance, Communications and Discussion. This research reveals that the *Communications* form of executive engagement leverages existing communication channels and formats (i.e. newsletters, intranet, blogs) during strategic alignment episodes. In contrast, the *Discussion* form establishes and sustains distinct engagement types tailored to these episodes. Finally, the *Governance* form

draws on existing governance structures while also introducing unique engagement types specific to the strategic alignment context.

These forms of engagement include four overarching core themes, as outlined in Section 5.2.5.2 of this thesis, that underpin effective engagement with the Executive Managers. Collectively, these core themes were developed and grounded in empirical data as part of this research - extending the conception proposed by Jenkin et al. (2019) - shape the effectiveness of executive engagement in the strategic alignment process. These findings provide a nuanced understanding of the practical dynamics of executive engagement and highlight the importance of deliberate, well-managed interactions in achieving successful strategic alignment.

The Executive Manager Engagement Cycle, as conceptualised in Section 5.2.6 of this thesis, captures the dynamic and reciprocal mechanisms through which Executive Managers contribute to and benefit from the strategic alignment process. This cycle is defined by two interdependent domains: the inputs provided by Executive Managers (Strategic Enablement Cycle) and the outputs or gains realised through their engagement (Strategic Empowerment Cycle).

The qualitative data analysis of the engagement with Executive Managers identified *Strategic Enablement Cycle* encompassing six core domains of “inputs” that collectively enable the creation and sustenance of strategic alignment as outlined in Section 5.2.5.3.2 of this thesis. In addition, the S*trategic Empowerment Cycle* is defined as reciprocating through three principal domains of “outputs”, representing the gains realised by Executive Managers as a result of their involvement as outlined in Section 5.2.5.3.3 of this thesis.

The feedback loops between the Strategic Enablement Cycle and Strategic Empowerment Cycle ensure that learning, adaptation, and recalibration occur throughout the strategic alignment lifecycle loop. This dynamic interplay positions the engagement with Executive Managers as both a driver and beneficiary of strategic alignment, sustaining organisational coherence and responsiveness over time. This integrated dynamic is central to the creation and sustenance of strategic alignment based on the empirical data across the three case study organisations as outlined in Chapter 4 of this thesis. Further discussion on the nature and form of this interaction and

its resemblance to certain types of strategic alignment is included in Section 6.2.6 of this thesis.

6.1.4 Financial Alignment

Tallon et al. (2020) argues that the determination of IS business value is part art and part science. Schryen (2013) defines business value of IS as “the impact of investments in particular IS assets on the multidimensional performance and capabilities of economic entities at various levels, complemented by the ultimate meaning of performance in the economic environment’’ (p. 141). The Researcher notes and acknowledges that scholars of the IS domain have emphasised the importance of linking IS investments to business performance and value creation (Melville et al., 2004; Schryen, 2013; Gerow et al., 2014; Tallon et al., 2016) as outlined in Section 2.3.2.4 of this thesis. While these studies have demonstrated financial benefits associated with alignment, they have tended to overlook the iterative, dialogic, and context-bound nature of alignment work - especially the financial scrutiny and negotiation over costs, benefits, affordability, and prioritisation that occur during executive decision-making. As a result, financial aspect are frequently treated as a constraint, enabler or a variable rather than as an active, mediating mechanism within the strategic alignment process.

The cyclical nature of the Executive Manager Engagement Cycle revealed that Executive Managers consistently prioritised financial viability, challenged value assumptions, and embedded cost awareness into strategic decision-making. These findings prompted the Researcher to conceptually link the observed practices to the broader literature on strategic alignment, which has historically under-theorised the financial dimension within the extant literature on strategic alignment. The research proposes to go further by specifying the mechanisms through which financial discipline and accountability are embedded in the strategic alignment process itself.

Despite the centrality of financial scrutiny, budgeting, and value realisation in both IS strategy practice and executive decision-making, the academic literature on strategic alignment has not formally recognised financial alignment as a distinct alignment type. Traditional models, such as the Strategic Alignment Model (SAM) and its derivatives, primarily emphasise intellectual, operational, and social alignment, focusing on the fit

between business and IS strategies, infrastructure, and stakeholder relationships (Henderson and Venkatraman, 1993; Reich and Benbasat, 2000, Gerow et al., 2014, 2015, 2016). Financial considerations are typically treated as enabling factors, constraints, or performance metrics rather than as a dynamic, interactive alignment dimension (Kaplan and Norton, 1996; Porter, 1980). While frameworks like the Balanced Scorecard (Kaplan and Norton, 1996) and recent approaches such as the Strategic Alignment Framework (Sepasi, 2024) integrate financial outcomes with strategic objectives, there is no reference to conceptualising financial alignment as a peer to other alignment types in the strategic alignment literature in IS domain.

Recent scholarship acknowledges the importance of harmonising financial planning and resource allocation with strategic goals, especially in regulated and resource-constrained environments (Schiemann, 2009; Sepasi, 2024), yet these discussions remain at the operational or governance level. Thus, the elevation of financial alignment to the status of a core alignment type within the IS domain represents a novel theoretical contribution for this research study. By grounding this proposal in empirical findings from executive engagement, where financial viability, value justification, and funding affordability emerged as recurring themes, this study addresses a notable gap in the literature and invites further inquiry into the mechanisms and impacts of financial alignment within strategic alignment processes.

This research identifies and conceptualise Financial Alignment as a distinct and recurring alignment type, grounded in both empirical evidence and theoretical development. The identification of Financial Alignment was not an initial focus or predetermined objective of this thesis; rather, it emerged organically through grounded analysis of Executive Manager engagement during strategic alignment episodes. In light of both empirical evidence and the critical importance of financial scrutiny in practice, this research proposes Financial Alignment as a new alignment type that complements and extends existing models by foregrounding the economic realities that shape strategic alignment processes.

The core mechanisms of Financial Alignment include rigorous commercial scrutiny of options, often through challenge sessions and scenario-based affordability testing; value justification using agreed frameworks that encompass productivity, performance, and predictability; and the use of business values cases to visualise and communicate

value. Portfolio trade-offs and staged funding gates, typically aligned to regulatory or budget cycles, are central routines, as are affordability stress-tests and the establishment of cost-to-serve baselines (such as total cost of ownership models). Observable indicators of Financial Alignment in practice include the production of business case documents with quantified and qualified benefits, portfolio board minutes that evidence challenge and reprioritisation, and the use of funding tranche approvals and benefit realisation dashboards tied to strategic objectives.

In the IS literature, strategic alignment is a general concept with multiple conceptualisations and definitions, however several dimensions of alignment are clearly apparent and subtle nuances of alignment is articulated, as outlined in Section 2.3.2.2 of this thesis. Based on Henderson and Venkatraman's (1993) SAM, alignment can refer to the fit between the business and IT strategic domains encompassing intellectual, social and operational alignment. Strategic alignment is also contingent on many of the social and cultural aspects of an organization (Reich and Benbasat, 1996; Chan, 2001; Chan and Reich, 2007a). The table below outlines the summary of recognised alignment types in the literature and positions Financial Alignment with its own unique facets for further consideration.

Table 41 - Facets of Alignment Types

Facet	Intellectual Alignment	Social Alignment	Operational Alignment	Financial Alignment
Base Definitions in the IS literature	The degree to which IT and business strategies are aligned at the planning level, focusing on shared goals and formal integration of strategic plans (Gerow et al., 2014).	"The state in which business and IT executives within an organizational unit understand and are committed to the business and IT mission, objectives, and plans" (Reich and Benbasat 2000, p. 82)	The alignment between IT and business infrastructures and processes, ensuring that day-to-day operations support strategic objectives (Gerow et al., 2014).	Not defined in the literature.
Primary Focus	Strategy fit	Shared understanding and trust	Process/infrastructure fit	Viability and value defensibility
Typical Routines	Joint planning; artefact co-design	Engagement forums; sensemaking	Delivery governance; run-ops	Value cases; funding gates; portfolio trade-offs
Main Outputs	Aligned strategies; roadmaps; principles	Commitment; sponsorship; permission to proceed	Delivered capabilities; service levels	Approved funding tranches; benefit maps; affordability sign-offs
Failure Signals	Drift; incoherent artefacts	Low buy-in; contested narratives	Delivery slippage; rework	Unfunded priorities; weak value logic

The Researcher proposes Financial Alignment as a peer alignment type alongside intellectual, social, and operational alignment, and defines *Financial Alignment* as the systematic, executive-led integration of commercial scrutiny, affordability analysis, and value justification into the design, prioritisation, sequencing and execution of IS

initiatives. Financial Alignment is an evaluative and integrative alignment type that embeds financial discipline and accountability into strategic alignment work through recurring executive routines and artefacts, ensuring that planned and delivered IS initiatives are viable, defensible, and staged in line with affordability and measurable business value. Its purpose is to ensure that strategic coherence is sustained under budgetary and regulatory constraints throughout the strategy design and strategy execution related phases and stages of the Strategic Alignment Process Framework. While Financial Alignment is most salient in regulated or resource-constrained environments - such as utilities or the public sector - it is relevant wherever IS portfolios face binding budget cycles and external accountability. Importantly, Financial Alignment does not replace intellectual, social, or operational alignment; rather, it complements these by focusing specifically on the financial viability and business value defensibility of strategic choices, not just their conceptual fit, operational coherence or stakeholder buy-in. Based on the findings of this research, the Researcher suggests the following propositions:

- Financial Alignment mediates the effect of intellectual alignment on operational alignment under resource constraints;
- The presence of robust Financial Alignment increases alignment resilience across cyclical regulatory periods; and
- Co-constructed financial logic - such as transparent value and cost cases and funding cadence - strengthens social alignment, generates alternative strategy options for intellectual alignment and accelerates decision-making.

Together, these insights position Financial Alignment as a critical, recurring mechanism in the creation and sustainment of strategic alignment, particularly in contexts where financial discipline and value accountability are paramount. Further discussion on the nature of this alignment type is included in Section 6.2.5 of this thesis.

6.1.5 Closure

This section has presented the key findings and conceptual developments in a layered manner arising from this research. While each layer presented builds on the previous one, collectively forming a more complete and empirically grounded

explanation of how strategic alignment is created and sustained in practice which is the proposed answer to the main research question that this thesis aims to provide.

It is important to distinguish the empirical generalisations emerging from the three case studies from the higher-level theoretical abstractions that constitute the final contribution before moving to the following section which will build on these insights by situating the findings within the context of prior research, critically examining their contribution to the strategic alignment literature, and outlining directions for future inquiry.

The empirical generalisations reflect patterns repeatedly observed across the three Case Study Organisations - such as common artefact-mediated process and stages, recurring forms of executive contribution and gains, and consistent feedback-driven cyclical loops. These generalisations describe what happened in these specific organisational settings. In contrast, the theoretical abstractions - Strategic Alignment Process Framework, Strategic Alignment Lifecycle Loop, and Executive Manager Engagement Cycle - represent analytical constructs that transcend any single case study organisation outlined in Chapter 4. These abstractions synthesise empirical patterns with established theoretical concepts from the literature. By articulating how the empirical patterns map onto conceptual categories and then elevating them into transferable theoretical mechanisms, the thesis maintains a clear line between what is observed (empirical generalisation) and what is inferred (theoretical abstraction). This separation ensures that the final theoretical contribution is both empirically grounded and analytically generalisable (within their unique limitations as outlined in Section 6.7) beyond the specific cases examined.

6.2 Interpretation of Findings in Relation to Literature

This section marks a transition from the presentation of key findings and conceptual developments to a deeper interpretation and contextualisation of the research findings. This section critically examines how the findings and theoretical frameworks developed in this research align with, extend, or challenge the existing body of literature on strategic alignment and Executive Manager engagement. Drawing on the

comprehensive review of academic literature presented in Chapter 2, the discussion situates the empirical results within the context of established theories, models, and debates in the field.

By systematically comparing the study's findings with the extant literature, this section clarifies the unique contributions of the research and highlights its relevance for both academic inquiry and practical application. The following subsections address the main areas of alignment and divergence, providing a nuanced interpretation of how this research advances understanding in the strategic alignment domain.

6.2.1 Strategic Alignment Process Framework – Phases, Stages and IS Artefacts

The strategic alignment literature has long emphasised the importance of aligning business and IS strategies to achieve organisational performance. However, many foundational models, such as the Strategic Alignment Model (SAM) (Henderson and Venkatraman, 1993) remain conceptual and static, offering high-level representations of alignment without detailing the phases, stages, or artefacts involved in the actual execution of alignment work.

A persistent gap in the strategic alignment literature has been the lack of attention to the specifics - activities, content, artefacts - that constitute alignment work in practice. While much of the extant research has focused on alignment as a conceptual or relational phenomenon, there has been limited exploration of the tangible process definition including strategic alignment process phases, stages, and IS artefacts that underpin the creation and sustenance of strategic alignment (Orlikowski and Iacono, 2001; Moeini et al., 2019). Much of the IS strategy literature remains focused on normative prescriptions for IS strategy formulation (Waema and Walsham, 1990). What is known about strategic alignment so far still lack actionable conclusions that would provide managers ways to achieve or improve alignment (Luftman et al., 2017).

Dairo et al. (2021) reinforce this critique through an empirical study and their findings highlight the absence of artefact-level detail and structured process models in existing frameworks, and call for improved understanding of how alignment is implemented, not just theorised. Recent systematic reviews (Őri and Szabó, 2024)

confirm that while models like SAM are widely cited, they have not evolved to include granular process steps or artefact definitions, leaving a gap in operational guidance. These recent critiques echoes the scholars who called for strategic alignment research to explore a more holistic treatment of alignment at multiple organisational levels and across multiple dimensions (Chan and Reich, 2007a), and to drive research on the activities of aligning where actors do “aligning” (Karpovsky and Galliers, 2015).

By documenting the content and structure of the alignment process and its artefacts within the *Strategic Alignment Process Framework*, this research responds to calls in the literature for more actionable and granular models of alignment. These calls have been echoed by scholars who advocate for a more holistic treatment of alignment across multiple organisational levels and dimensions and who urge researchers to move beyond antecedents and enablers to explore the actual activities of aligning.

The findings demonstrate that artefacts are not merely by-products of alignment activities, but play a central role in facilitating shared understanding, guiding decision-making, and enabling the translation of strategic intent into operational reality.

By operationalising alignment as a process with defined phases, stages, activities, and IS artefacts, this research extends the literature beyond abstract models and provides a granular, actionable framework for both scholars and practitioners. It also responds to critiques in the literature regarding the lack of detail on the “how” of alignment (Orlikowski and Iacono, 2001; Moeini et al., 2019), offering a structured approach that can be empirically examined and practically applied.

Furthermore, the study highlights the iterative and collaborative nature of IS artefact development, with Executive Managers and stakeholders actively engaged in the co-creation, review, collaboration, and refinement of alignment outputs. This process ensures that artefacts are not static documents, but “living documents” that evolve in response to organisational needs, stakeholder feedback, changing strategic priorities, and advancements in technology.

This research directly addresses this gap by providing a detailed process mapping of the phases, stages, and IS artefacts involved in the strategic alignment process. The *Strategic Alignment Process Framework* developed in this study outlines not only the sequence of alignment activities - from mobilisation and discovery to strategy design,

roadmap development, and strategy execution - but also the specific IS artefacts produced at each stage serving as a concrete anchor for strategic alignment work.

Although the proposed stages and IS artefacts within the Strategic Alignment Process Framework delineate the interaction with the organisation's business strategy and operational context, the underlying dynamic relationships and mechanisms, which are posited to operate beneath the overarching framework, are also conceptualised.

Whereas SAM (Henderson and Venkatraman, 1993) and subsequent models, as outlined in Appendix 3 of this thesis, in the literature present strategic alignment as a conceptual relationship between domains, the Strategic Alignment Process Framework demonstrates that alignment is enacted through concrete phases, stages and artefact-mediated interactions, and iterative cycles that are entirely absent from existing theories. This research extends the literature by illuminating the "how" of alignment work, detailing the strategic alignment process including the phases, stages and IS artefacts and collaborative activities that underpin the strategic alignment process. It also provides a practical framework for both scholars and practitioners seeking to understand, design, execute and manage alignment initiatives in complex organisational settings.

6.2.2 Strategic Alignment as a Dynamic, Lifecycle Loop and Processual Phenomenon

It is one of the common themes among the definitions within the literature that strategic alignment is not about the technology, it is all about the constant processes (Luftman et al., 1993), which are dynamic, iterative and continuous, that drive the alignment between business and IS strategies in order to gain strategic advantage. Therefore, strategic alignment is a journey to an end state and not an end state by itself (Dulipovici and Robey, 2013). This view positions strategic alignment as a dynamic and evolving process, rather than a static outcome. It reflects the need for ongoing engagement, adaptation, and responsiveness to organisational changes, stakeholder needs, and technological advancements.

Traditional models, such as the Strategic Alignment Model (SAM) of Henderson and Venkatraman (1993), provided a foundational understanding of alignment as the fit between business and IS strategies, business and IT infrastructures, and their cross-domain linkages. However, these models have been critiqued for their static nature and limited ability to explain how alignment is achieved and sustained over time (Chan and Reich, 2007a; Luftman et al., 2017). More recent scholarship has called for process-oriented and dynamic capability perspectives in response to changing organisational and technological contexts (Galliers, 2011; Moeini et al., 2019; Pelletier and Raymond, 2024).

Although strategic alignment has traditionally been viewed as a static condition - a state of fit between business needs and IT capabilities (Reich and Benbasat, 2000; Chan, Sabherwal and Thatcher, 2006; Preston and Karahanna, 2009b), recent literature increasingly recognises it as a dynamic and ongoing process. This shift reflects a growing understanding that alignment is shaped through the actions and interactions of various organisational actors over time (Karpovsky and Galliers, 2015; Yeow, Soh and Hansen, 2018).

Building on this processual view, newer studies have conceptualised alignment as a co-evolutionary process, where business and IT domains continuously adapt to each other across multiple levels of the organisation (Benbya and McKelvey, 2006; Peppard and Breu, 2003; Tanriverdi, Rai and Venkatraman, 2010; Vessey and Ward, 2013; Zhang, Chen and Lyytinen, 2021). This perspective highlights the importance of mutual learning, feedback, and strategic responsiveness in achieving and sustaining alignment. While co-evolutionary and dynamic capability perspectives suggest that alignment evolves over time, they stop short of specifying the concrete mechanisms through which this evolution occurs. The proposed Strategic Alignment Lifecycle Loop advances this literature by identifying the distinct phases and stages, feedback loops, and artefact-mediated actions that drive continuous strategic recalibration.

