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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 2 of 2

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8 Appendices

8.1 Appendix 1 | Research Overview

This appendix includes the research overview presentation provided to the case study organisations to secure approval for their participation in the research. The same slides were presented to each of the interviewee in the beginning of the interviews.



Research Overview

Nature of Engagement with Executive Managers to Create and Maintain Strategic Alignment

PhD Student | Cenk Kuzucu
Supervisor | Professor Joseph McDonagh



Research Question	How do executive managers engage with creating and maintaining 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?

- **Academic Contribution**
  - Process view and insights on phases/stages of strategic alignment process and its linkage to strategy development process and the involvement of key actors (i.e. executive managers),
  - Framework for executive engagement for strategic alignment that will complement previous studies and offer a holistic view of strategic alignment.
  - Examining the role of executive engagement in social alignment in creating and maintaining strategic alignment.
  - Practical implications - the nature of executive engagement in strategic alignment and detailed definition of phases/stages of strategic alignment and the definition of underlying IT artefacts governing the strategic alignment process.



Strategy Process and Self Reporting Questions

- Target Audience
  - Senior Managers
- Open ended Questions

  Type-A Interview Questions
  - Can you please outline the IS strategy and overview?
  - Can you outline the process you followed to develop the IS strategy to ensure strategic alignment over time?
  - Can you share information on the phases, stages and IS artefacts developed throughout the process?

  Type-B Interview Questions
  - What was your role and responsibilities?
  - Who were the Executive Managers involved as stakeholders?
  - How were they engaged? How was their engagement managed?
  - What type of inputs did Executive Managers provide across the phases?
  - What is your view on what they have get out of their involvement - during and after the engagement?
  - What did you get out of your involvement?

Insights / Artefacts to be sought

- Strategy Planning documents
- Definition of work products and deliverables
- Scope / Content overview of work products and deliverables
- Minutes of key sessions / Decision Papers etc.

Key Probing Aspects

- What was the level of focus on alignment between business and IS stakeholders?
- Were there any iterations over time?
- What were the key factors impacted the direction in the strategy development?

Executive Engagement Questions

- Target Audience
  - Executive Managers across IT and Business reporting to CEO/MD
- Open ended Questions

  Type-C Interview Questions
  - Can you please outline your involvement in the strategy development and execution?
  - What do you remember in relation to how you were approached and engaged with?
  - How was the interaction with the team and your peers during the engagement?
  - What input you provided to the strategy team?
  - What did you get out / gain as a result of the engagement with the strategy team and other participants during and after the engagement?
  - What is your current view/perception on the Strategy?

Insights / Artefacts to be sought

- Commentary provided to the Strategy team
- Minutes/Notes of key sessions

Key Probing Aspects

- Level of detail, and ways of engaging with the details
- Frequency, nature and duration of engagement
- Key discussion points that led further elaboration and change in the direction of the initial thinking
- Handling of disagreements/difference in opinion, conflicts, escalations
- Interaction with peers and decisioning process

Ways of Working

- At the beginning of each interview;
  - Communicate the purpose of study and research objectives.
  - Provide the research participant with an opportunity to ask questions or if clarification is sought on any aspect of the study.
- Reiterate to the interviewee the nature of the confidentiality and anonymity.
- Reiterate to the interviewee the full assurance of anonymity.
- Before each interview begins, request permission to record the session.
- Make every effort not to show any form of biased behaviour during the interview by offering personal opinions or influencing the respondent's answers.
- Keep interview length to the agreed time and schedule.
- Where possible and considered appropriate, request documentary evidence to support verbal information.
- Request permission for making contact via e-mail if required, to follow-up on any outstanding questions or to clarify any inconsistencies between interview data and documentary evidence.

8.2 Appendix 2 | Literature Review Approach

Hart (2018) defines literature review as an analysis, critical evaluation and synthesis of existing knowledge, relevant to the research problem, based on the selection of available documents which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic.

A Systematic Literature Review (SLR) is described as "a systematic, explicit and reproducible method for identifying, evaluating and synthesising the existing body of completed and recorded work produced by researchers, scholars, and practitioners" (Fink, 2005, p. 3). There are several guidelines published in IS field to assist researchers in conducting rigorously executed systematic literature reviews (Webster and Watson, 2002; Okoli and Schabram, 2010; Paré et al. 2016).