A central contribution of this research is the conceptualisation of strategic alignment as a dynamic, cyclical, and processual phenomenon, rather than a static or one-off achievement. This perspective is strongly aligned with the evolution of thinking in the strategic alignment literature, which has increasingly recognised alignment as an ongoing, adaptive process (Chan and Reich, 2007a; Leonard and Seddon, 2012; Moeini

et al., 2019; Pelletier and Raymond, 2024). The findings of this research align with and extend Amarilli et al.'s (2023) argument that strategic alignment should be understood as an ongoing process in which social and technical components are deeply interconnected within digital infrastructures (Henfridsson and Bygstad, 2013). These components mutually influence one another across multiple levels driving continuous transformation (Benbya and McKelvey, 2006; Vessey and Ward, 2013; Baker and Singh, 2019). From this perspective, a co-evolutionary conceptualisation of strategic alignment better captures the complexity of these dynamics.

The findings of this study aligns with co-evolutionary conceptualisation and addresses calls for further research by presenting the *Strategic Alignment Lifecycle Loop*, which foreground the cyclical and episodic nature of alignment work. The empirical evidence from network utility organisations in Ireland demonstrates that alignment is continuously negotiated and recalibrated through distinct phases, each characterised by specific stages, activities, IS artefacts, and forms of executive engagement.

This processual view is further reinforced by the identification of feedback loops and adaptive mechanisms that enable organisations to respond to evolving business priorities, operational realities, external pressures and advancements in technology. This research extends the co-evolutionary perspective in the strategic alignment literature by offering a detailed, processual view of how alignment unfolds in practice. While recent studies have moved beyond static models to conceptualise alignment as a dynamic and adaptive process, they often lack clarity on what IS strategy entails and how alignment is operationalised. By introducing the *Strategic Alignment Lifecycle Loop* grounded on the detailed definition of the *Strategic Alignment Process Framework*, this study provides a concrete framework that captures the iterative, feedback-driven nature of alignment work. It advances the literature by articulating the stages, artefacts, and collaborative activities that underpin alignment, offering both theoretical depth and practical relevance for understanding how organisations initiate, adapt, and sustain strategic alignment over time. It provides a robust foundation for further research on the mechanisms and outcomes of alignment as an ongoing organisational capability.

6.2.3 Stakeholder Theory and Executive Engagement Attributes

The literature review in this thesis underscores the centrality of stakeholder theory (Freeman, 1984; Mitchell et al., 1997; Donaldson and Preston, 1995) in understanding executive engagement within strategic alignment processes. Stakeholder theory conceptualises organisations as networks of relationships, where the interests, power, legitimacy, and urgency of various actors shape both strategic direction and operational outcomes. Within IS strategy and alignment, Executive Managers are positioned as highly salient stakeholders - possessing power, legitimacy, and urgency (Mitchell et al., 1997) - whose engagement is critical to the success of alignment initiatives.

Recent advances in stakeholder engagement theory, notably Jenkin et al. (2019), have operationalised engagement through three key dimensions: scope (breadth and directionality of engagement), depth (richness of information shared), and timing (when engagement occurs in the process). The thematic analysis in this research surfaced four central attributes across three forms (i.e. Governance, Communications and Discussion) of executive engagement including *Accessibility and Strategic Use of Executive Time*, *Preparation and Framing*, *Networked Engagement*, and *Business Value Driven Dialogue*. Each of these proposed attributes aligns with and extends stakeholder-related theories.

Stakeholder salience theory (Mitchell et al., 1997) highlights that the most powerful and legitimate stakeholders such as Executive Managers are often the most time-constrained. This research confirms that accessibility to executives is both a reflection of their salience and a practical constraint on engagement. The strategic use of executive time, as observed in the case studies, supports the emphasis on purposeful, outcome-oriented interaction (Jenkin et al., 2019), where timing and scope are key determinants of alignment success. This research extends Jenkin et al.'s (2019) framework by demonstrating that not only are timing and scope critical, but the quality of *Accessibility and Strategic Use of Executive Time* - how executive time is managed and protected with considerations on attention span, time availability and avoidance of overuse - directly influences alignment effectiveness. It is not the frequency or breadth of engagement, but its strategic focus and outcome orientation that drive success.

Stakeholder theory emphasises the importance of tailored communication to address the interests and cognitive frames of different stakeholders (Donaldson and Preston, 1995; Freeman, 1984). The findings of this research show that well-prepared, concise, and strategically framed materials enable executives to engage meaningfully within limited time windows, ensuring alignment with organisational priorities. This supports the literature on sensemaking and sense-giving (Weick, 1995; Maitlis and Lawrence, 2007), where framing builds shared understanding and commitment. This research extends the concept of depth (Jenkin et al., 2019) by showing that *Preparation and Framing* go beyond information richness. As it involves tailoring content to executive cognitive frames and strategic priorities, thereby enhancing the directionality of engagement and positioning Executive Managers as active co-creators of strategic meaning.

The literature on stakeholder theories recognises that influence and alignment are often achieved through informal networks and coalitions (Freeman, 1984; Ackermann and Eden, 2011). The *Networked Engagement* attribute surfaced in this research highlights how Executive Managers leverage both formal authority and informal relationships to mobilise their network of influence, act as a broker for consensus, and extend the reach of alignment work. These practices such as informal reach-outs and behind-the-scenes early socialisation briefings demonstrate how executives activate their influence networks to shape strategic outcomes. This theme adds practical depth to scope dimension of Jenkin et al.'s (2019) framework by illustrating how networked engagement operates in real-world settings. Executives use their networks not merely to disseminate information, but to manage risk, build coalitions, and drive strategic alignment.

Stakeholder theory posits that engagement is most effective when anchored in the interests and value perceptions of key actors (Freeman, 1984; Donaldson and Preston, 1995). This research defines the *Business Value Driven Dialogue* attribute to surface that executive engagement is most impactful when dialogue is consistently tied to business value, customer impact, and organisational performance. Such orientation ensures that alignment work remains relevant and compelling to executive stakeholders. This theme integrates all three dimensions of Jenkin et al.'s (2019) framework (i.e. timing, scope, and depth) by demonstrating that business value driven dialogue is not merely about

content. It is a mechanism for aligning engagement practices with strategic objectives, ensuring that interactions are relevant, actionable, and substantively linked to value creation (Luftman et al., 1999; Gerow, 2020).

By mapping these four themes to stakeholder-related theories and integrating Jenkin et al.'s (2019) framework, this research provides a nuanced and operationalised understanding of executive engagement in strategic alignment. It demonstrates that effective engagement is not simply a matter of structural presence or formal authority, but is enacted through deliberate practices of *Accessibility and Strategic Use of Executive Time*, *Preparation and Framing*, *Networked Engagement*, and *Business Value Driven Dialogue*. These findings extend stakeholder theory by offering concrete mechanisms and attributes that can be observed, measured, and managed in practice, and by clarifying how Executive Managers, as salient stakeholders, shape and are shaped by the strategic alignment process.

6.2.4 Executive Engagement in Strategic Alignment

As outlined in Chapter 2, prevailing strategic alignment models in the literature lack a process-oriented perspective. These models are predominantly engineering-driven, offering limited insight into the roles of strategists, the individuals involved, and the nature of their interactions throughout the alignment process. The sole exception is the model developed by Reich and Benbasat (2000), which explicitly addresses the social dimension of strategic alignment. The extant literature consistently recognises the importance of executive engagement in enabling strategic alignment between business and IS strategies, yet it remains under-theorised in terms of its actual mechanisms and effects (Chan and Reich, 2007a; Gerow, 2020).

Majority of the quantitative studies in the field operationalise stakeholder engagement through surface-level indicators such as IS manager's participation in business planning and business managers' participation in IS planning (Kearns and Sabherwal, 2007; Sabherwal and Kirs, 1994); IS manager presence in business planning (Lederer and Mendelow, 1989); collaborative relationship (Li et al., 2006); involving IS in strategy development, and close relationship between IS and business (Luftman et al., 1999); communication between business and IS executives and connections between

business and IS planning (Reich and Benbasat, 2000; Hussin et al., 2002); frequent relationship between IS and its users (Teo and Ang, 1999); open and trust-worthy communication, high reciprocal commitment and support, close cooperation and strong relationships between business and IS executives (Alaceva and Rusu, 2015); CIO and CEO engagement (Karahanna and Preston, 2013); and top management support and IS representation on the executive board (Schlosser et al., 2015). While these indicators are important, they do not fully capture the nuanced ways in which Executive Managers shape, enable, and benefit from the alignment process, and these approaches rarely address the substantive nature of engagement - specifically, the “inputs” Executive Managers provide (their contributions) and the “outputs” they receive (their gains) - throughout the strategic alignment process.

The qualitative research studies on stakeholder engagement surfaced the importance of stakeholder engagement and advised organisations to work toward minimising activities that inhibit alignment and maximise activities that bolster strategic alignment by improving relationships, working towards mutual cooperation and participation and maintain executive support (Luftman at al., 1999). The role of Executive Managers in strategic alignment has been widely acknowledged in the literature, yet the mechanisms of their engagement and the inputs and outcomes of their involvement have often been described in broad or structural terms.

The available theoretical frameworks focusing on stakeholder theory including the stakeholder conceptions defined by Jenkin et al. (2019) highlight the variability and complexity of executive involvement, but empirical studies still lack thick descriptions of how executives engage in practice and what they contribute to strategic alignment. Recent calls for future research in the literature advocate for a more holistic and granular treatment of executive engagement, emphasising the need to move beyond antecedents and enablers to examine the actual activities and mechanisms by which alignment is created and sustained (Karpovsky and Galliers, 2015). This research addresses these calls for more granular, activity-based analysis of executive engagement and provides a repeatable mechanism for linking executive action to alignment outcomes (Benbya et al., 2019; Ackermann et al., 2024).

By unpacking the agency and mechanisms of executive engagement, this research provides more granular, actionable models of stakeholder involvement (Schlosser et al.,

2015; Jenkin et al., 2019) thereby advancing both conceptual clarity and practical relevance in the strategic alignment literature. The findings of this research extend the understanding of executive engagement beyond structural indicators to encompass the lived experience of strategic alignment work, highlighting the iterative feedback loops and adaptive processes that sustain alignment over time. Drawing on stakeholder theory (Freeman, 1984; Mitchell et al., 1997), this research conceptualises Executive Managers as central actors whose power, legitimacy, and urgency drive the strategic alignment process. The findings demonstrate that executive engagement is enacted through *Executive Manager Engagement Cycle* comprising distinct but interrelated mechanisms - Strategic Enablement Cycle (inputs) and Strategic Empowerment Cycle (outputs). This research validates and further extends Ackermann et al.'s (2024) findings that executive engagement is not static or one-dimensional, but rather a dynamic and context-sensitive process.

To strengthen the theoretical positioning of the Executive Manager Engagement Cycle, the Researcher explicitly situates it in relation to two of the most influential perspectives on social alignment: Reich and Benbasat (2000) and Gerow et al. (2016). Reich and Benbasat (2000) conceptualise social alignment through antecedents such as shared domain knowledge, communication quality, and planning linkages, but their model does not specify how executives actually engage during alignment work, nor does it account for variation in engagement across different phases of strategy formation and execution. Similarly, Gerow et al. (2016) advance our understanding by showing with a meta-analysis study how social capital supports intellectual and operational alignment, yet their model remains relational rather than behavioural, and does not identify concrete, observable forms of executive engagement. The Executive Manager Engagement Cycle refines and extends these models by moving from antecedents and relational enablers to actual engagement mechanisms and by operationalising social alignment, empirically derived from longitudinal process data. It identifies distinct modes of engagement that operate differently across phases of the Strategic Alignment Process Framework. In doing so, it transforms the abstract concept of social alignment into a behaviourally explicit, temporally sensitive mechanism that explains not just whether executives are aligned socially, but how their actions actively produce and

reproduce alignment. Thus, the model stands as a refinement and extension rather than a replacement, offering a more granular, empirically grounded explanation of executive engagement that complements and deepens both aforementioned conceptualisations.

This research positions Executive Managers' contributions to strategic alignment process as a dynamic, iterative cycle of Strategic Enablement. The six central themes are identified within the *Strategic Enablement Cycle* as mechanisms - *Strategic Direction, Governance and Conflict Resolution; Strategic Refinement and Boundary Setting; Financial Alignment; Stakeholder Management and Influence; Strategic Communication and Framing; and Capability and Culture Building*. This research also positions Executive Managers' gains from strategic alignment process as a dynamic, iterative cycle of Strategic Empowerment as a core category. These core categories do not exist in isolation. Instead, they operate as interdependent mechanisms that continuously shape and reshape the trajectory of the strategic alignment process illustrating how executive agency is exercised not only in decision-making but also in shaping the content, boundaries, and legitimacy of strategic initiatives.

Conversely, the *Strategic Empowerment Cycle* captures the gains realised by Executive Managers through their engagement. The three central themes are identified within the *Strategic Empowerment Cycle* as mechanisms – *Adaptive Strategic Engagement; Strategic Authority and Confidence; and Strategic Delivery and Value Realisation*. These outcomes reflect the reciprocal nature of Executive Manager involvement, whereby participation in strategic alignment work enhances strategic literacy, leadership legitimacy, and the ability to deliver tangible business value.

In summary, this research provides a detailed mapping of Executive Manager engagement, clarifying how agency is exercised, how mechanisms operate across alignment phases, and how outcomes reinforce both individual and organisational capability. The "thick description" of *Executive Manager Engagement Cycle* moves beyond abstract models and surface-level indicators, offering concrete evidence of the mechanisms by which executive engagement shapes strategic outcomes. This contribution offers new insights for both scholars and practitioners seeking to design, manage, execute and evaluate executive involvement in strategic alignment process.

6.2.5 Financial Alignment: A New Alignment Type in Strategic Alignment Discourse

This research identified and conceptualised Financial Alignment as a distinct and recurring alignment type, grounded in both empirical evidence and theoretical development. The identification of Financial Alignment was not an initial focus or predetermined objective of this thesis; rather, it emerged organically through grounded analysis of Executive Manager engagement during strategic alignment episodes. Financial Alignment is defined as the evaluative and integrative process by which Executive Managers scrutinise, justify, and align IS initiatives with organisational budgetary frameworks, funding cycles, and value creation objectives. The empirical findings show that financial alignment is not simply a by-product of other alignment types, but a necessary and ongoing domain of alignment work, especially in regulated utility environments where financial constraints and accountability are paramount.

Earlier in Chapter 2, the Researcher proposed three key business value domains of IS - Productivity, Performance, and Predictability - as the core dimensions through which IS delivers value to organisations. Productivity reflects internal value creation and is typically associated with reducing operational costs (Drucker, 1966). Performance concerns the effectiveness with which a person, system, or asset completes a task or activity - achieving more with the same or fewer resources (Neely et al., 1995). Predictability refers to the ability to anticipate outcomes or events, indirectly enhancing both productivity and performance (Acharya et al., 2018; Hou, 2012; Popovič et al., 2010). Value-justification discussions during strategic alignment primarily focus on these three domains, evaluated against the anticipated costs and benefits of the future state enabled by IS initiatives.

The strategic alignment literature recognises a range of alignment types that focus on different dimensions of the relationship between business and IS strategies. Intellectual alignment refers to the fit between business and IS strategies, ensuring mutual support and shared objectives (Reich and Benbasat, 1996, 2000; Chan and Reich, 2007a; Gerow et al., 2014). While intellectual alignment secures strategy fit, it is Financial Alignment that exposes affordability contingencies and stimulates consequential design improvement, thereby mediating between social consensus and executable strategic choices as explained in Section 6.2.6 of this thesis.

Social alignment captures the state of shared understanding, trust, and commitment between business and IS executives (Reich and Benbasat, 2000; Gerow et al., 2016; Wagner et al., 2014). Operational alignment describes the link between organisational infrastructure and processes and IS infrastructure and processes (Henderson and Venkatraman, 1993, 1999; Luftman et al., 1999). Cross-domain alignment captures the multi-directional alignment across business and IS domains, including business strategy to IS infrastructure and vice versa (Henderson and Venkatraman, 1993; Gerow et al., 2015). Business and IS strategy alignment focuses on internal consistency within business or IS domains (Henderson and Venkatraman, 1993; Luftman et al., 1999). While these types provide a robust foundation, the academic literature has typically treated financial considerations as antecedents, enablers, part of operational alignment, performance metrics, or outcomes of strategic alignment; the literature have not recognised “financial alignment” as a formal, standalone alignment type within the established typologies.

A notable blind spot in the IS strategic alignment literature is the predominance of quantitative approaches that correlate alignment with firm performance, often measured through financial results (Chan and Reich, 2007a; Gerow et al., 2014; Tallon et al., 2016). While these studies have demonstrated financial benefits associated with alignment, they have tended to overlook the iterative, dialogic, and context-bound nature of alignment work - especially the financial scrutiny and negotiation over costs, benefits, affordability, and prioritisation that occur during executive decision-making throughout the strategic alignment process. As a result, financial aspect is frequently treated as a constraint, enabler or a variable rather than as an active, mediating mechanism within the strategic alignment process.

The extant IS literature includes adjacent sub-domains concerned with realising benefits from IS investments (Ward and Daniel, 2012) and IS investment evaluation (Farbey, Land and Targett, 1992). It also encompasses IS governance (Weill and Ross, 2004) and further IS investment evaluation perspectives (Farbey et al., 1992; Irani and Love, 2008). The intention of this proposal to consider Financial Alignment as a distinct alignment type is to bring capital allocation and value-realisation logics into the strategic alignment discourse while preserving clear construct boundaries without conflating it with intellectual or operational alignment or with financial performance as an outcome.

Whereas IS governance emphasises decision rights and structures (Weill and Ross, 2004), investment evaluation focuses on techniques and criteria (Farbey et al., 1992; Irani and Love, 2008), and benefits realisation addresses post-investment value tracking (Ward and Daniel, 2012), Financial Alignment conceptualises the iterative alignment work through which affordability, funding structures, and value justification and value realisation are reconciled with strategic intent throughout the strategic alignment process.

In practice, Executive Managers engage in Financial Alignment through recurring mechanisms and routines that embed financial discipline into strategic dialogue. Key mechanisms and practices observed include: rigorous commercial scrutiny and value justification for IS initiatives; active interrogation of costs, benefits, and return on investment; embedding financial discipline and accountability into strategic dialogue; aligning the timing and sequencing of initiatives with funding availability and cycles; and institutionalising cost awareness, financial viability and value realisation as a result of strategy design and execution as ongoing criteria within the strategic alignment process. These practices were pronounced in regulated utility environments, where the salience of affordability and accountability is heightened.

This research conceptualises Financial Alignment as a distinct, recurring alignment type with its own artefacts, mechanisms, and executive engagement practices - complementing intellectual, social, and operational alignment. Grounded in empirical evidence from Executive Engagement, including regulated utility contexts where affordability and accountability are paramount, the construct provides actionable detail on how financial scrutiny, value justification, and budgetary alignment are operationalised within alignment work. Recognising Financial Alignment as a core alignment type enables organisations to better manage the risks and opportunities associated with IS investments, to shape sequencing and portfolio priorities in line with funding realities, and to ensure not only coherence and capability, but also measurable business value and financial sustainability.

The introduction of Financial Alignment as a distinct alignment type also reinforces the importance of the business value of IS. Financial Alignment, as conceptualised in this section, builds on contingency theory (Burns and Stalker, 1961; Bergeron et al., 2004) by ensuring that strategy design is continually adapted to real-world financial constraints

and opportunities, and strategy execution evaluated based on value realisation rather than being treated as a static constraint or afterthought. This perspective positions financial alignment as a dynamic, context-sensitive mechanism that actively shapes strategic alignment process.

The Researcher acknowledges that thoughtful critiques may regard financial alignment as already encompassed by operational or intellectual alignment, or as a component of performance management - functioning primarily as a constraint or enabler rather than as a discrete type. In this study, the Researcher seeks to respond to such views by substantiating evidence of the active, iterative, and mediating financial work through which strategic choices, stakeholder engagement, communication and framing, decision making and value realisation are shaped during alignment episodes. Moreover, given that financial alignment has been less fully elaborated and formally theorised in extant models, the Researcher proposes that it warrants consideration as a peer alignment type, positioned alongside, rather than in competition with, established categories.

Financial Alignment complements and extends established alignment types by foregrounding the financial dimension as a recurring, executive-driven alignment process. By articulating its mechanisms and boundary conditions, the study advances both theoretical understanding and practical management of strategic alignment, offering a more holistic and actionable model for organisations seeking to maximise the value of their IS investments while maintaining financial defensibility and sustainability.

6.2.6 Executive Manager Engagement in Creating and Sustaining Strategic Alignment Over Time

This section pursues two objectives. First, it consolidates extant typologies of strategic alignment by briefly rehearsing the principal categorisations in the literature, thereby establishing a common vocabulary and problematising areas of conceptual overlap. Second, it overlays these established types including the proposed Financial alignment as a distinct type - onto the proposed theoretical architecture - the Strategic Alignment Lifecycle Loop and the Executive Manager Engagement Cycle - to provide a holistic, process-and-agency view of how alignment is created, enacted, and sustained.

As previously outlined in Section 2.3.2.2 of this thesis, strategic alignment is a critical concept in the field of IS and has been extensively studied in the literature, with two distinct types (or dimensions) of categorisation for strategic alignment identified. One is based on the Strategic Alignment Model (SAM) of Henderson and Venkatraman (1993), outlining six dimensions: business alignment, IT alignment, intellectual alignment, operational alignment, and two cross-dimension alignments (Henderson and Venkatraman, 1993; Gerow et al., 2015; Queiroz et al., 2020). Another categorisation, rooted in Reich and Benbasat (1996, 2000), distinguishes between intellectual alignment (shared methodologies, data, and techniques) and social alignment (actors, involvement, communication, and decision-making), echoing Horovitz's (1984) original classification.

The "engagement" term is inconsistently defined and operationalised, often serving as an umbrella term for participation, interaction, communication, social capital, collaboration, trust, and partnership (Reich and Benbasat, 2000; Karahanna and Preston, 2013; Manfreda and Stemberger, 2019; Tai et al., 2019). Social alignment, in particular, is intangible and under-theorised, with recent studies calling for more detailed, mechanism-level research on how engagement actually shapes alignment outcomes (Benbya et al., 2019; Gerow, 2020; Kujala et al., 2022).

Intellectual alignment complements social alignment in dynamic environments to achieve sensing and responding (Zhou et al., 2017; Hu, Wang and Liang, 2023) and social alignment is an antecedent of intellectual alignment and its effects on organisational outcomes are fully mediated by intellectual alignment (Preston and Karahanna, 2009a; Gerow et al., 2016).

The importance of investigating social dimension of strategic alignment was first pointed out by Reich and Benbasat (2000), their research outlined that achieving the intellectual dimension of alignment is often hindered by poor alignment between people. Social alignment is intangible (Gerow, 2020) and Gerow et al. (2016) suggest that when executives are socially aligned, they are able to demonstrate higher levels of social capital and engagement to ensure appropriate positioning and use of IS within the organisation. It is still unclear how social alignment impacts different strategic alignment types (Gerow, 2020) or how social alignment can be facilitated given its complexity (Ullah and Lai, 2013).

As outlined in Section 6.2.2 of this thesis, this research extends the co-evolutionary perspective in the strategic alignment literature by offering a detailed, processual view of how alignment unfolds in practice. By introducing the *Strategic Alignment Lifecycle Loop* grounded on the detailed definition of the *Strategic Alignment Process Framework*, this study provides a concrete framework that captures the iterative, feedback-driven nature of alignment work. It advances the literature by articulating the stages, artefacts, and collaborative activities that underpin alignment, offering both theoretical depth and practical relevance for understanding how organisations initiate, adapt, and sustain strategic alignment over time.

As outlined in Sections 5.3 and 6.2.4 of this thesis, this research provides a detailed mapping of Executive Manager engagement, clarifying how agency is exercised, how mechanisms operate across alignment phases, and how outcomes reinforce both individual and organisational capability. The “thick description” of *Executive Manager Engagement Cycle* moves beyond abstract models and surface-level indicators, offering concrete evidence of the mechanisms by which executive engagement shapes strategic outcomes.

As an amalgamated view of the key theoretical contributions as outlined in Section 6.1 and illustrated on the proposed theoretical framework in Section 5.3.2 of this thesis - *Strategic Alignment Lifecycle Loop* and *Executive Manager Engagement Cycle* - this research provides a comprehensive explanation of how executive engagement drives and sustains strategic alignment, and how alignment activities are structured and enacted over time. The proposed theoretical framework positions strategic alignment at the intersection of two reinforcing cycles: the Executive Manager Engagement Cycle (Strategic Enablement Cycle for inputs and contributions and Strategic Empowerment Cycle for outputs and gains) and the lifecycle loop of strategic alignment (Strategic Sensing, Strategic Interpretation, and Strategic Enactment) operating at the epicentre of Strategic Alignment Process Framework. The dynamic interaction between these two cycles ensures that strategic alignment is both structurally sound and organisationally embedded, capable of delivering sustained business value over time.

Reflecting on the alignment types that were outlined at the beginning of this section, the narrative below takes another conceptual leap, as outlined in the diagram below, within the following four steps in order to articulate further findings of this

research. In the **first step**, the Researcher positions the Strategic Alignment Lifecycle Loop as the overarching mechanism that drives Intellectual Alignment between business and IS domains. It is achieved through the deliberate orchestration of structured interactions that foster a common knowledge base across both domains.

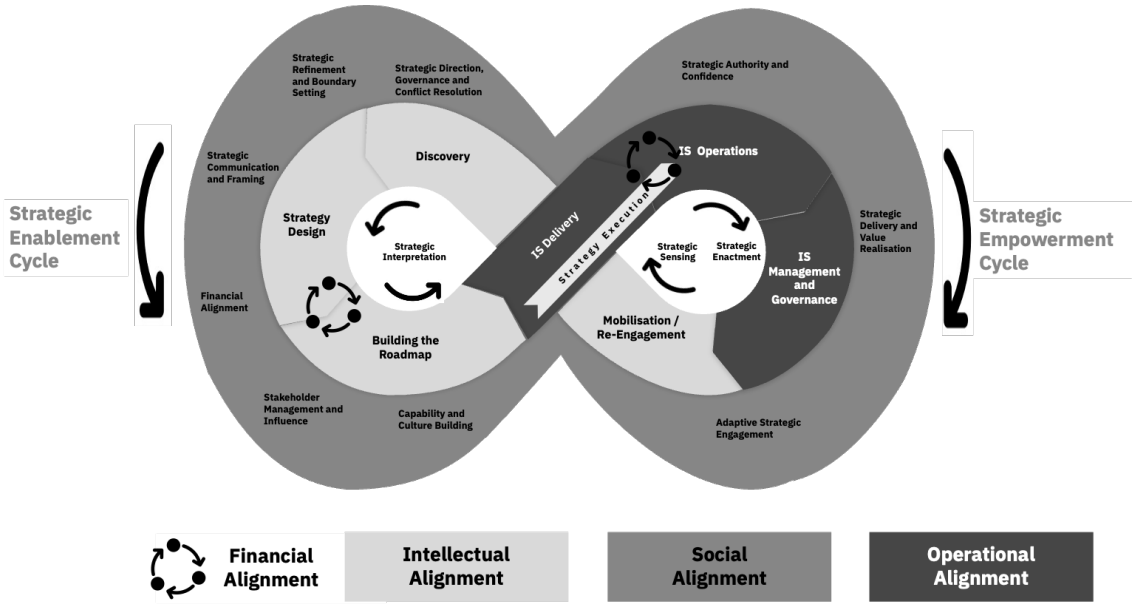


Figure 95 - Reinforcing Dynamics of Intellectual, Financial, Social and Operational Alignment types

At the epicentre of the Strategic Alignment Lifecycle Loop lies the Strategic Alignment Process Framework, which provides the structured steps necessary to facilitate a "plan-think-and-design-together" process for the phases across *Mobilisation*, *Discovery*, *Strategy Design* and *Building the Roadmap*. This confined scope is where the *Strategic Interpretation* feedback loop operates within the Strategic Alignment Lifecycle loop, as shown on the left-hand side of the diagram above. This first four phases outlined in the Strategic Alignment Process Framework (the left-hand side of the diagram above) is focused on Strategic Interpretation and operationalises *Intellectual Alignment* by defining the harmonisation of insights, clarifying expectations, consolidating facts for current state analysis, drafting, discussing and finalising future state and building the roadmap for IS initiatives to achieve the mutually agreed future state. In practical terms, this research offers a task-oriented method for achieving intellectual alignment. The "living" outputs of this process - such as documented decisions and IS artefacts - serve as tangible evidence of intellectual alignment, ensuring traceability and reinforcing the legitimacy of strategic choices and direction set out.

In the **second step**, the Researcher positions the Strategy Execution phase of the Strategic Alignment Lifecycle Loop (the right-hand side of the diagram above) as the overarching mechanism that drives *Operational Alignment* between business and IS domains. It is achieved through the deliberate orchestration of structured interactions that foster a common knowledge base across both domains. At the epicentre of the Strategic Alignment Lifecycle Loop lies the remaining part of the Strategic Alignment Process Framework, which provides the structured steps necessary to facilitate a "build-support-and-monitor-together" process for the *Strategy Execution* phase. This confined scope is where the *Strategic Enactment* and *Strategic Sensing* feedback loop operates within the Strategic Alignment Lifecycle loop, as shown on the right hand side of the diagram. The Strategy Execution phase of the Strategic Alignment Process Framework consists of detailed planning and delivery of initiatives as part of IS Delivery as well as the delivery of IS Operations, and management, support and maintenance of the evolving technology landscape, and overarching IS Management and Governance related activities. The day-to-day interactions with all of the levels of business and IS functions, in other words - of Ciborra (1997, p. 78) "worldly existence of people at work and their small and big "dramas" actually happens in this phase.

While the intellectual and operational alignment can be formalised through the strategic alignment process and associated IS artefacts aligned with the Strategic Alignment Process Framework operating under the Strategic Alignment Lifecycle Loop, social alignment emerges from the dynamic interactions, influence patterns, and engagement behaviours of organisational actors. To conceptualise this phenomenon, the Researcher positions the *Executive Manager Engagement Cycle* as the overarching mechanism that drives *Social Alignment* as the **third step**. Although the empirical analysis focused on Executive Managers, their engagement does not occur in isolation. Their actions and reactions cascade through the organisational hierarchy, influencing teams and shaping collective behaviours. This cycle, therefore, represents the observable indicators of how social alignment is constructed over time - through iterative interactions, negotiation of meaning, and the reinforcement of shared commitments.

Given that the strategic alignment literature lacks both a process model and a thick description to account for social alignment - and considering that this research offers only a thick description - the Researcher argues that the inherently complex and

interaction-driven nature of social alignment renders a process model inadequate. Therefore, the Executive Manager Engagement Cycle is conceptualised as a collective set of “breadcrumbs” that illustrate how social alignment emerges, is constructed, and sustained. This research reveals that social alignment is cultivated through deliberate forms of engagement (i.e. Governance, Discussion, and Communications) with the executive engagement attributes as outlined in Section 6.2.3 - each contributing to the development of shared understanding, trust, and commitment across organisational boundaries. Executive Managers play a pivotal role in bridging cognitive and relational divides, facilitating the translation of strategic intent into actionable plans, and ensuring that alignment is both intellectually robust and socially embedded.

Together, these three dimensions - intellectual, social, and operational alignment - are mutually reinforcing. Intellectual alignment provides the cognitive and structural foundation for strategic coherence, social alignment ensures the relational and behavioural conditions necessary for collaboration and trust, and operational alignment secures the process, technological, and infrastructural fit required for consistent execution and value realisation.

Finally, as the **fourth step**, the proposed new alignment type - Financial Alignment - operates at the intersection of social and intellectual alignment at two critical junctures in the Strategic Alignment Lifecycle Loop, as illustrated on the diagram above (Figure 95). The first intersection occurs at the transition from the Strategy Design phase to the Building the Roadmap phase. Here, discussions of financial scrutiny and value justification, often considered part of social alignment (i.e., building shared understanding and trust among stakeholders), become pivotal. These conversations foster a common understanding of funding structures, budget allocations, and cost–value analysis specific to strategy design.

However, the outcomes of these discussions directly influence the agreed strategy design and the IS initiatives that emerge at the end of the Building the Roadmap phase. If a distinct financial alignment lens is absent, and these discussions do not result in a robust shared understanding of financial and affordability viability, subsequent failure signals will undermine the trust and shared understanding established through social alignment. This risk underscores the need to treat financial alignment as a distinct alignment type and to recognise it as a mechanism that directly influences intellectual

alignment (i.e. the coherence and viability of strategic choices). This perspective on Financial Alignment is consistent with, and extends, contingency theory, which holds that organisational effectiveness depends on the fit between strategy, structure, and contextual factors such as resources and environment (Burns and Stalker, 1961; Bergeron et al., 2004). By foregrounding financial alignment as a distinct, iterative mechanism, this research demonstrates how business and IS teams are prompted to adapt and improve their strategy design in response to financial contingencies - such as affordability, funding cycles, and resource constraints. Rather than treating financial considerations as static constraints, financial alignment acts as a dynamic feedback loop, driving the re-examination of current state analysis, the exploration of alternative designs, and the redefinition of cost and value justifications. In this way, Financial Alignment operationalises the contingency-sensitive adaptation of IS strategy, ensuring that alignment is not only theoretically coherent but also viable and value-maximising in practice. This approach bridges classic contingency theory and more recent processual views, highlighting the importance of ongoing adaptation and learning in achieving and sustaining strategic alignment.

The second intersection arises, with a time lag, as the Strategic Interpretation step within the Strategic Alignment Feedback Loop concludes and the Strategy Execution phase begins. During IS Delivery and IS Operations stages of the Strategy Execution phase, cost and value justifications are updated and re-validated based on more granular planning and analysis. If Financial Alignment is not explicitly considered at this stage, and financial viability is lacking, failure signals will negatively impact both social and intellectual alignment - eroding trust and undermining the legitimacy and confidence of the Strategic Empowerment Cycle. Financial Alignment acts as a “glue” between intellectual and social alignment, balancing legitimacy and confidence within the broader Strategy Enactment step within the Strategic Alignment Lifecycle Loop. By foregrounding Financial Alignment as a distinct type, this research extends prior models (Henderson and Venkatraman, 1993; Reich and Benbasat, 2000; Chan and Reich, 2007a; Gerow et al., 2016; Gerow, 2020) and provides a more nuanced explanation of how alignment is created, sustained, and, when necessary, recalibrated in practice. Financial alignment needs to be maintained throughout the Strategy Execution phase, as the IS initiatives are delivered, and supported by IS operations, the expectations on value realisation needs

to be managed and governed. The outcome of this activity provides a clear view on the realised value which was previously committed at the time of IS strategy approval, and this has a reinforcing impact on operational, social and intellectual alignment in the next recurrence of the strategic alignment loop.

In addition to its mediating role, considering Financial Alignment as a distinct type fundamentally changes how business and IS teams approach strategy design. When financial alignment is foregrounded, it does not merely serve as a check or constraint at the end of the design process. Instead, it acts as an iterative driver that prompts teams to revisit the current state analysis, reconsider design options, and re-define cost and value justifications. Even when a proposed solution appears to address all problem statements and requirements (as documented in the "Key Exam Questions" IS artefact), the explicit application of a Financial Alignment lens can reveal that the strategy design is not yet optimal or viable. This realisation encourages business and IS teams to explore alternative solutions and refine their proposals, ensuring that the final strategy is not only aligned with business objectives but also delivers maximum value within real-world constraints. In this way, Financial Alignment is not simply about "checks and balances"; it actively drives the improvement of strategy design and future state architecture, enhancing the value of IS to the organisation. While intellectual alignment ensures that business and IS strategies are coherent, it does not, on its own, guarantee the most value-creating or feasible design. Financial alignment, therefore, acts as a catalyst for strategic learning and optimisation, bridging the gap between what is desirable and what is achievable, and ensuring that alignment is both robust and value-driven. This perspective extends prior models by positioning financial alignment as a generative, design-improving mechanism, rather than a passive constraint or afterthought.

By integrating these dimensions with the amalgamation of *Strategic Alignment Lifecycle Loop* and *Executive Manager Engagement Cycle*, this research extends the literature and offers a more granular, actionable understanding of how alignment is created and sustained over time.

Furthermore, the research highlights the reciprocal relationships across intellectual, financial, social, and operational alignment types. Social alignment, fostered through *Strategic Enablement Cycle* supported with Accessibility and Strategic Use of Executive time, Preparation and Framing, Networked Engagement and Business

Value-Driven Dialogue, enables the co-creation of IS artefacts and the validation of strategic direction via the *Strategic Alignment Lifecycle Loop*. In turn, intellectual and financial alignment provide the cognitive, structural, and financial foundations for strategic alignment through the Strategic Alignment Lifecycle Loop and the Strategic Enablement Cycle, thereby reinforcing the Strategic Alignment Process Framework. Operational alignment converts this shared and mutually agreed strategic intent, via the Strategic Empowerment Cycle, into routinised execution by ensuring fit between business processes, organisational arrangements, and IS landscape; through delivery and operations performance, it generates feedback that informs the Strategic Enablement Cycle and subsequent iterations of the Strategic Alignment Lifecycle Loop.