The following steps have been iteratively taken to conduct the literature review for the thesis during the course of the research period between 2019 and 2025.

The following objectives have been set in order to establish a full understanding of strategic alignment literature that has evolved over the last half century;

- Investigation of the origins of IS discipline and the origins of arising need for strategic alignment discourse by reviewing relevant prior literature in related areas
- Establishing a list of antecedents, drivers, challenges and benefits of strategic alignment
- Understanding of the evolution of key concepts, models and academic thinking on the topic
- Providing clarity on the boundaries of the research and provision of support to develop theoretical framework.

There are a few key important considerations taken into account in order to conduct a systematic and transparent (Paré et al. 2016) literature research, these include specifying the online library databases and search engines to be used that impacts the identification of credible and reputable sources for the research, specifying the search strings (Schryen, 2015), setting the search perimeter for papers (e.g., Title,

Abstract, Subject, Key Words etc.), timespan for the search (Bandara et al., 2015), and the reference management tooling. The table below outlines the settings utilised for the search of available literature in the process of studying on this thesis.

Table 1 - Search Settings for Literature Review

Settings	**Description**
Online Library Databases	All Databases across Web of Science (WoS), Scopus, ABI/Inform (ProQuest) on the basis that IST is an interdisciplinary field straddling other disciplines, and objective was to ensure that this research provides appropriate coverage (Webster and Watson, 2002)
Download of Files	TCD Library e-journal access is fully utilised, where needed physical copy of the printed journals requested from the TCD Library. External websites are also utilised to gain access to the source documents.
Search String	(("information syste*" OR "Operatio* syste*" OR "Technolog*" OR "Operatio* Technolog*") AND ("alignment" OR "strategic alignment" OR "business-it alignment" OR "business and it alignment" OR "alignment model" OR "it-business alignment" OR "it and business alignment" OR "IT strateg*" OR "digital strateg*" OR "digital business strateg*" OR "fit" OR "integration" OR "linkage" OR "bridge" OR "harmony" OR "fusion" OR "synerg*"))
Search Perimeter	"Topic" setting (covers Title, Abstract, Author Keywords, Keywords Plus) in Web of Science "Article title, Abstract, Keywords" setting in Scopus "Anywhere" setting in ABI/Inform
Timespan	No limitation, with multiple iterations[1]
Reference Management Tool	EndNote is utilised as the reference management tool, and the following custom fields were used to further categorise the search results; Source: Source of reference is recorded for traceability purposes (WoS, ABI/Inform or Scopus) Relevance: Binary result record based on its relevance (Yes or No) Decade: Decade of the published article date AJG Rating: AJG Rating of the Journal in 2018 (Latest list available of September 2020) Duplicate Check: Duplicate check result (Yes or No)

[1] Initial search conducted in December 2019, and revised to reflect the first half in 2020. It is was then refreshed in 2022 and then in 2024 to update this section of the thesis during the research period. Final Update is done in October 2025 before the final submission with the same settings to include the latest updates to the academic literature inventory that is included in Section 9 of this thesis. AJG mapping was based on 2018 rankings, and updated in October 2025 based on the latest rankings.

Once the search results are exported to EndNote from different search engines utilised, duplicate results were defined and recorded via EndNote duplicate check feature. The following criteria is then applied in the selection for further review of literature while title and abstract information is reviewed for each of the unique search results;

- English language publications;
- Peer-reviewed journal articles with key focus on strategic alignment in the abstract - the full paper is found, downloaded[2] and reviewed where Researcher had doubt of its relevance based on the exported information available in EndNote;
- Backward and forward reference search results of selected articles, which were deemed important by the Researcher based on the abstract and full text review, are also reviewed with the above criteria.

The initial search based on the criteria and the databases employed by the Researcher produced just over 11,000 records.

Based on the title and abstract information review including the elimination of duplicates, the size of the corpus was reduced down to 1,990 individual records. At that stage, meta-data about the historic records were fully captured based on AJG 2018 ratings.

The table below outlines the breakdown of these records before and after the completion of the detailed review and the development of the Literature Review section of this thesis.

[2] Google Scholar (https://scholar.google.com), Semantic Scholar (https://www.semanticscholar.org) and Research Gate (https://www.researchgate.net) are also used to gain full access to the downloadable file. Contact with the author(s) is established via Research Gate when needed and available.

Table 2 - Literature Review Volumetrics - Type and Category Breakdown

Type and Category of Records		# of Records	
		Before	After
Journal Article	4* (AJG 2018)	327	112
	4 (AJG 2018)	173	30
	3 (AJG 2018)	608	146
	2 (AJG 2018)	298	46
	1 (AJG 2018)	39	7
Other Periodical Journal Articles		292	61
Non-Periodical Journal Articles		45	20
Proceedings		92	29
Editorials and Books		116	48
Total		**1,990**	**499**

The table above reflects the extant literature that was established as a baseline in the period between 2019 and 2021. Over the course of the research period until the end of December 2025, the Researcher had continued to review literature and finalised the full set of Bibliography that is included in Chapter 9 of this thesis. The table below outlines the historic profile of the finalised bibliography reflected in this thesis based on the AJG 2024 rankings.

Table 3 - Bibliography Volumetrics - Breakdown with Historic Profile

Type and Category of Records		# of Records								Grand Total
		50s	60s	70s	80s	90s	00s	10s	20s	
Journal Article	4* (AJG 2024)		1	3	19	29	26	32	9	**119**
	4 (AJG 2024)				4	2	9	17	5	**37**
	3 (AJG 2024)		1	4	11	15	33	65	16	**145**
	2 (AJG 2024)			3		7	10	19	2	**41**
	1 (AJG 2024)				1	4	3			**8**
Other Periodical Journal Articles		0		1	1	6	11	18	24	**61**
Non-Periodical Journal Articles		0		1		1	3	1	7	**13**
Proceedings		0		1			2	14	12	**29**
Editorials and Books		2	2	5	6	9	15	22	22	**83**
Total		**2**	**10**	**17**	**51**	**88**	**136**	**198**	**51**	**553**

8.3 Appendix 3 | Strategic Alignment Models

In this section, an historic review of the strategic alignment models is outlined.

8.3.1 Diamond Model

Leavitt and Whistler (1958) published a seminal article where they articulated the potential impact of the new technology for management and organisations. In 1965, Howard Leavitt introduced his diamond model, which was also referenced as Leavitt's balancing act by Scott Morton and Rockart (1983) who suggested to consider the model as an act of maintaining balance of several components (tasks, people, technology, and structure).

Leavitt's model suggested that every organisational system is made up of four main components: People, Task(s)/Goal(s), Structure and Technology to illustrate the complex nature of social systems. Leavitt (1965) emphasised that changing one of these elements has a direct effect on all other elements and argued that all components must work in coordination with one another and keep the organisation balanced.

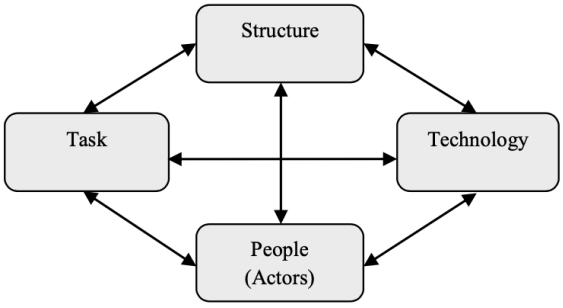


Figure 1 - Adapted from Leavitt (1965)

Leavitt's research focus area was on organisational change management, and his model was a representation of how to have a successful integrated change. However, among many other contributions he made to the academia, diamond model can be considered as the first strategic alignment model and provided inspiration in the development of the initial models in 1980s and 1990s.

8.3.2 IS Growth Model

Nolan's original four-stage model (Gibson and Nolan, 1974) was later revised and enhanced into a six-stage model (Nolan, 1979) has become the one of the most influential articles in IS literature and in practice even though it lacks empirical evidence and includes simplistic assumptions for its limited scope (Galliers and Sutherland, 1991).