6.2.7 Synthesis: Contributions and Points of Departure

The preceding analysis demonstrates that this research both confirms and extends key themes in the strategic alignment literature, while also addressing persistent gaps and offering new directions for inquiry. By conceptualising strategic alignment as a dynamic, processual phenomenon, this study reinforces the shift in the literature from static models toward iterative, adaptive frameworks aligned with the co-evolutionary perspective and Enterprise Architecture view in strategic alignment literature. The empirical mapping of alignment phases, stages and IS artefacts, and feedback loops provides the actionable detail that scholars such as Orlikowski and Iacono (2001), Moeini et al. (2019) and Karpovsky and Galliers (2015) have called for, bridging the divide between abstract theorising and practical application.

A significant contribution of this research lies in its granular operationalisation of strategic alignment process and the engagement with Executive Managers. By unpacking the mechanisms of executive involvement - across strategic enablement and empowerment cycles - the study clarifies how shared understanding, trust, and strategic fit are co-created and sustained in practice. This addresses the long-standing challenge of translating relational constructs into observable, repeatable processes, and demonstrates the mutually reinforcing nature of social and intellectual alignment as theorised by Gerow et al. (2016). The dual-cycle model of strategic enablement and empowerment further advances the literature by illustrating the reciprocal value

exchange between Executive Managers and the alignment process, providing a novel lens for understanding both contribution and gain.

The research also advances the literature on executive engagement by moving beyond structural proxies and offering a detailed account of agency, mechanisms, and outcomes. The identification of specific engagement forms, mapped to alignment phases, stages and artefacts, provides a template for both empirical investigation and managerial action. The dual-cycle model of enablement and empowerment highlights the reciprocal benefits of executive involvement, positioning engagement as both a driver and a beneficiary of strategic alignment.

At the same time, the findings surface points of departure and unresolved tensions in the literature. The study challenges the adequacy of static or one-dimensional models of alignment, demonstrating the need for frameworks that accommodate complexity, iteration, and feedback. It also highlights the importance of artefact content and collaborative activity - areas often overlooked in favour of high-level constructs or outcome measures.

Another key point of departure is the integration of artefacts, activities, and content into alignment theory. This research responds directly to calls for more actionable and granular models by documenting the phases, stages, and artefacts involved in strategic alignment work. The findings show that artefacts are not merely outputs, but central instruments for negotiation, communication, and operationalisation of alignment – also the evidence of intellectual alignment - thus extending the practical relevance of strategic alignment process framework.

Most notably, this research observes Financial Alignment as a distinct and recurring alignment type. While financial considerations have traditionally been treated as antecedents or outcomes in alignment models, this study demonstrates that financial alignment is a structured, ongoing process with its own mechanisms, artefacts, and executive engagement practices. By formalising Financial Alignment as a core alignment type, the research fills a critical gap in both theory and practice, enabling organisations to better manage the risks and opportunities associated with IS investments and ensuring that strategic alignment delivers measurable business value and financial sustainability.

The study also synthesises and extends stakeholder theory in the context of IS strategic alignment. By mapping executive engagement attributes to the scope, depth, and timing dimensions of Jenkin et al. (2019), and providing thick empirical description of how these are enacted, the research offers a more nuanced and operationalised understanding of stakeholder engagement. This integration clarifies how Executive Managers, as salient stakeholders, shape and are shaped by the alignment process, and provides a template for both empirical investigation and managerial action.

Crucially, this research provides a "thick description" of Executive Manager engagement, clarifying how agency is exercised, how mechanisms operate across alignment phases, and how outcomes reinforce both individual and organisational capability. The *Executive Manager Engagement Cycle* moves beyond abstract models and surface-level indicators, specifying the forms (Governance, Discussion, Communications), phases, stages, IS artefacts and mechanisms by which executive engagement shapes strategic outcomes.

The proposed theoretical framework positions strategic alignment at the intersection of two reinforcing cycles: the *Executive Manager Engagement Cycle* (encompassing both strategic enablement and empowerment) and the *Strategic Alignment Lifecycle Loop* (Strategic Sensing, Strategic Interpretation, and Strategic Enactment) that operates at the epicentre of *Strategic Alignment Process Framework*. The dynamic interaction between these cycles ensures that strategic alignment is both structurally sound and organisationally embedded, capable of delivering sustained business value.

Intellectual alignment is achieved through the deliberate orchestration of structured interactions that foster a common knowledge base across business and IS domains, operationalised via the Strategic Alignment Process Framework. In contrast, social alignment is constructed through the dynamic, networked engagement of Executive Managers, whose actions cascade through the organisation to build shared understanding, trust, and commitment. Together, these dimensions are mutually reinforcing: intellectual alignment provides cognitive and structural coherence, financial alignment provides value of IS and funding arrangements while social alignment ensures the relational and behavioural conditions necessary for sustained execution.

By integrating these dimensions, this research extends the literature and offers a more granular, actionable understanding of how alignment is created and sustained over time. The framework not only advances theory but also provides a practical roadmap for executive teams seeking to structure, enact, and sustain strategic alignment in complex organisational environments.

In summary, this research contributes a robust, empirically grounded framework that integrates process, content, engagement, and financial perspectives on strategic alignment. It offers new insights into the mechanisms by which alignment is created and sustained, and provides a foundation for future research to further explore the interplay of social, intellectual, financial, operational and artefactual dimensions in complex organisational contexts. These points of departure collectively advance both the theoretical understanding and practical planning and management of strategic alignment, positioning this research as a significant contribution to the field.

6.3 Theoretical Contributions

The aim of research is to contribute to academic literature and this section outlines those contributions to theory on strategic alignment. This research investigated the creation and sustenance of strategic alignment between business and IS strategies in the network utility organisations in Ireland. This research makes several significant theoretical contributions to the field of strategic alignment, executive engagement, and IS strategy.

This section provides detailed explanation of the theoretical contributions with their linkage to the literature and the gaps that this research has addressed.

The contributions outlined below are not separate standalone contributions, but rather interlocking components of a single, coherent theoretical advancement as proposed in this thesis. At the core lies the *Strategic Alignment Process Framework* (Section 6.3.1.1), which is the primary and most substantial contribution. The *Strategic Alignment Lifecycle Loop* (Section 6.3.1.2) and the *Executive Manager Engagement Cycle* (Section 6.3.1.3) are extensions of this core framework: they refine and deepen the explanation by articulating the dynamic mechanisms and engagement behaviours that

underpin the strategic alignment process. Likewise, the proposal on *Financial Alignment* (Section 6.3.2.1) is not a disconnected addition but a refinement prompted directly by empirical evidence. In this way, the contributions are layered rather than parallel - each builds on the previous one, collectively forming a more complete and empirically grounded explanation of how strategic alignment is created and sustained in practice which is the proposed answer to the main research question that this thesis aims to provide. This integrated structure ensures that the contributions are not over-extended but logically connected refinements of a single theoretical contribution.

6.3.1 Primary Contributions

The primary theoretical contributions constitute the core set of conceptual developments, explanatory mechanisms, and integrative theoretical insights that directly address the predefined research objectives. These contributions were intentionally pursued from the outset of the study and were shaped by a systematic engagement with the empirical data and the overarching research objectives. They represent the principal theoretical advancements that the research set out to achieve, offering novel explanations that respond explicitly to the research question. By grounding these contributions in rigorous analysis and linking them explicitly to the stated objectives, the research delivers its foundational theoretical value. The primary contributions established through this thesis are detailed below.

6.3.1.1 Strategic Alignment Process Framework

A central theoretical contribution of this research is the operationalisation of strategic alignment through a detailed phase-stage-artefact architecture that is provided in the Strategic Alignment Process Framework. While the importance of aligning business and IS strategies has long been recognised (Henderson and Venkatraman, 1993; Reich and Benbasat, 2000; Chan and Reich, 2007a), the literature has persistently lacked actionable models that specify the concrete activities, artefacts, and decision points that constitute alignment work in practice. Strategic alignment scholars have consistently urged the field to move beyond static “fit” to explanatory and dynamic accounts of the

alignment work (Hiekkanen et al., 2013; Luftman et al., 2017; Dairo et al., 2021; Őri and Szabó, 2024; Pelletier and Raymond, 2024), open the black box of practice by studying what actors actually do (Karpovsky and Galliers, 2015; Moeini et al., 2019; Sinz and McDonagh, 2019; Hughes and McDonagh, 2021), and explore the socio-technical mechanisms and dynamics of strategic alignment (Merali et al., 2012; Gerow et al., 2014; Jenkin et al., 2019; Amarilli et al., 2023).

Most foundational models, such as the Strategic Alignment Model (SAM), offer high-level representations of domains and linkages but remain static and abstract, providing little guidance on the actual process by which alignment is achieved (Chan and Reich, 2007a; Dairo et al., 2021; Őri and Szabó, 2024). Recent reviews have highlighted that even widely cited frameworks have not evolved to include granular process steps or artefact definitions, leaving a gap in operational guidance for both scholars and practitioners (Dairo et al., 2021; Őri and Szabó, 2024).

Unlike previous models and frameworks available in the strategic alignment literature that remain abstract or static, the *Strategic Alignment Process Framework* breaks down strategic alignment into observable phases, stages, and tangible IS artefacts that serve as boundary objects for shared understanding and decision-making. By doing so, it addresses a long-standing gap in the literature, offering a replicable template for how intellectual, social and operational alignment are constructed and evidenced in real organisational contexts. Crucially, it catalogues the IS artefacts produced at each stage, and demonstrates how these artefacts serve as boundary objects that facilitate shared understanding, decision-making, and accountability across diverse stakeholder groups. This approach responds directly to calls in the literature to "open the black box" of alignment work and to provide "thick descriptions" of the routines, artefacts, and interactions that underpin successful alignment.

Moreover, the phase-stage-artefact architecture is grounded in process and practice perspectives that emphasise the sequencing and structuring of activities connecting strategic intent to operational realities (Mintzberg, 1987; Jarzabkowski et al., 2007; Morton et al., 2022). It also aligns with the tradition of process models in IS strategy and planning (King, 1988; Salmela et al., 1996; Mentzas, 1997), but advances the field by integrating the role of artefacts as both outputs and mediators of alignment. By specifying not only what happens in each phase but also who is involved, what

artefacts are created, and how these artefacts are iteratively refined, the research moves beyond normative prescriptions (Walsham and Waema, 1994) and provides a practical template for enacting alignment in real-world settings.

This contribution lays the foundation for more robust empirical research and more effective management interventions by offering a replicable, evidence-based framework for diagnosing, designing, and improving alignment practices. Recent syntheses in the literature reiterate these agendas and call for integrative, mechanism-aware explanations of how alignment is built, sustained, and recovered in context. This research marks a humble advance in the theorisation of how alignment is designed and operationalised in complex, regulated, multi-stakeholder environments, and directly addresses the persistent call in the literature for actionable, artefact-centred process models of strategic alignment.

6.3.1.2 Strategic Alignment Lifecycle Loop

A major theoretical advance of this research is the reframing of strategic alignment as a dynamic, cyclical, and co-evolutionary lifecycle loop. Traditional models in the IS literature, such as the Strategic Alignment Model (SAM) (Henderson and Venkatraman, 1993), have been critiqued for their static, linear assumptions - treating alignment as a fixed end-state or a one-off achievement (Chan and Reich, 2007a; Luftman et al., 2017).

Recent scholarship has called for process-oriented and co-evolutionary perspectives that recognise alignment as an ongoing, adaptive negotiation between business and IS domains (Benbya and McKelvey, 2006; Peppard and Breu, 2003; Hiekkanen et al., 2013; Amarilli et al., 2023). This study responds to these calls by theorising the *Strategic Alignment Lifecycle Loop* which comprise Strategic Sensing, Strategic Interpretation, and Strategic Enactment - each operating within a continuous feedback cycle centred on the Strategic Alignment Process Framework.

The lifecycle approach is grounded in process research principles that emphasise sequencing, temporal bracketing, and iterative recalibration (Pettigrew, 1990; Langley, 1999). It also draws on sensemaking theory (Weick, 1995) and organisational learning cycles (Crossan and Berdrow, 2003), explaining how organisations repeatedly re-baseline assumptions, recalibrate priorities, and re-align IS capabilities with evolving

business strategies and external pressures. The empirical evidence from regulated, asset-intensive energy network utility contexts in this study demonstrates that such iterative recalibration - triggered by regulatory cycles, affordability constraints, and technological change - outperforms one-off planning and enables organisations to remain agile and resilient (Merali et al., 2012; Yeow et al., 2018; Amarilli et al., 2023).

By formalising the Strategic Alignment Lifecycle Loop, this research advances the field from end-state "fit" metaphors towards a mechanism-aware, process theory of alignment that is portable across episodes and sectors. It provides a robust explanation for how alignment is sustained, adjusted, and adapted in response to both internal and external change, and offers a practical framework for IS and business leaders to structure and manage alignment as a living, evolving process rather than a static goal. In doing so, it answers long-standing calls in the literature for dynamic, co-evolutionary models that capture the complexity, fluidity, and responsiveness required for effective strategic alignment in contemporary organisations (Benbya and McKelvey, 2006; Merali et al., 2012; Hiekkanen et al., 2013; Yeow et al., 2018; Amarilli et al., 2023; Benbya, Leidner and Preston, 2023; Pelletier and Raymond, 2024).

6.3.1.3 Executive Manager Engagement Cycle

A significant theoretical contribution of this research is the development of a mechanism-level account of social alignment, operationalised through the *Executive Manager Engagement Cycle*. While the literature has long recognised the importance of social alignment - defined as the shared understanding, trust, and commitment between business and IS executives (Reich and Benbasat, 2000; Gerow et al., 2016) - most of the previous studies have relied on structural proxies such as the presence of IT managers in business planning or the frequency of cross-functional meetings (Lederer and Mendelow, 1989; Kearns and Sabherwal, 2007; Schlosser et al., 2015). These approaches, while valuable, have been critiqued for offering only a surface-level view of engagement, failing to capture the nuanced, micro-level mechanisms by which social alignment is actually produced and sustained (Jenkin et al., 2019). It is also noted that there are no studies found that explores the impact of social alignment on other alignment types (Gerow, 2020).

This research addresses that gap by providing a thick, empirically grounded description of how executive engagement operates as a dynamic, iterative cycle. The findings clarify the central role of Executive Managers not only as decision-makers but as active agents who shape, validate, and realise strategic alignment. The *Executive Manager Engagement Cycle* theorises two interlocking mechanisms: Strategic Enablement Cycle (inputs) and Strategic Empowerment Cycle (gains). Strategic Enablement Cycle encompasses six domains of executive input - *Strategic Direction, Governance and Conflict Resolution; Strategic Refinement and Boundary Setting; Financial Alignment; Stakeholder Management and Influence; Strategic Communication and Framing; and Capability and Culture Building*. These domains detail the cognitive, relational, and political work that executives perform to build and reinforce social alignment, consistent with social capital theory (Nahapiet and Ghoshal, 1998) and the literature on stakeholder engagement (Freeman, 1984; Jenkin et al., 2019).

Strategic Empowerment Cycle, in turn, captures the outcomes and gains realised by executives through their engagement, including *Adaptive Strategic Engagement*, *Strategic Authority and Confidence*, and *Strategic Delivery and Value Realisation*. This cyclical model demonstrates how executive engagement is not a one-off intervention but a self-reinforcing process, where each cycle of enablement and empowerment strengthens the foundations for subsequent cycles of alignment work.

A further theoretical contribution of this research is the extension and operationalisation of executive engagement attributes in the context of strategic alignment. While Jenkin et al. (2019) provided a valuable conceptual framework for stakeholder engagement - highlighting the importance of scope, depth, and timing - prior studies have rarely moved beyond these abstract dimensions to offer thick, empirically grounded accounts of how executive engagement is actually enacted in practice. This research addresses that gap by identifying and richly describing three forms of engagement (i.e. Governance, Discussion, Communications) and four core attributes of Executive Manager engagement: *Accessibility and Strategic Use of Executive Time*, *Preparation and Framing*, *Networked Engagement*, and *Business Value Driven Dialogue*. These attributes were surfaced through detailed process tracing, interviews, and analysis across multiple alignment episodes in three network utility organisations in Ireland.

By moving from conceptual proxies to observable behaviours and routines, this study demonstrates how executive engagement is not simply a matter of presence or frequency, but is actively constructed and sustained through deliberate practices. This research not only extends Jenkin et al. (2019) but also provides a practical template for organisations seeking to foster more effective executive engagement in strategic alignment process. This contribution enriches both the empirical and theoretical literature by offering a nuanced, actionable account of the mechanisms that underpin successful executive engagement and, by extension, social alignment.

By integrating these insights, the study advances the field's understanding of social alignment from a conceptual ideal to a set of observable, actionable mechanisms (Preston and Karahanna, 2009a; Gerow et al., 2014, 2016). It demonstrates that social alignment is not merely a by-product of structural arrangements but is actively constructed and sustained through deliberate executive action, iterative feedback, and artefact-centred collaboration. This contribution not only enriches the theoretical literature but also provides practical guidance for organisations seeking to foster and sustain social alignment as a foundation for strategic and operational coherence.

6.3.2 Secondary Contributions

Secondary theoretical contributions comprise the set of concepts, patterns, and theoretical insights that surfaced organically during the research process but were not explicitly targeted within the original research objectives. These insights emerged through iterative data analysis, theoretical sensitivity, and the constant comparative approach applied across cases and categories. While these outcomes extend beyond the boundaries of the predefined research objectives, they nonetheless provide meaningful theoretical value. They offer complementary explanations and observations, reveal enabling or constraining conditions, and expose additional dynamics that were not anticipated at the outset of the study. Accordingly, the secondary theoretical contributions developed in this research are outlined below.

6.3.2.1 Financial Alignment

An humble theoretical contribution of this research is the proposal for formal introduction and theorisation of Financial Alignment as a distinct and recurring alignment type within the strategic alignment literature. While traditional models and typologies have focused on intellectual, social, and operational alignment (Henderson and Venkatraman, 1993; Reich and Benbasat, 2000; Gerow et al., 2014), financial considerations have typically been treated as antecedents, constraints, or outcomes - rarely as an active, iterative process that mediates and enables alignment decisions (Kaplan and Norton, 1996; Weill and Broadbent, 1998; Oh and Pinsonneault, 2007; Schryen, 2013). This research addresses a persistent blind spot in the literature by demonstrating, through empirical evidence from network utility industry context, that financial scrutiny, value justification, and staged funding are not merely compliance exercises or explanations provided after the fact, but are central, ongoing mechanisms that shape the trajectory and sustainability of alignment work.