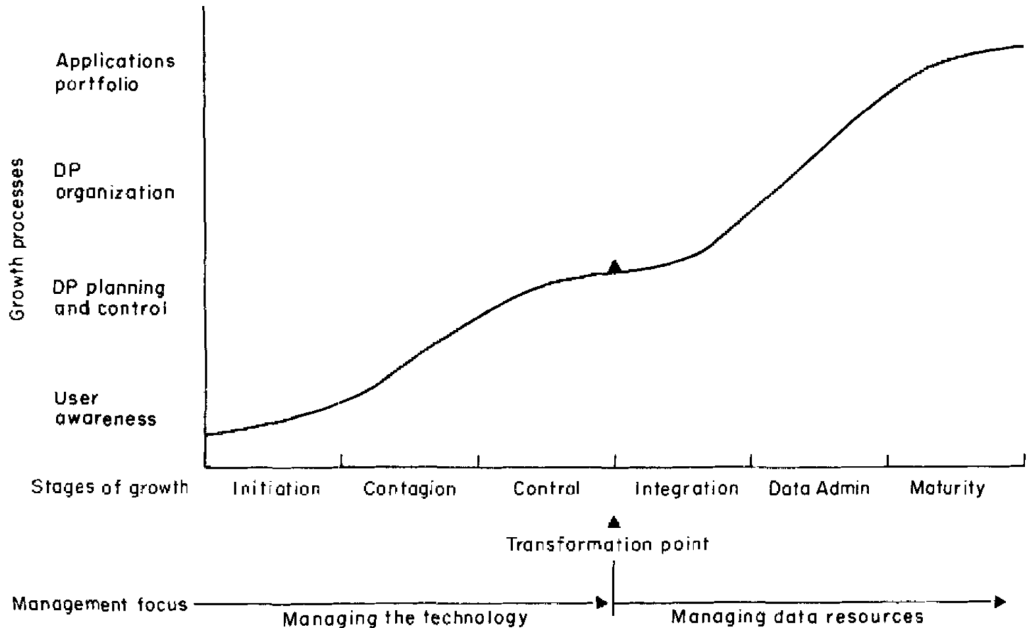


Figure 2 - Nolan's Six-Stage Growth Model (Adopted from Nolan, 1979; Galliers and Sutherland, 1991)

Nolan's IS Growth Model emphasises that that the growth of IS in an organisational setting can be identified by the ratio of spent on data processing (DP) over financial revenue of the organisation, postulating that this expenditure profile would follow an S-curve over time, representing the learning path with respect to the general use of IS within the organisation.

8.3.3 Earl Model

Earl's model has been revised several times by the author (1983, 1989) and is focused on the stages through which organisations pass over time in planning their IS. His model was building on the phases conceptualised by Nolan (1979), however his

contribution with this model is for the introduction of S-curves representing technology diffusion and adoption that occurs over time (Earl, 1989).

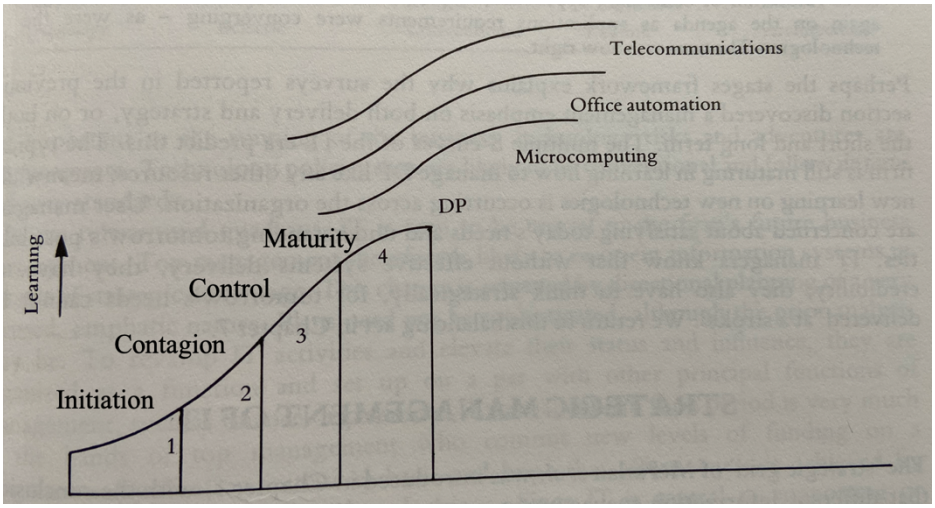


Figure 3 - Earl's Model - adapted from Earl (1989)

Earl (1989) argued that S-curves of learning is repetitive for each new technology being introduced, and organisations journey through the curves based on their anticipation capability for the next stage and their success in avoiding either an excessive crisis or undue retardation in the evolution journey.