The study shows that Financial Alignment is enacted through executive-led processes of commercial scrutiny, portfolio trade-offs, affordability analysis, and defensibility under regulatory and organisational scrutiny. These mechanisms are particularly salient in environments where investment decisions are subject to external oversight, multi-year planning, and resource constraints, but they are also increasingly relevant in any context where IS investments must be justified in terms of measurable business value and risk (Tallon et al., 2016; Sabherwal et al., 2019; Byrd et al., 2006). By elevating financial alignment from a background constraint to a co-equal alignment type, the research extends the field's understanding of how IS strategies are made fundable, staged, and sustained over time.

Conceptually, Financial Alignment clarifies how affordability logics and value justification condition intellectual options, drive and stabilise social consensus, and shape operational sequencing - while delivery outcomes feedback to update financial benefits and future investment priorities. While the initial identification of Financial Alignment emerged empirically across all three case studies, its inclusion as a distinct alignment type is theoretically justified by linking it to well-established bodies of knowledge outside the traditional strategic alignment literature. This contribution is consistent with the IS value literature, which has emphasised the importance of linking

IS investments to business performance and value creation (Melville et al., 2004; Tallon et al., 2016; Schryen, 2013), but goes further by specifying the mechanisms through which financial discipline and accountability are embedded in the alignment process itself. These mechanisms operate independently of intellectual fit and social cohesion, and have been extensively theorised in strategic management (e.g., capital budgeting, portfolio decision-making, and dynamic capability investment choices). By integrating these theoretical perspectives, Financial Alignment as a distinct alignment type represents not merely an empirical theme but a conceptually grounded alignment mechanism that explains how financial evaluation, cost–benefit negotiation, and funding governance shape which strategic options become viable. Thus, Financial Alignment extends the theoretical architecture of strategic alignment by incorporating a well-recognised but previously under-theorised dimension of organisational strategy work - one that has its own logic, artefacts, and decision routines that cannot be subsumed under intellectual, social or operational alignment.

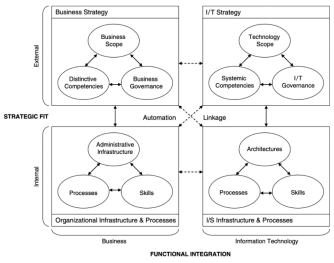
This research fills a gap in both theory and practice by formalising Financial Alignment as a distinct alignment type and detailing its mechanisms. It provides actionable detail on how financial scrutiny, value justification, and budgetary alignment are operationalised within strategic alignment work, and highlights the importance of financial discipline and accountability in sustaining alignment, especially in complex, resource-constrained, and regulated environments. This approach extends the logic of contingency theory by operationalising financial alignment as a generative, design-improving mechanism, not merely a constraint or an outcome. It ensures that IS strategy is continually recalibrated in light of financial realities, prompting teams to revisit current state analysis, explore alternative designs, and redefine cost and value justifications as needed. In doing so, financial alignment acts as a feedback loop that drives both adaptation and value creation, ensuring that alignment is robust, contextually appropriate, and optimised for organisational performance. This contribution not only advances theoretical understanding but also offers practical guidance for organisations seeking to maximise the value and impact of their IS investments.

6.3.2.2 Integrating Alignment Types Through Reciprocal Feedbacks

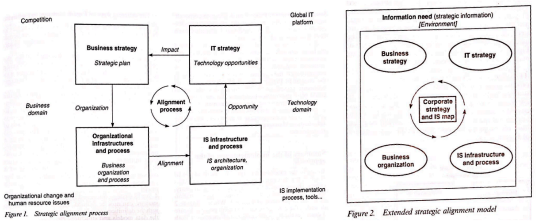
A further theoretical advance of this research is the explicit theorisation of the reciprocal, bidirectional feedbacks among alignment types - intellectual, social, operational, and financial - and the mapping of each to distinct phases and mechanisms within the *Strategic Alignment Lifecycle Loop* that in centred on the *Strategic Alignment Process Framework*. While the literature has long recognised the multidimensionality of alignment (Henderson and Venkatraman, 1993; Reich and Benbasat, 2000; Gerow et al., 2016), based on the dominant models and frameworks in the strategic alignment literature (Luftman et al., 1999; Chan and Reich, 2007a; Gerow et al., 2014; Liang et al., 2017; Gerow, 2020), the prevailing treatment of alignment types has been parallel and additive rather than causally interdependent.

The strategic alignment models as outlined in Section 2.3.2.3 and further elaborated in Appendix 3 of this thesis are important sample of the several key models in the literature. The diagram below aims to outline the strong similarities between the available models and highly cited Henderson and Venkatraman's SAM (1993) in the literature.

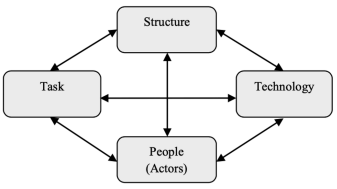
Strategic Alignment Model - adapted from Henderson and Venkatraman (1993)



Baets Model, adapted from Baets (1992)



Diamond Model Adapted from Leavitt (1965)



MIT90's Model, adapted from Scott Morton and Rockart (1983)

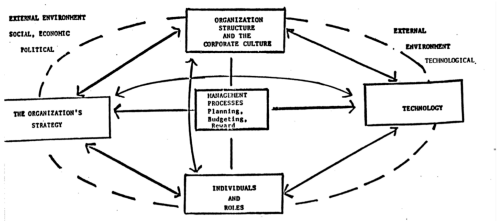


Figure 96 - Common Models of Strategic Alignment in the Literature

It is not surprising that the models have some similarities representing the evolution of ideas and conceptualisation that has evolved and cumulated over the years of academic progression. The development of a new strategic alignment model was not an initial focus or predetermined objective of this research; rather, it emerged organically

through grounded analysis of Executive Manager engagement during strategic alignment episodes. This research offers a modest contribution to the literature by conceptually and empirically illustrating - within Irish network utility organisations - how strategic alignment is defined as both a process framework (Section 6.3.1.1) and a conceptual mechanism (Section 5.2.2.2), and a lifecycle loop (Section 6.3.1.2).

Characterised by its iterative, dynamic, cyclical, and reciprocal nature, the strategic alignment process is enacted through specific mechanisms and phases with underlying stages and IS artefacts, and interacts with the Executive Manager Engagement Cycle to create and sustain strategic alignment across multiple dimensions of alignment types as outlined in the diagram below.

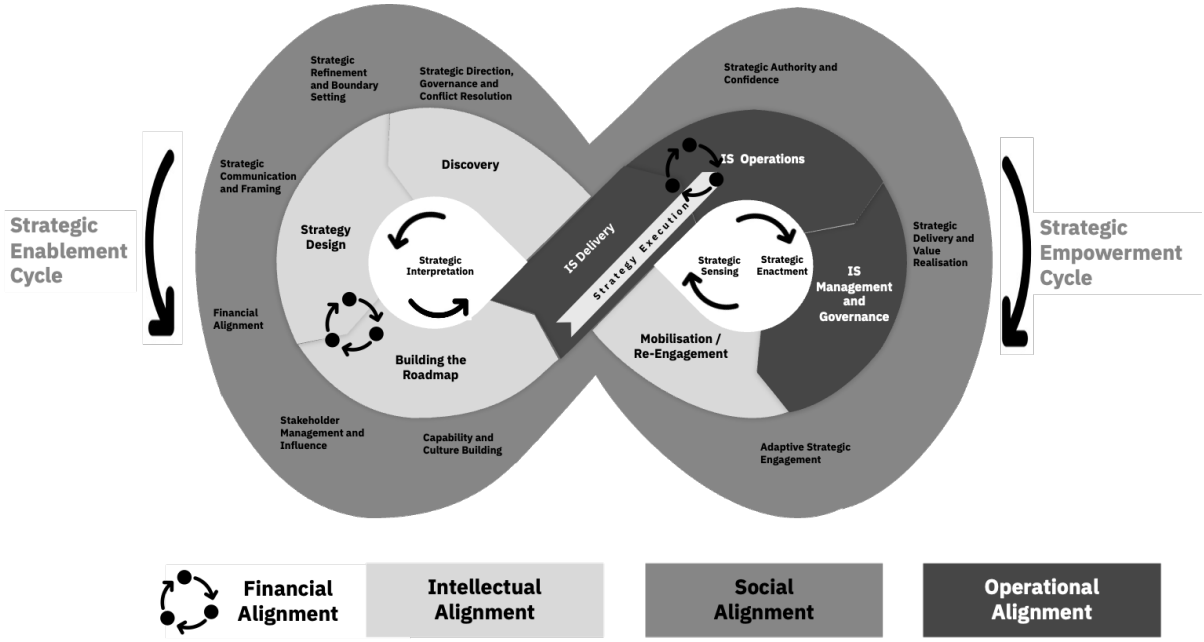


Figure 97 - Theoretical Contribution - Integrated Strategic Alignment Model

Intellectual alignment enacted through strategic interpretation and IS artefact work, operational alignment operates through strategic enactment and delivery of IS initiatives and support and maintenance of evolving technology landscape, social alignment is enacted through Executive Manager Engagement Cycle. In this conceptualisation, financial alignment can be considered as an intervening mechanism because it mediates the effect of strategic intent on actual IS portfolio decisions, cutting across multiple alignment dimensions including;

- It influences intellectual alignment by constraining or enabling alternative options and priorities based on affordability,

- It affects operational alignment by shaping and sequencing resource allocation, and
- It interacts with social alignment because financial scrutiny often requires trust and shared understanding to negotiate trade-offs.

In particular, the explicit treatment of financial alignment as a contingency-sensitive mechanism highlights the importance of ongoing adaptation and learning in achieving and sustaining strategic alignment. This bridges classic contingency theory and more recent processual views, reinforcing the need for alignment types that are both contextually responsive and capable of driving continuous improvement.

The study's findings are consistent with meta-analytic evidence that social alignment positively influences intellectual alignment, which in turn drives operational alignment and ultimately business performance (Gerow et al., 2016; Preston and Karahanna, 2009a). It also aligns with recent work showing that agility and resilience in alignment are enhanced when feedback loops are closed and learning from execution is fed back into strategy (Tallon and Pinsonneault, 2011; Amarilli et al., 2023). By specifying the mechanisms and feedbacks - such as how social alignment catalyses shared cognition and commitment, how intellectual alignment structures choices and IS artefacts, how financial alignment conditions feasibility and sequencing, and how operational alignment checks, tests and updates the strategic alignment through performance feedback - the research provides a systems view of strategic alignment that explains not only how alignment is achieved, but how it is sustained, adapted, and adjusted in the face of change.

This integrative systems view perspective is particularly valuable in complex, regulated, and resource-constrained environments, where alignment must be continuously negotiated and recalibrated across multiple domains and stakeholder groups (Benbya and McKelvey, 2006; Amarilli et al., 2023). By articulating the closed loops and causal interdependencies among alignment types, the research advances the field's understanding of alignment resilience - the speed and quality of re-alignment after disturbances - and provides a robust theoretical foundation for future empirical and practical work on the dynamics of strategic alignment types.

Ciborra's (1997) seminal critique of strategic alignment models as overly static, rational, and top-down remains highly relevant. The author foregrounded the emergent, improvisational, and lived nature of alignment, introducing concepts such as care, hospitality, and cultivation to capture the bottom-up, situated practices through which alignment is enacted. This research builds on and extends Ciborra's legacy by operationalising alignment as a dynamic, cyclical process, grounded in empirical evidence from three network utility organisations in Ireland. Through the *Strategic Alignment Lifecycle Loop* operating at the epicentre of the *Strategic Alignment Process Framework* and *Executive Manager Engagement Cycle*, this thesis provides a granular, actionable account of how alignment is created and sustained in practice - making visible the routines, artefacts, and engagement mechanisms that Ciborra called for but found lacking in mainstream models. Furthermore, by introducing Financial Alignment as a distinct alignment type and integrating the EA perspective as a mediating scaffold, this research addresses both the practical realities and the theoretical gaps identified by Ciborra, offering a bridge between thick description and actionable guidance for organisations.

6.3.2.3 Enterprise Architecture (EA) View as a Mediating Scaffold

This research shares the observations from the field studies with an objective to advance the theorisation of Enterprise Architecture (EA) view by positioning it as a critical mediating scaffold that translates executive engagement and strategic intent into durable intellectual and operational alignment. While the literature has long recognised the importance of EA in supporting strategic alignment (Allen and Boynton, 1991; Alaeddini and Salekfard, 2013; Besse et al., 2023), its role has often been described in general terms - such as providing structure, standards, or a blueprint for IS and business integration - without specifying the mechanisms by which EA actually enables alignment in practice. Recent scholarship has called for a more nuanced understanding of how EA functions as a boundary object, facilitating coordination and shared meaning across diverse stakeholder groups (Orlikowski and Iacono, 2001; Valorinta, 2011). Ivas et al. (2026) suggests that EA can evolve alongside the enterprise, supporting holistic sensemaking and tangible stakeholder value rather than enforcing rigid processes detached from reality.

This research demonstrates how EA oriented IS artefacts - such as capability maps, architectural states and standards - operate as material boundary objects that stabilise meanings (social alignment) by means of structured documentation, set boundaries for agreed design (intellectual alignment), and accelerates delivery success (operational alignment). In the phase–stage–artefact architecture developed in this research as part of the Strategic Alignment Process Framework, EA view is woven throughout the strategic alignment process: it encodes executive choices into tangible artefacts, coordinates stakeholder work around shared representations, and carries strategic priorities into portfolio sequencing and operational delivery. This mediating role is particularly salient in complex, regulated environments, where EA provides the scaffolding necessary to manage internal and external boundaries, ensure compliance, and support rapid response to changing market or regulatory conditions (Allen and Boynton, 1991; Tiwana and Konsynski, 2010; Valorinta, 2011).

By conceptualising EA view as a mediating scaffold, the research supports the field's understanding of how alignment is enacted and sustained across cycles. It shows that EA view of strategic alignment is not merely a static repository of standards or a technical blueprint, but an active, evolving set of IS artefacts and routines that encode, coordinate, and operationalise executive engagement and strategic intent. This contribution supports the theoretical literature by linking EA view to the concrete mechanisms of alignment - demonstrating how it serves as the material conduit through which engagement mechanisms are encoded, decisions are made traceable, and alignment is sustained over time (Orlikowski and Iacono, 2001; Galliers et al., 2017; Ivas et al., 2026). In doing so, it provides both scholars and practitioners with a more actionable and empirically grounded account of the role of EA in strategic alignment.

6.3.2.4 Contributions to the Digital Strategy and Digital Transformation Literature

Recent literature on Digital Transformation (DT) highlights a significant evolution in how organisations conceptualise and enact alignment between business and IS strategies. The emerging DT literature considers the extant literature on Strategic Alignment not sufficiently covering the increasing dynamism of business environments and the pervasive influence of digital technologies. The DT literature suggests that the

emergence of digital strategy further blurs the boundaries between IT and business, necessitating a fusion of strategic domains and the development of trans-functional capabilities (Galliers, 2011; Bharadwaj et al., 2013) and requiring further consideration of dynamic capabilities view (Teece, 2014; Steininger et al., 2022). Parallel to this shift, the literature on DT has expanded rapidly in the last decade, conceptualising DT as a strategic, pervasive change process triggered by digital technologies and characterised by the redefinition of organisational value propositions and identities (Vial, 2019; Wessel et al., 2021; Hanelt et al., 2021).

While several reviews have mapped the landscape of DT research (Hanelt et al., 2021; Verhoef et al., 2021), there remains several notable gaps in the literature (Yeow et al., 2018; Wiener et al., 2025). Most studies tend to conceptualise DT as a linear, staged process, often neglecting the complex, recursive, and multi-level dynamics that characterise real-world transformation efforts (Kunisch et al., 2017; Amarilli et al., 2023). There is limited theorising around the interplay of multiple DT processes, the role of temporal factors such as timing, pace, and rhythm, and the influence of key actors and organisational context on transformation outcomes (Amarilli et al., 2023). Furthermore, existing frameworks frequently lack actionable, mechanism-level detail, leaving practitioners with insufficient guidance on how to operationalize and sustain DT in practice (Vial, 2019; Hanelt et al., 2021; Wessel et al., 2021). Scholars have called for stronger process theorising, greater attention to feedback loops and reciprocal influences among transformation processes, and more nuanced accounts of how digital technologies reshape organisational identity, strategy, and value creation (Verhoef et al., 2021; Wessel et al., 2021). Addressing these gaps is essential for advancing both theoretical understanding and practical management of digital transformation in contemporary organisations.

As briefly outlined in Section 2.2 of this thesis, the terminology in use in IS has been consistently changing. In early 2010s, a new term coined, “Digitalisation”

(Bharadwaj et al., 2013) and is described as the "infusion of digital objects (bitstrings[9]) into our processes, tasks, products and services - creating major changes in the conduct of business" (Grover and Sabherwal, 2020, p. 1). There have been several different terms used to define the new terminology for "IS Strategy", these include Digital Strategy, Digital Transformation, Digital Transformation Strategy, Digital Technologies, Digital Systems, Digital Business Strategy. The literature has historically used the terms IT transformation (Gregory et al., 2018), IT-enabled transformation (Wessel et al., 2021, Piccoli, Grover and Rodriguez, 2024) and IS- enabled transformation (Besson and Rowe, 2012) somewhat interchangeably. They refer to a type of organisational transformation that features technology as a key enabler. Markus and Rowe (2023) suggest that the introduction of a new term - "digital" transformation - is unwarranted and misleading without clear demarcation, and Carroll et al. (2023) advises that the recent work on so called "digital transformation" is not different ontologically from IS-enabled transformation.

The academic literature does discuss whether digital strategy and digital transformation is a case of "old wine in a new bottle" or a truly novel phenomenon. Most sources suggest that while DT introduces new language, technologies, and organisational challenges, many foundational alignment mechanisms and strategic principles remain highly relevant (Rego et al., 2022). Given the ongoing debate among the scholars, this research addresses several persistent gaps in the DT literature. Recent reviews have highlighted the lack of actionable, mechanism-level process models for alignment and digital transformation, noting that much of the existing research remains abstract, static, or overly reliant on linear theorising (Yeow et al. 2018; Wiener, Strahringer and Kotlarsky, 2025). In response, findings of this research can be extended onto the DT literature. This study operationalises strategic alignment through a detailed phase–stage–artefact

[9] Researcher notes that this term is old as the mainframe technology, consisting of 0s and 1s.

architecture, providing a replicable framework that breaks down alignment into observable activities and tangible IS artefacts as outlined previously in this chapter.

Furthermore, by conceptualising alignment as a dynamic, cyclical, and co-evolutionary process, this thesis advances the field beyond static or end-state models, aligning with calls for processual and adaptive perspectives that reflect the realities of ongoing organisational change (Benbya and McKelvey, 2006; Amarilli et al., 2023). The development of the Executive Manager Engagement Cycle provides a mechanism-level account of social alignment, detailing the micro-processes of executive engagement and artefact use covering the areas underexplored in prior digital transformation research. The formalisation of Financial Alignment as a distinct, recurring process further extends existing typologies, highlighting the central role of financial scrutiny and value justification in sustaining alignment, especially in regulated and resource-constrained environments.

Finally, this thesis integrates intellectual, social, operational, and financial alignment types through explicit feedback loops, offering a holistic, systems-based explanation of how alignment is achieved and sustained over time. Collectively, these contributions can be extended to respond to sustained calls in the DT literature (Vial, 2019; Hanelt et al., 2021; Rego et al., 2022) for empirically grounded, actionable, and integrative models that advance both theory and practice in digital transformation literature (Yeow et al., 2018; Wiener et al., 2025).

6.4 Empirical Contributions

Empirical contributions refer to descriptions or insights about a phenomenon that have not been previously explored in research, or have only been addressed to a limited extent. (Agerfalk and Karlsson, 2020). This research makes several important empirical contributions to the strategic alignment literature.

First, this research provides a rare, in-depth, multi-case study of strategic alignment processes in network utility organisations in Ireland - a regulated sector and national context that has received no prior empirical attention for strategic alignment. By tracing real-world episodes of strategic alignment process including the nature of

engagement with Executive Managers across electricity, gas, and water network utilities, the study offers a rich, contextually grounded account of how alignment is enacted in practice.

Second, the research delivers “thick description” of the actual phases, stages, and IS artefacts that constitute strategic alignment work. Unlike much of the extant literature, which relies on surveys or conceptual models, this study systematically documents the sequence of activities, decision points, and tangible outputs as outlined in the Strategic Alignment Process Framework (included in Appendix 9) that underpin alignment. This empirical mapping addresses long-standing calls for more granular, actionable accounts of alignment processes.

Third, the study provides detailed empirical evidence on the nature of executive engagement in alignment. Through interviews, document analysis, and process tracing, it reveals how Executive Managers are engaged at different phases and stages, the forms and depth of their involvement, and the mechanisms by which their contributions and gains shape strategic alignment outcomes. This moves beyond structural proxies for engagement, offering a nuanced, mechanism-level account of executive participation within the network utility organisations in Ireland.

Fourth, the research empirically identifies Financial Alignment as a recurring and critical practice in alignment episodes. The data show how financial scrutiny, value justification, and staged funding are woven into the strategic alignment process, shaping both strategic choices and operational delivery. This finding grounds the theoretical construct of Financial Alignment in observable practice, particularly in regulated, resource-constrained environments.

Finally, this research demonstrates how alignment is sustained, adapted, and adjusted over time through iterative cycles of strategic sensing, strategic interpretation, and strategic enactment. By capturing the lived reality of strategic alignment as a cyclical, negotiated process, the research provides empirical support for dynamic, co-evolutionary models of alignment and offers practical insights for organisations seeking to create and sustain strategic alignment in complex and changing contexts.

6.5 Practical Contributions

This research delivers several important practical contributions for organisations seeking to achieve and sustain strategic alignment between business and IS strategies, particularly in complex, resource-constrained, and highly regulated environments such as network utility organisations.

This research provides practitioners with a comprehensive, evidence-based framework for structuring, managing, and sustaining strategic alignment. It delivers actionable guidance on strategic alignment process including stages and IS artefacts, insights on the nature of the executive engagement, to move beyond theory driven efforts toward more adaptive, value-driven, and strategically integrated alignment practices.

6.5.1 Actionable Process and Artefact Tools for Alignment

A central practical contribution of this research is the provision of a replicable, actionable strategic alignment process model for achieving and sustaining strategic alignment in complex organisations. The phase–stage–artefact architecture developed in this thesis as part of the Strategic Alignment Process Framework moves beyond abstract "fit" metaphors and high-level frameworks by offering practitioners a concrete, step-by-step guide to structuring, diagnosing, and improving alignment work. By clearly delineating the phases and the stages within each phase, the model enables organisations to map their own alignment journeys, identify where they are in the process, and anticipate what activities and decisions are required next. This is particularly valuable in environments where alignment is often treated as a one-off event or a vague aspiration, rather than as a continuous and managed process.

Crucially, the research catalogues and describes the key IS artefacts produced at each stage and demonstrates how these artefacts can be used as boundary objects to facilitate shared understanding, decision-making, and accountability across diverse stakeholder groups. The thesis provides practical templates and examples for these artefacts, enabling practitioners to improve the quality and traceability of their documentation, communication, and governance routines. By making the artefact

creation and refinement process explicit, the research empowers organisations to move to a more systematic, evidence-based approach.

Furthermore, the process model and artefact templates serve as diagnostic tools for assessing alignment maturity and identifying gaps. Organisations can use the framework to evaluate the completeness and effectiveness of their current strategic alignment practices, pinpoint areas where artefacts are missing or underdeveloped, and prioritise improvement actions. This is especially useful for organisations operating in regulated, resource-constrained, or rapidly changing environments, where the ability to demonstrate alignment through tangible outputs and clear processes is critical for both internal management and external accountability.

This contribution equips practitioners with a practical, adaptable toolkit for enacting, documenting, and sustaining strategic alignment. It enables IS and business leaders to move from conceptual aspirations to concrete action, fostering a culture of continuous alignment and improvement that is grounded in real-world artefacts and routines.

6.5.2 Executive Engagement and Leadership Practice

A major practical contribution of this research is the translation of executive engagement from a conceptual ideal into a set of actionable, evidence-based leadership practices that organisations can adopt to drive and sustain strategic alignment. The study moves beyond the traditional reliance on structural proxies for engagement - such as executive presence in planning meetings or board representation by providing a nuanced, empirically grounded account of how executive engagement is actually enacted and maintained in practice. Through detailed process tracing, interviews, and artefact analysis, the research identifies three forms of engagement (i.e. Governance, Discussion and Communications) and four core attributes of effective executive engagement: Accessibility and Strategic Use of Executive Time, Preparation and Framing, Networked Engagement, and Business Value Driven Dialogue.

These forms and attributes offer practitioners concrete guidance for designing, scheduling, and managing executive involvement in alignment work. For example, the

research demonstrates the importance of proactively managing executive time and attention, ensuring that engagement is purposeful, outcome-oriented, and not diluted by overuse or lack of focus. Preparation and framing are shown to be critical for productive interactions, with well-structured materials and clear messaging enabling executives to make informed decisions efficiently. Networked engagement highlights the value of leveraging both formal and informal influence to build consensus and drive alignment across organisational boundaries, while business value driven dialogue ensures that alignment work remains anchored in organisational priorities and stakeholder needs.

In addition to these engagement routines, the research provides diagnostic tools for assessing the maturity and effectiveness of executive engagement in alignment processes. Organisations can use these tools to evaluate the scope, depth, and timing of executive involvement, identify gaps or weaknesses, and prioritise improvement actions. This is particularly valuable in complex, multi-stakeholder environments, where alignment depends not only on technical or procedural factors but also on the quality of leadership and collaboration at the executive level.

By operationalising executive engagement as a set of observable behaviours and routines, this research empowers IS and business leaders to move from passive or symbolic participation to active, purposeful leadership in strategic alignment work. It also offers a practical template for developing and institutionalising effective engagement practices, fostering a culture of shared ownership, trust, and accountability that is essential for sustaining alignment in dynamic and challenging contexts.

6.5.3 Financial and Value Management in Alignment

A key practical contribution of this research is the operationalisation of Financial Alignment and value management as integral, ongoing components of the strategic alignment process. While financial scrutiny and value justification have often been treated as background constraints or afterthoughts in alignment practice, this study demonstrates that they are, in fact, central mechanisms that shape both strategic choices and operational delivery. The research provides practitioners with a practical framework for embedding commercial scrutiny, staged funding, and value justification

into alignment routines, ensuring that IS investments are not only strategically desirable but also fundable, defensible, and aligned with measurable business value.

The study details how financial alignment is enacted through executive-led processes such as portfolio trade-offs, affordability analysis, and the iterative evaluation of investment cases and business value artefacts. These routines are especially salient in regulated or resource-constrained environments, where investment decisions are subject to external oversight and multi-year planning cycles. By making these financial routines explicit and actionable, the research equips managers with tools for integrating financial discipline and accountability into every phase of the alignment process - from initial strategy formulation through to execution and benefits realisation. Practically, the findings warrant an explicit Financial Alignment focused cadence, which includes an affordability dialogue at the close of the Strategy Design phase and a value re-validation during Detailed Delivery Planning stage of Strategy Execution phase of the strategic alignment process. These routines institutionalise the re-examination of options and business value logic before commitment, as outlined in Section 6.2.5 of this thesis.

Furthermore, the research highlights the importance of value-driven dialogue and transparent justification of IS investments. By anchoring alignment work in business value and stakeholder impact, organisations can foster greater buy-in, reduce resistance, and ensure that technology initiatives are closely tied to organisational priorities and performance outcomes. The study's practical guidance on financial alignment also supports more effective communication with boards, regulators, and other external stakeholders, enhancing the credibility and sustainability of IS strategies.

Overall, this contribution empowers practitioners to move beyond ad hoc or compliance-driven financial management, embedding value and affordability considerations as core, iterative elements of strategic alignment work. It provides a roadmap for creating and sustaining alignment in dynamic, regulated contexts and offers practical tools for maximising the return on IS investments while maintaining strategic and operational coherence.

6.5.4 Strategic Use of Enterprise Architecture View

A further practical contribution of this research is the demonstration of how Enterprise Architecture (EA) view can be leveraged as a strategic tool for achieving and sustaining alignment, moving beyond its traditional role as a technical or compliance artefact. The study shows that EA oriented IS artefacts - such as capability maps, architectural states and standards - are not merely static documents or repositories, but active, living tools that encode executive intent, coordinate stakeholder work, and accelerate the delivery of strategic initiatives. By embedding EA artefacts throughout the phase–stage–artefact architecture, the research provides practitioners with concrete examples of how EA view can be used to bridge the gap between business strategy and IS operations, ensuring that alignment is not only designed but also enacted and sustained over time.

The research highlights the value of EA view in strategic alignment process as a material boundary object facilitating shared understanding and collaboration across diverse stakeholder groups. In practice, this means that EA artefacts can be used to anchor discussions, clarify decision justifications, and provide a common language for negotiating trade-offs and resolving conflicts. The study's findings demonstrate that when EA is integrated into the alignment process as a mediating scaffold, it enhances the traceability, transparency, and accountability of strategic decisions, and supports more agile and responsive delivery of IS initiatives and operational support.

Moreover, the research provides practical guidance for using EA to support portfolio management, resource allocation, and benefits realisation. By linking EA artefacts to specific phases and stages of the alignment process, practitioners can ensure that architectural standards and principles are not only documented but actively used to guide investment decisions, prioritise initiatives, and monitor progress. This strategic use of EA is particularly valuable in regulated or rapidly changing environments, where the ability to demonstrate alignment through tangible outputs and clear processes is critical for both internal management and external accountability.

In summary, this contribution empowers practitioners to move beyond compliance-driven or siloed approaches to EA, positioning it as a central, strategic enabler of alignment. It provides a roadmap for embedding EA into the fabric of

alignment work, ensuring that architectural artefacts are used not just for technical standardisation, but as active tools for encoding executive intent, coordinating stakeholder action, and sustaining alignment across the organisation.

6.6 Methodological Reflections

Methodologically, this research demonstrates how a combination of temporal bracketing, narrative strategy, thematic analysis, processual inquiry and grounded theory strategy techniques can be used to build mid-range process theory that remains close to granular details. This research makes a humble methodological contribution by demonstrating how a multi-strategy, artefact-centred approach can be used to build robust, mechanism-aware process theory in the field of strategic alignment. While much of the alignment literature has relied on either quantitative survey methods or single-case narratives, this study integrates temporal bracketing, narrative strategy, process analysis, thematic analysis, and grounded theory strategy for qualitative data analysis to produce a rich, empirically grounded account of how alignment is enacted in practice (Langley, 1999; Riessman, 2008; Charmaz, 2017). This hybrid analytic design supports the discovery of mid-range process theory while preserving the contextual nuance and complexity of real-world alignment work.

A key innovation of this approach is its artefact-centred orientation. Responding to calls in the literature to move beyond surface proxies or abstract constructs (Orlikowski and Iacono, 2001; Moeini et al., 2019), the research anchors its analysis in the tangible outputs, routines, and decision episodes that constitute alignment work. By systematically tracing the creation, refinement, and use of IS artefacts - such as capability maps, architectural states and standards - across multiple phases and stages across three case study organisations, the study provides “thick descriptions” of the mechanisms and collaborative practices that underpin alignment (Karpovsky and Galliers, 2015; Hughes and McDonagh, 2021). This artefact-centred process theorising not only enhances the credibility and transferability of the findings (Yin, 2017; Miles, Huberman and Saldaña, 2019), but also offers a replicable analytic template for future research in strategic alignment.

Furthermore, the research demonstrates how within-case narratives and cross-case patterning (Eisenhardt, 1989; Eisenhardt and Graebner, 2007) can be combined with coding logics from grounded theory (Corbin and Strauss, 1990; Gioia et al., 2022) to balance parsimony and empirical richness. The iterative cycles of open, axial, and selective coding facilitate the identification of central themes, mechanisms, and processes, while the integration of temporal bracketing and narrative strategy enables the mapping of alignment dynamics over time. This methodological pluralism is particularly valuable in complex, multi-stakeholder environments, where alignment must be continuously negotiated and recalibrated across multiple domains and artefacts.

In summary, this methodological contribution advances the field by providing a replicable, evidence-based framework for artefact-centred process theorising in strategic alignment research in IS domain. It enables scholars to move beyond atheoretical or over-abstracted accounts, and equips practitioners with practical tools for diagnosing, designing, and improving alignment practices in their own organisations.

Finally, the methodological choices made in this research reflect a commitment to bridging the gap between academic theory and organisational practice. By grounding conceptual development in empirical evidence and focusing on the operationalisation of alignment mechanisms, the study contributes to both the scholarly discourse and the practical management of strategic alignment. The methodological reflections outlined here underscore the value of flexible, iterative, and context-sensitive approaches in advancing understanding of complex organisational phenomena.

6.7 Limitations of the Study

This research demonstrates several key strengths. First, the multi-case, longitudinal design provides a rich empirical foundation that captures the temporal, iterative, and context-specific nature of strategic alignment work within regulated Irish network utility organisations. Second, the study offers significant theoretical contributions, most notably the development of a mechanism-level explanation of executive engagement through the Strategic Enablement and Strategic Empowerment cycles. Third, the research delivers a process and practice oriented Strategic Alignment

Process Framework (phases–stages–artefacts) and a dynamic Strategic Alignment Lifecycle Loop (sensing–interpretation–enactment), grounded in observable IS artefacts and governance routines, thereby addressing long-standing calls for processual and artefact-level operationalisation in the alignment literature. Finally, the study exhibits strong methodological rigour through transparent coding, triangulation of multiple data sources, reflexive practice, and participant validation, collectively enhancing the credibility and transferability of the findings.

While this research makes humble contributions to the understanding of strategic alignment and executive engagement, several limitations should be acknowledged.

First, the study is contextually bounded by its focus on the Irish network utility organisations. The empirical work was conducted in three regulated, asset-intensive organisations within a single national context. While this setting offers rich insights into alignment in complex, resource-constrained, and highly regulated environments, it limits the generalisability of findings to other sectors, geographies, or organisational forms. The unique characteristics of network utility organisations - such as regulatory cycles, long investment horizons, and established governance structures - may shape alignment practices in ways that differ from more dynamic, competitive, or less regulated industries.

Second, the research relies primarily on qualitative case study methods, including interviews, document analysis, and process tracing. Although multiple data sources and triangulation were used to enhance credibility, the perspectives captured are necessarily bounded by the experiences, roles, and organisational positions of the participants. There is a risk that certain viewpoints - such as those of Executive Managers and Senior Managers - may be underrepresented, potentially limiting the breadth of insight into alignment dynamics and engagement mechanisms.

Third, the interpretive and process-oriented methodological approach introduces subjectivity in data interpretation, coding, and conceptual abstraction. Researcher bias, positionality, and the iterative nature of qualitative analysis may influence the framing of findings and the development of conceptual models. Although reflexivity and transparency were prioritised throughout the research, the potential for interpretive bias remains an inherent limitation of qualitative inquiry.

Fourth, the study's focus on executive engagement and artefact-centred process models means that other dimensions of alignment - such as technology adoption, user experience, or operational implementation - are addressed primarily through the lens of senior management. This may overlook important micro-level or cross-functional dynamics that contribute to alignment outcomes. Additionally, the emphasis on formal artefacts and processes may underplay the role of informal practices, emergent behaviours, or organisational culture in shaping alignment work.

Finally, the theoretical frameworks and models developed in this research are grounded in the specific episodes and organisational contexts studied. While they offer actionable guidance and theoretical advancement, their applicability to other settings should be tested through further empirical research, including longitudinal studies, comparative analyses, and quantitative validation. For example, the identification of Financial Alignment as a novel alignment type warrants additional investigation across diverse industries and organisational forms to assess its general relevance and impact. The salience of Financial Alignment may be amplified in capital-intensive, regulated utilities; transferability to fast-cycle digital contexts should be examined carefully.

In summary, these limitations reflect the choices and constraints inherent in qualitative, context-sensitive research. They do not diminish the value of the study's contributions, but rather highlight areas for caution, further inquiry, and methodological development in future research on strategic alignment and executive engagement.

6.8 Directions for Future Research

Building on the findings and limitations of this study, several promising avenues for future research in strategic alignment and executive engagement are apparent.

First, there is a need to test and refine the Strategic Alignment Process Framework, Strategic Alignment Lifecycle Loop and Executive Manager Engagement Cycle developed in this thesis across a broader range of organisational contexts. While this research focused on the Irish network utility organisations, future studies could examine the applicability and adaptability of the phase–stage–artefact architecture, the executive engagement attributes and engagement cycles in other sectors, geographies, and

regulatory environments. Comparative research across industries - such as telecoms, transportation manufacturing, or services - would help assess the generalisability and boundary conditions of the proposed models.

Second, future research should explore the dynamics of alignment over time through longitudinal and mixed-methods designs. Longitudinal studies could provide deeper insight into how alignment is sustained, adapted, and renewed in response to organisational change, regulatory cycles, and technological disruption. Quantitative studies could complement the qualitative insights of this thesis by developing and validating measurement instruments for the mechanisms, artefacts, and engagement attributes and cycles identified in this research, enabling broader empirical testing and benchmarking.

Third, further investigation is warranted into the validation, operationalisation and impact of Financial Alignment. Future research could examine how financial scrutiny, value justification, and budgetary alignment are enacted in different organisational contexts, and what effects they have on other alignment types, IS investment outcomes, strategic coherence, and business performance. Studies could also explore the interplay between Financial Alignment and other alignment types - such as intellectual, social, and operational alignment - to clarify their interdependencies and collective influence on organisational success. Future work could operationalise “Financial Alignment intensity” (e.g. frequency and depth of affordability dialogues, re-baselining value justifications, changes to strategy design sets) and model its effects. Comparative studies across governance contexts could test whether Financial Alignment primarily mediates between social, operational and intellectual alignment, or also moderates their effects as outlined in Section 6.2.6 of this thesis.

Fourth, there is scope for deeper exploration of the micro-dynamics of executive engagement and artefact use. Action research, ethnographic studies, or in-depth case studies could provide richer accounts of how executive engagement routines are developed, institutionalised, and evaluated in practice. Researchers might also investigate the role of informal practices, emergent behaviours, and organisational culture in shaping strategic alignment work, complementing the artefact-centred and processual focus of this thesis.

Fifth, future research should consider the role of digital transformation, emerging technologies, and enterprise architecture in shaping alignment practices. As organisations increasingly adopt digital platforms, AI, and data-driven decision-making, new challenges and opportunities for alignment are likely to emerge. Studies could examine how the frameworks and artefacts developed here can be adapted to support alignment in digital and rapidly evolving environments, and how enterprise architecture can be leveraged as a strategic enabler of alignment.

Sixth, future research could address some of the limitations of this study by incorporating a wider range of stakeholder perspectives, including middle managers, technical staff, and external partners. Mixed-methods approaches, integrating qualitative and quantitative data, could provide a more holistic understanding of alignment dynamics and engagement processes. There is also potential for developing and testing diagnostic tools and maturity models based on the frameworks and attributes identified in this research.

Finally, this research lays a foundation for a more nuanced, processual, and actionable understanding of strategic alignment. Future studies can build on these insights to further refine conceptual models, develop practical tools, and enhance the effectiveness of alignment work in diverse and evolving organisational landscapes.

6.9 Conclusions

This chapter has critically examined the findings and conceptual developments of the research, situating them within the broader academic discourse on strategic alignment, executive engagement, and stakeholder theory. Through a processual and empirically grounded approach, the study has advanced the understanding of strategic alignment as a dynamic, cyclical phenomenon, moving beyond static models and offering a detailed framework for alignment work in complex organisational contexts.

Building on Benbya and McKelvey's co-evolutionary view (2006) that alignment is an emergent, multi-level adaptive process rather than a deterministic top-down "fit", and that organisations require enabling routines to sustain ongoing adjustments, and on Reich and Benbasat's (1996, 2000) distinction between intellectual and social

dimensions - where the latter is shaped by shared domain knowledge, executive communication, IT implementation success, and planning connections - this thesis advances the field;

- by operationalising those ideas into a phase–stage–artefact architecture (Strategic Alignment Process Framework) and a dynamic lifecycle loop of sensing, interpreting and enacting (Strategic Alignment Lifecycle Loop) that make co-evolution transparent in practice;
- by translating social alignment into a mechanism-level Executive Manager Engagement Cycle (including Strategic Enablement and Strategic Empowerment) with observable forms and attributes of executive engagement;
- by positioning a combined co-evolutionary perspective and Enterprise Architecture view via IS artefacts as mediating boundary objects that stabilise meanings (social alignment), documents agreed strategic choices (intellectual alignment), and accelerate delivery (operational alignment); and
- by proposing Financial Alignment as a distinct, recurring alignment type that mediates between intellectual intent and operational delivery under affordability constraints.

These contributions respond to insights that frame alignment as emergent and multi-dimensional and call for process and mechanism oriented explanations (Benbya, Leidner and Preston, 2023), by offering traceable routines, artefacts, and governance checkpoints grounded in longitudinal evidence.

The research has made several novel theoretical contributions. These advances address longstanding gaps in the literature and provide new conceptual tools for both scholars and practitioners. By integrating these contributions, the study not only clarifies how alignment is achieved and sustained, but also offers a roadmap for building organisational capability, resilience, and sustainable value through strategic alignment.

The insights developed in this chapter lay the foundation for the concluding chapter, which will consolidate the overall findings, reflect on the research journey, and articulate the enduring significance of strategic alignment and executive engagement for organisations navigating ongoing change and complexity.

7 Conclusion

This final chapter brings together the key insights and contributions of the research, providing closure to the thesis and reflecting on the overall research journey. The purpose of this chapter is to synthesise the main findings, revisit the research objectives and questions, and highlight the theoretical, empirical, methodological and practical significance of the study. This chapter also acknowledges the limitations encountered, offers recommendations for practitioners, and outlines directions for future research.

7.1 Relevance of the Research Study

This research is highly relevant to both academic and practitioner communities, addressing persistent challenges and contemporary demands in the field of strategic alignment between business and IS strategies. Despite decades of scholarly attention, strategic alignment remains a top concern for organisations, particularly in complex, regulated, and resource-constrained environments such as network utility organisations in Ireland. The ongoing digital transformation of industries, increasing regulatory scrutiny, and the need for demonstrable value from IS investments have only heightened the importance of research on strategic alignment within the IS academic domain.

By moving beyond abstract models and static frameworks, this research provides a detailed, empirically grounded account of how alignment is created and sustained in real-world settings. The research responds directly to calls in the literature for more actionable, artefact-centred, and process-oriented models that can guide both scholarly inquiry and practical implementation. The frameworks, routines, and artefacts developed in this thesis offer practitioners clear, adaptable tools for structuring, diagnosing, and improving alignment work, while also equipping scholars with new constructs and mechanisms for further investigation.

Moreover, the study's focus on strategic alignment process, stages, IS artefacts and nature of Executive Manager engagement addresses critical gaps in both research

and practice. By illuminating the micro-dynamics of alignment work and providing templates for effective engagement, the research supports organisations in building and sustaining strategic alignment. The findings are particularly relevant for leaders navigating digital transformation, regulatory change, and the increasing complexity of organisational environments.

Finally, this research makes a timely and significant contribution to the ongoing effort to bridge the gap between theory and practice in IS domain. It offers both immediate practical value for organisations seeking to enhance their alignment capabilities and a robust foundation for future academic inquiry.

7.2 Restatement of Research Objectives and Questions

This research is situated within the IS Strategy domain (Gable, 2020). and specifically focuses on Strategic use of IS that contains two interconnected core conceptions for *IS Strategy and Planning* and *Strategic Alignment*, addressing the persistent challenge of how organisations can formulate and sustain effective alignment between business and IS strategies in practice

This thesis set out to investigate the nature of engagement with Executive Managers in the creation and sustenance of strategic alignment between business and IS strategies, with a particular focus on network utility organisations in Ireland. The central aim was to move beyond abstract or static models of alignment and provide a detailed, empirically grounded account of how alignment is enacted, sustained, and renewed in complex, regulated, and resource-constrained environments.

The primary objective of this research is to explore how Executive Managers engage with the creation and sustenance of strategic alignment between business and IS strategies. This involves identifying the phases and stages of strategic alignment work as it unfolds over time, determining the specific alignment-related activities and the definition of key IS artefacts executed in each phase or stage, and analysing the approach and nature of Executive Manager engagement governing these activities.

To address this objective, the research is guided by the following main research question:

How do executive managers engage with creating and sustaining strategic alignment between business strategy and information systems strategy over time?

To address this, the research was structured around three core sub-questions:

- What are the phases/stages of IS strategic alignment work as they unfold over time?
- What specific alignment work sits within each phase/stage?
- How are executive managers engaged in each phase and what is the nature of that engagement?

By answering these questions, the research provides a processual understanding of strategic alignment, clarifies the role and mechanisms of executive engagement, and generates new insights into the activities, artefacts, and practices that underpin strategic alignment within complex organisational settings, drawing on evidence from three network utility organisations in Ireland.

7.3 Accomplishment of the Purpose and Aims

This thesis explains how alignment is created and sustained over time by developing an empirically grounded account that integrates both process-oriented and practice-oriented perspectives. This research adopts the relativist ontological stance, as the study assumes that the reality is socially constructed, and an interpretivist/constructivist epistemological stance, recognising that meaning is both interpreted and actively constructed through the interactions between researcher and participants (Crotty, 1998; Klein and Myers, 1999; Charmaz, 2017). The adoption of a relativist ontological stance and interpretivist/constructivist epistemology directly informs the methodological choices in this research. By recognising that reality is socially constructed and that knowledge emerges through interaction and interpretation, the study employs a qualitative, longitudinal, multi-case approach. This enables an in-depth exploration of Executive Managers' engagement with strategic alignment process within their unique organisational contexts while conducting a processual inquiry on the strategic alignment process. The use of semi-structured interviews, narrative analysis, thematic analysis, and grounded theory strategy for qualitative data analysis is

consistent with the interpretivist paradigm, ensuring that the research design remains coherent with its philosophical foundations and is well-suited to uncovering rich, context-sensitive insights.

In response to the first sub-question, the study has mapped the distinct phases and stages of IS strategic alignment process, revealing how alignment is continuously created, negotiated, and recalibrated through a series of interconnected activities and feedback loops. The research has also detailed the specific alignment work and artefacts associated with each phase and stage, offering actionable guidance for practitioners and filling a longstanding gap in the literature regarding the content and structure of alignment processes.

Addressing the second sub-question, the study has provided a granular account of the stages, activities and IS artefacts that characterise each phase of the alignment process as well as the mechanisms by which these artefacts are developed, communicated and operationalised.

In response to the third sub-question, the research has delivered a nuanced understanding of strategic alignment process and executive engagement therein, moving beyond structural and relational proxies to detail the mechanisms, attributes, and inputs and outcomes of engagement with the Executive Managers. The study has operationalised executive engagement through forms (i.e. Governance, Discussion, Communications) and attributes such as accessibility and strategic use of executive time, preparation and framing, networked engagement, and business value driven dialogue. It has also introduced *Strategic Alignment Process Framework*, *Strategic Alignment Lifecycle Loop* and *Executive Manager Engagement Cycle* – encompassing a dual-cycle model of strategic enablement and strategic empowerment, clarifying the reciprocal value exchange between Executive Managers and the strategic alignment process phases and stages via sensing, interpretating and enacting related activities.

Furthermore, the research has achieved its aim of advancing both theoretical and practical understanding of strategic alignment by overlaying alignment types - including a proposed new distinct alignment type - on to the proposed theoretical framework integrating artefacts and activities, and providing actionable frameworks for practitioners. These accomplishments collectively demonstrate that the original purpose

and aims of the study have been fulfilled, offering new insights, conceptual tools, and practical guidance for organisations seeking to achieve and sustain strategic alignment in complex and evolving environments.

7.4 Summary of Key Findings and Contributions

7.4.1 Overview of Key Findings

First, the research identified that strategic alignment is not a static outcome (Chan and Reich, 2007a) but a dynamic, cyclical process comprising distinct phases and stages. These phases include *Mobilisation*, *Discovery*, *Strategy Design*, *Building the Roadmap*, and *Strategy Execution*, each characterised by specific stages and activities, including the drafting and finalisation of IS artefacts. This research extends the literature by illuminating the "how" of alignment work - detailing the artefacts, activities, and collaborative processes that underpin effective strategic alignment (Karpovsky and Galliers, 2015). The *Strategic Alignment Process Framework*, developed in the research and outlined in Appendix 9 of this thesis, represents a novel contribution.

Second, the strategic alignment process was conceptualised as both a dynamic mechanism and a continuous lifecycle loop, reflecting the iterative nature of aligning IS with evolving business strategy (Benbya and McKelvey, 2006). The research proposed the *Strategic Alignment Lifecycle Loop* - encompassing three-step cyclical lifecycle loop (*Strategic Sensing*, *Strategic Interpretation*, and *Strategic Enactment*) which follows the Strategic Alignment Process Framework and iteratively incorporates review of previous IS strategy execution and IS operations performance.

Third, the research validated that the effectiveness of engagement with Executive Managers is determined by its scope (the breadth of stakeholders and issues addressed), depth (the level of detail and intensity of involvement), and timing (the points at which engagement occurs throughout the alignment lifecycle) (Jenkin et al., 2019). These dimensions were shown to vary across different phases of strategic alignment process. The research identified three forms of executive engagement, including Governance, Discussion, and Communications, with key attributes surfacing in the nature of Executive Manager engagement. The findings of this research also demonstrated that effective

engagement is not simply a matter of structural presence or formal authority, but is enacted through deliberate practices of *Accessibility and Strategic Use of Executive Time*, *Preparation and Framing*, *Networked Engagement* and *Business Value Driven Dialogue*. These findings extend stakeholder theory by offering concrete mechanisms and attributes that can be observed, measured, and managed in practice, and by clarifying how Executive Managers, as salient stakeholders, shape and are shaped by the alignment process (Freeman, 1984; Mitchell et al., 1997).

Fourth, the research study revealed that engagement with Executive Managers is central to the strategic alignment process (Reich and Benbasat, 2000) and operates via the *Executive Manager Engagement Cycle*. Executive engagement was found to be multi-dimensional, encompassing governance, discussion, and communications forms, each with varying depth, scope, and timing. The analysis demonstrated that Executive Managers contribute to strategic alignment through six interrelated domains: *Strategic Direction and Governance*, *Strategic Refinement and Boundary Setting*, *Financial Alignment*, *Stakeholder Management and Influence*, *Strategic Communication and Framing*, and *Capability and Culture Building*. The findings also showed that Executive Managers gain three principal outcomes from their engagement in the alignment process: *Adaptive Strategic Engagement*, *Strategic Authority and Confidence*, and *Strategic Delivery and Value Realisation*. These outcomes form the Executive Manager Engagement Cycle and reinforce the cyclical nature of alignment work, highlighting the reciprocal relationship between executive contributions (Strategic Enablement Cycle) and gains (Strategic Empowerment Cycle).

Fifth, the research study identified and conceptualised Financial Alignment as a distinct and recurring alignment type (Gerow et al., 2014), grounded in both empirical evidence and theoretical development. The identification of Financial Alignment as a distinct alignment type in this research was not an initial focus or predetermined objective. Rather, it emerged organically through the grounded analysis of Executive Manager engagement during strategic alignment episodes. As the data were coded and categorised, Commercial Scrutiny and Value Justification (particularly around business value, commercial justification, funding affordability and prioritisation) repeatedly surfaced as a central theme in both the inputs provided and outputs gained by Executive Managers. This was especially pronounced in the context of regulated utility

environments, where financial constraints and accountability are paramount. Financial Alignment is defined as the evaluative and integrative process by which Executive Managers scrutinise, justify, and align IS initiatives with organisational budgetary frameworks, funding cycles, and value creation objectives. The empirical findings demonstrate that financial alignment is not simply a by-product of other alignment types, but a necessary and ongoing domain of alignment work.

Finally, integrating these findings, this research provided a comprehensive explanation of how executive engagement drives and sustains alignment, and how alignment activities are structured and enacted over time. The revised theoretical framework positions Strategic Alignment Process Framework at the intersection of two reinforcing cycles: the Executive Manager Engagement Cycle (strategic enablement cycle for inputs and contributions, and strategic empowerment cycle for outputs and gains) and the Strategic Alignment Lifecycle Loop (Strategic Sensing, Strategic Interpretation, and Strategic Enactment).

Collectively, these findings advance understanding of the mechanisms by which strategic alignment is created and sustained (Chan and Reich, 2007a) in organisational settings similar to network utility organisations in Ireland, and clarify the role of Executive Managers in shaping both the process and outcomes of alignment work.

7.4.2 Contributions

This research adopted a Strategy-as-Process perspective (Pettigrew, 1997; Sminia, 2015), focusing on the temporal unfolding of IS strategy work through phases, stages, and iterative cycles that sustain alignment. The primary concern is with the sequencing and structuring of activities that connect strategic intent to operational realities while focusing on the nature of engagement with Executive Managers. While the process lens dominates the research, the analysis incorporates elements of Strategy-as-Practice (Jarzabkowski et al., 2007; Whittington, 2014) in relation to artefacts - examining how these tangible outputs function as boundary objects and enable coordination across diverse stakeholder groups. This integration ensures that the study captures both the macro-level process dynamics and the micro-level material supports that make alignment actionable.

This research combined the Enterprise Architecture view with the Co-evolutionary perspective that emphasises that strategic alignment is not a static end-state but an ongoing process of mutual adaptation between business and IS strategies in response to environmental turbulence and organisational change (Benbya and McKelvey, 2006). This view highlights the importance of continuous learning and reciprocal adjustments, where alignment emerges through iterative cycles rather than one-off design efforts. The Enterprise Architecture view, with the Co-evolutionary perspective on strategic alignment, utilised as a mediating perspective - capability maps, architectural states and standards - that stabilises meanings (social) by means of structured documentation, set boundaries for agreed design (intellectual), and accelerates delivery success (operational).

This research conceptualises strategic alignment (Henderson and Venkatraman, 1993) as a higher-level process encompassing the full spectrum of strategy design, development, and execution - including the planning and delivery of IS initiatives as well as the support and maintenance of an evolving technology landscape - rather than as a discrete process itself.

Collectively, these contributions respond to sustained calls to open the “black box” of alignment work by offering thick, mechanism-level explanations of how alignment is created, sustained and adjusted in practice (Orlikowski and Iacono, 2001; Chan and Reich, 2007a; Karpovsky and Galliers, 2015; Dairo et al., 2021; Őri and Szabó, 2024) through which engagement mechanisms are encoded and sustained across cycles.

7.4.2.1 Theoretical Contributions

The primary theoretical contributions constitute the core set of conceptual developments, explanatory mechanisms, and integrative theoretical insights that directly address the predefined research objectives. The primary theoretical contributions of this research are summarised as follows.

First, this research provides a detailed, actionable process theory for strategic alignment by specifying a phase–stage–artefact architecture that is documented as part of the *Strategic Alignment Process Framework* with an objective of demystifying the “how” of strategic alignment. Unlike previous models and frameworks available

(Henderson and Venkatraman, 1993; Reich and Benbasat, 2000) in the strategic alignment literature that remain abstract or static (Chan and Reich, 2007a; Luftman et al., 2017), this framework breaks down strategic alignment into observable phases, stages, and tangible IS artefacts that serve as boundary objects for shared understanding and decision-making. By doing so, it addresses a long-standing gap in the literature, offering a replicable template for how intellectual and operational alignment are constructed and evidenced in real organisational contexts.

Second, this research conceptualises strategic alignment as a dynamic, cyclical, and co-evolutionary process (Benbya and McKelvey, 2006) - an iterative loop termed *Strategic Alignment Lifecycle Loop* - anchored in the *Strategic Alignment Process Framework* and cycling through strategic sensing, strategic interpretation, and strategic enactment. This approach integrates processual and co-evolutionary perspectives, moving beyond linear or end-state views of alignment (Chan and Reich, 2007a). The Strategic Alignment Lifecycle Loop theorises how organisations continuously re-baseline assumptions and realign IS capabilities with evolving business strategies, providing a robust explanation for how alignment is created, sustained and adjusted in response to internal and external change.

Third, this research offers a thick, mechanism-level explanation of how social alignment is produced (Reich and Benbasat, 2000) and sustained by developing the *Executive Manager Engagement Cycle*. The dual-cycle model of Strategic Enablement (inputs of Executive Managers) and Strategic Empowerment (gains of Executive Managers) details the cognitive, relational, and political work that Executive Managers perform to build trust, shared understanding, commitment and business results. This contribution moves beyond structural proxies for engagement (Orlikowski and Iacono, 2001; Jenkin et al., 2019; Moeini et al., 2019), providing a nuanced account of the micro-mechanisms (enablers and antecedents) that underpin social alignment and its role in the broader alignment process.

Secondary theoretical contributions are the unplanned yet analytically significant insights that emerged during the research but were not part of the predefined objectives. These contributions extend and deepen the theoretical understanding beyond what was originally scoped. They are summarised below.

The key theoretical innovation of this study is the proposal to introduce Financial Alignment as a distinct and recurring alignment type (Gerow et al., 2014, 2015, 2016). This is considered within the secondary group of theoretical contributions, since this was an emergent theme came out of the field study, and it was not part of the predefined research objectives.

The research demonstrates that the mechanisms of Financial Alignment are commercial scrutiny and value justification, affordability testing, staged funding aligned to budget cycles, and value scorecards, its boundary conditions include regulated, public accountability contexts similar to regulated industries, and its causal role mediates intellectual-to-operational alignment under constraints and strengthens social alignment through shared financial logic. By formalising Financial Alignment and detailing its mechanisms, the study extends existing alignment typologies and highlights the importance of financial discipline and accountability in sustaining alignment, especially in regulated and resource-constrained environments. By explicitly linking Financial Alignment to contingency theory (Drazin and Van de Ven, 1985; Chan and Reich, 2007a), the thesis demonstrates how alignment is not a static fit but a dynamic, iterative process of adaptation to financial and contextual realities. This contribution advances both the theory and practice of IS strategy by showing how financial alignment can drive design improvement, strategic learning, and value optimisation.

This research also advances a systems view of alignment (Benbya and McKelvey, 2006) by theorising the bidirectional, cross-type feedbacks between intellectual, social, operational, and financial alignment types. Rather than treating these types as parallel or additive, the research specifies their causal interdependencies and locates each within the Strategic Alignment Lifecycle Loop and Executive Manager Engagement Cycle. This integrative perspective aligns with co-evolutionary theories and provides a more holistic, multi-level explanation of how alignment is achieved and sustained over time.

Finally, this research also observed enterprise architecture (EA) view as a critical mediating scaffold (Orlikowski and Iacono, 2001) that translates executive engagement into durable intellectual and operational alignment. By functioning as a set of boundary objects (IS Artifacts) - such as capability maps and architectural states and standards - EA stabilises meanings, set boundaries for design, and accelerates delivery. This contribution supports the theoretical understanding of EA's role in the strategic

alignment (Valorinta, 2011; Ivas et al., 2026), showing how it serves as the material conduit through which engagement mechanisms are encoded and sustained across cycles.

7.4.2.2 Empirical Contributions

This research advances the strategic alignment literature by offering a rare, multi-case study of alignment processes in the Irish network utility organisations - a regulated sector and national context previously unexplored - providing a rich, practice-based account of alignment in electricity, gas, and water networks. It delivers a detailed, empirically grounded mapping of alignment phases, stages, and IS artefacts, addressing long-standing calls for granular, actionable descriptions of alignment work beyond conceptual or survey-based models. The study also provides nuanced evidence on how Executive Managers engage throughout the strategic alignment process, revealing mechanisms of involvement and influence rather than relying on structural proxies. Furthermore, it empirically identifies Financial Alignment as a critical, recurring practice, showing how financial scrutiny, value justification, and staged funding shape alignment decisions in resource-constrained, regulated environments. Finally, it demonstrates how alignment is sustained through iterative cycles of sensing, interpretation, and enactment, offering empirical support for dynamic, co-evolutionary models and practical guidance for maintaining alignment in complex contexts.

7.4.2.3 Practical Contributions

This research delivers several practical contributions for organisations seeking to achieve and sustain strategic alignment in complex, regulated, and resource-constrained environments. It provides a comprehensive, evidence-based framework for structuring and managing alignment, including a phase-stage-artefact process model that moves beyond abstract concepts to offer a concrete, step-by-step guide for diagnosing and improving alignment practices. By cataloguing key IS artefacts and demonstrating their use as boundary objects, the study equips practitioners with actionable tools and templates for enhancing communication, governance, and traceability, while also enabling maturity assessment and gap analysis.

The research translates executive engagement from a conceptual ideal into a set of observable, evidence-based leadership practices, offering guidance on purposeful time management, preparation and framing, networked engagement, and value-driven dialogue. These insights help organisations design and institutionalise effective engagement routines, fostering shared ownership and accountability.

It also operationalises Financial Alignment as an integral component of strategic alignment work, providing practical frameworks for embedding commercial scrutiny, staged funding, and value justification into strategic alignment routines. This enables organisations to ensure that IS investments remain strategically aligned, fundable, and defensible, while supporting transparent communication with boards and regulators.

Finally, the study demonstrates how Enterprise Architecture (EA) can be leveraged as a strategic enabler rather than a compliance artefact. By embedding EA artefacts throughout the alignment process, the research shows how they can function as living tools for encoding executive intent, coordinating stakeholder action, and sustaining alignment over time. Collectively, these contributions offer practitioners a practical, adaptable toolkit for enacting, documenting, and sustaining strategic alignment in dynamic and challenging contexts.

7.4.2.4 Methodological Contribution

This research makes a methodological contribution by demonstrating how a multi-strategy, artefact-centred approach can be used to build robust, mechanism-aware process theory in strategic alignment. By integrating temporal bracketing, narrative strategy, process analysis, thematic analysis, and grounded theory coding, the study offers a replicable analytic design that balances empirical richness with theoretical parsimony. A key innovation lies in its IS artefact-centred orientation, which anchors analysis in tangible outputs and decision episodes, enabling “thick descriptions” of alignment mechanisms and collaborative practices. This approach not only enhances the credibility and transferability of findings but also provides a practical template for future research in strategic alignment. By combining within-case narratives, cross-case patterning, and iterative coding cycles, the study demonstrates the value of methodological pluralism for capturing the complexity of strategic alignment.

7.5 Reflections on the Research Journey

The journey of this research has been both intellectually rigorous and personally meaningful, shaped by a commitment to bridging the gap between academic theory and organisational practice. From the outset, the study was motivated by a desire to address persistent challenges in strategic alignment and Executive Manager engagement therein - issues that have remained at the forefront of both scholarly debate and management concern for decades.

The research process was grounded in a qualitative, process-oriented methodology, drawing on grounded theory strategy and thematic analysis to capture the complexity and dynamism of alignment work in network utility organisations in Ireland. This approach enabled a deep exploration of lived experience, allowing the study to move beyond surface-level descriptions and uncover the mechanisms, IS artefacts, and practices that underpin effective strategic alignment. The iterative cycles of data collection, coding, and conceptual abstraction were both demanding and rewarding, requiring ongoing reflexivity, adaptability, and a willingness to engage with ambiguity and complexity.

One of the most significant aspects of the research journey was the evolution of thinking around strategic alignment. Initial engagement with the literature revealed a landscape dominated by static models and normative prescriptions, often disconnected from the realities of organisational life. Through sustained fieldwork and analytic induction, the study gradually shifted toward a processual and lifecycle perspective, recognising alignment as a dynamic, cyclical phenomenon that unfolds through negotiation, adaptation, and feedback. This conceptual leap was enabled by the richness of the case study data and the willingness to challenge established assumptions.

The engagement with Executive Managers provided unique insights into the nature of leadership, influence, and value creation in strategic alignment. The research benefited from the openness and candour of participants, whose reflections and experiences illuminated the nuanced realities of executive involvement. The process of mapping engagement mechanisms, attributes, and outcomes was iterative and

collaborative, shaped by ongoing dialogue with participants and informed by both theoretical and practical considerations.

Methodologically, the research journey was marked by a commitment to rigour, transparency, and reflexivity. The use of multiple data sources, triangulation, and iterative coding enhanced the credibility of the findings, while ongoing reflection on researcher bias and positionality ensured that the analysis remained grounded and context-sensitive. The challenges of access, confidentiality, and interpretive validity were navigated with care, and the study benefited from the support and guidance of my academic supervisor Professor Joseph McDonagh.

On a personal level, the research journey has been a source of growth, learning, and fulfilment. It has provided an opportunity to integrate professional experience with academic inquiry, to contribute new knowledge to the field, and to reflect on the broader significance of strategic alignment and executive engagement for organisational success. The journey has reinforced the importance of curiosity, perseverance, and collaboration in the pursuit of meaningful research.

In summary, the research journey has been characterised by intellectual exploration and personal engagement. It has resulted in a set of findings and contributions that advance understanding, inform practice, and lay the groundwork for future inquiry into the evolving dynamics of strategic alignment and executive engagement.

7.6 Limitations of the Study

This research demonstrates several key strengths. First, the multi-case, longitudinal design provides a rich empirical foundation that captures the temporal, iterative, and context-specific nature of strategic alignment work within regulated Irish network utility organisations. Second, the study offers significant theoretical contributions, most notably the development of a mechanism-level explanation of executive engagement through the Strategic Enablement and Strategic Empowerment cycles. Third, the research delivers a process and practice oriented Strategic Alignment Process Framework (phases–stages–artefacts) and a dynamic Strategic Alignment

Lifecycle Loop (sensing–interpretation–enactment), grounded in observable IS artefacts and governance routines, thereby addressing long-standing calls for processual and artefact-level operationalisation in the alignment literature. Finally, the study exhibits strong methodological rigour through transparent coding, triangulation of multiple data sources, reflexive practice, and participant validation, collectively enhancing the credibility and transferability of the findings.

While these strengths establish a robust empirical, theoretical, and practical foundation for the study, it is equally important to acknowledge the boundaries within which the findings should be interpreted (Walsham, 2002). First, the research is contextually bounded to three regulated network utility organisations in Ireland. While this setting provides rich insights into alignment in complex, resource-constrained environments, the unique characteristics of these organisations - such as regulatory cycles, long investment horizons, and established governance structures - may limit the generalisability of findings to other sectors, geographies, or organisational forms.

Second, the study relies primarily on qualitative case study methods, including interviews, document analysis, and process tracing. While multiple data sources and triangulation were employed to enhance credibility and Executive Managers were a central focus of the study, the perspectives captured are inevitably shaped by formal organisational roles and governance positions, meaning that some operational or informal viewpoints may be less visible in the data.

Third, the interpretive and process-oriented methodological approach introduces subjectivity in data interpretation and conceptual abstraction. Despite efforts to ensure reflexivity and transparency, the potential for interpretive bias remains an inherent limitation of qualitative inquiry.

Fourth, the study's focus on executive engagement and IS artefact-centred process models means that other dimensions of alignment - such as technology adoption, user experience, or informal organisational practices - are addressed primarily through the lens of senior and executive management. This may underplay micro-level or cross-functional dynamics that also shape alignment outcomes.

Finally, the theoretical frameworks and models developed are grounded in specific organisational episodes and contexts. While they offer actionable guidance and

theoretical advancement, their applicability to other settings should be tested through further empirical research, including longitudinal studies, comparative analyses, and quantitative validation. For example, the identification of Financial Alignment as a distinct alignment practice warrants additional investigation across diverse industries to assess its broader relevance and impact.

These limitations do not diminish the value of the study's contributions; rather, they clarify the scope conditions under which the findings should be interpreted and highlight opportunities for future research to extend, validate, and refine the proposed frameworks across different organisational contexts.

7.7 Practical Recommendations

Building on the findings and conceptual developments of this research, several practical recommendations can be offered to organisations and managers seeking to enhance strategic alignment between business and IS strategies.

First, organisations should approach strategic alignment as a continuous, cyclical process rather than a one-off event. Establishing clear phases, stages, and artefacts for strategic alignment work enables regular review, adaptation, and sustained coherence between business and IS objectives. Practitioners are encouraged to adopt the Strategic Alignment Process Framework that support ongoing alignment and facilitate responsiveness to changing organisational priorities and external conditions.

Second, executive engagement should be deliberately designed and managed. Effective engagement requires purposeful use of executive time, strategic preparation and framing of materials, and leveraging both formal and informal networks to build consensus and drive alignment. Senior managers should ensure that executive involvement is outcome-oriented, anchored in business value, and supported by clear communication and tailored artefacts.

Third, embedding financial discipline and accountability into strategic alignment work is essential. Organisations should institutionalise financial alignment as a core part of strategic dialogue, integrating commercial scrutiny, value justification, and budgetary alignment into decision-making processes. This approach supports robust business case

development, transparent investment prioritisation, and sustainable value realisation from IS initiatives.

Finally, the development and use of strategic IS artefacts - such as plans, capability assessments, and investment roadmaps - should be prioritised. These artefacts serve as central instruments for negotiation, communication, and operationalisation of alignment, and should be designed to be both actionable and adaptable.

By implementing these recommendations, organisations can move toward more adaptive, value-driven, and strategically integrated practices. The insights from this research provide a foundation for managers to structure alignment work more effectively, foster purposeful executive engagement, and ensure that IS investments deliver measurable business value.

7.8 Directions for Future Research

This research opens several promising avenues for future inquiry in the field of strategic alignment and executive engagement. First, there is a need to test and refine the Strategic Alignment Process Framework and Strategic Alignment Lifecycle Loop developed in this thesis across a broader range of organisational contexts. Comparative studies in different sectors, geographies, and regulatory environments would help assess the generalisability and adaptability of the phase-stage-artefact architecture, executive engagement attributes, and financial alignment routines.

Second, future research should explore the dynamics of alignment over time through longitudinal and mixed-methods designs. Longitudinal studies could provide deeper insight into how alignment is created, sustained, adapted, and renewed in response to organisational change, regulatory cycles, and technological disruption. Quantitative research could complement these insights by developing and validating measurement instruments for the mechanisms, artefacts, and engagement attributes identified here, enabling broader empirical testing and benchmarking.

Third, further investigation is warranted into the operationalisation and impact of Financial Alignment. Future studies could examine how financial scrutiny, value

justification, and budgetary alignment are enacted in different organisational contexts, and what effects they have on IS investment outcomes, strategic coherence, and business performance. Research could also explore the interplay between Financial Alignment and other alignment types - such as intellectual, social, and operational alignment - to clarify their interdependencies and collective influence on organisational success.

Fourth, there is scope for deeper exploration of the micro-dynamics of executive engagement and artefact use. Action research, ethnographic studies, or in-depth case studies could provide richer accounts of how executive engagement routines are developed, institutionalised, and evaluated in practice. Researchers might also investigate the role of informal practices, emergent behaviours, and organisational culture in shaping alignment work, complementing the artefact-centred and processual focus of this thesis.

Fifth, future research should consider the role of digital transformation, emerging technologies, and enterprise architecture in shaping alignment practices. As organisations increasingly adopt digital platforms, artificial intelligence, and data-driven decision-making, new challenges and opportunities for alignment are likely to emerge. Studies could examine how the frameworks and artefacts developed here can be adapted to support alignment in digital and rapidly evolving environments, and how enterprise architecture can be leveraged as a strategic enabler of alignment.

Finally, future research could address some of the limitations of this study by incorporating a wider range of stakeholder perspectives, including middle managers, technical staff, and external partners. Mixed-methods approaches, integrating qualitative and quantitative data, could provide a more holistic understanding of alignment dynamics and engagement processes. There is also potential for developing and testing diagnostic tools and maturity models based on the frameworks and attributes identified in this research.

In summary, this research lays a foundation for a more nuanced, processual, and actionable understanding of strategic alignment. Future studies can build on these insights to further refine theoretical models, develop practical tools, and enhance the effectiveness of alignment work in diverse and evolving organisational landscapes.

7.9 Final Remarks

Reflecting on the research journey, this thesis has sought to make visible the often-invisible work of strategic alignment and executive engagement within complex organisational settings. By moving beyond abstract models and static frameworks, the study has provided a nuanced, empirically grounded account of how alignment is enacted, negotiated, and sustained over time. The insights developed here are not only relevant for scholars and practitioners in the field of IS, but also for leaders and organisations navigating the challenges of digital transformation, regulatory change, and increasing complexity.

The research underscores the enduring importance of strategic alignment as a dynamic, cyclical, and collaborative process - one that requires purposeful leadership, robust artefacts, and continuous adaptation. By equipping organisations with practical tools, actionable frameworks, and a deeper understanding of the mechanisms that underpin alignment, this thesis contributes to bridging the gap between theory and practice. It is hoped that these contributions will support organisations in building greater resilience, agility, and value in an ever-evolving business and technology landscape.

Ultimately, the study reaffirms that effective alignment is not a one-off achievement, but an ongoing organisational capability - one that is built, renewed, and sustained through deliberate engagement, disciplined process, and a shared commitment to strategic purpose. As the field continues to evolve, it is anticipated that the frameworks, models, and insights developed here will serve as a foundation for further research, innovation, and impact in both scholarship and practice.

8 Appendices

Please refer to Volume 2 of the thesis.

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