8.3.4 MIT90s Model

Reflecting the futuristic title of the article from Leavitt and Whistler (1958), a research programme named “Management in the 1990s” (MIT90s), was funded in 1980s by industry and governmental agencies. The objective of the research programme was to establish a better understanding of the managerial issues of the 1990s and how to tackle with the issues revolve around anticipated advances in Information Technology. Research conducted in the 1980s at MIT was an initial attempt to structure the ideal linkages between the key elements of strategy, technology, structure, management processes (including wider set of processes), and individuals and roles that will support alignment.

Scott Morton and Rockart (1983) developed a model consisting of five sets of forces in dynamic equilibrium among themselves for IS and organisational change based

on the perspectives that strategy drives structure (Chandler, 1962) and the diamond model (Leavitt, 1965) that was explained earlier in this section.

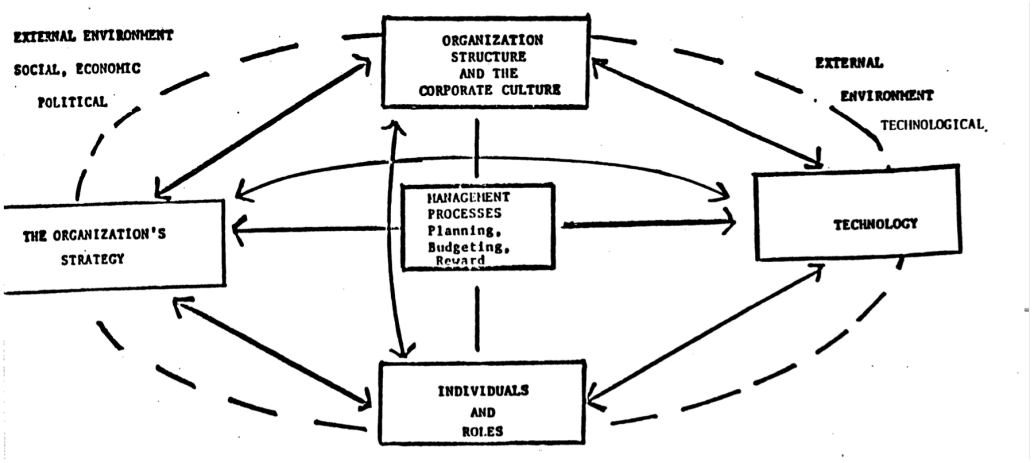


Figure 4 - MIT90's Model, adapted from Scott Morton and Rockart (1983)

There are several valuable additions that can be observed when compared to the diamond model.

- "Goal(s)/Task(s)" component was changed to "Organisation's Strategy", and this does not contradict with the original concept introduced by Leavitt (1965). Authors considered the impact of IS as the most significant factor on an organisation's strategy.
- Addition of "Management Processes" as a new component interacting with the other components as "permeable membrane" (Rockart and Scott Morton, 1984, p. 14). Authors considered the management processes as a glue holding the organisation together and to define processes in order to reflect on what is done in an organisation.
- "Structure" component was extended to include corporate culture which was an emerging area of research at the time. Authors also considered this as a complementary addition to the notion of structure based on its origin outlined by Chandler (1962).

In their article, authors reflected on the advancements in technology with examples of electronic email, video conferencing and centralised databases, and noted the increased significance of technology and its potential future impact. Their model

considered that IS is a key enabler of strategic direction and pointed out the importance of finding the linkage between strategic ideas and the application of IS .

8.3.5 Itami and Numagami Model

The model developed by Itami and Numagami (1992) describes a process where balance between strategy and technology is maintained by the organisation. The model articulates when the technology gets accumulated (either planned or unplanned underlying eventualities) over time with much greater future potential than necessary to meet current needs, the balance is reached to provide wider choices to the organisation as revisions of the strategy will be balancing factor. On the contrary, if technology stays behind the business potential needed to execute the business strategy, technology investments will be increased to meet the potential need to support business strategy.

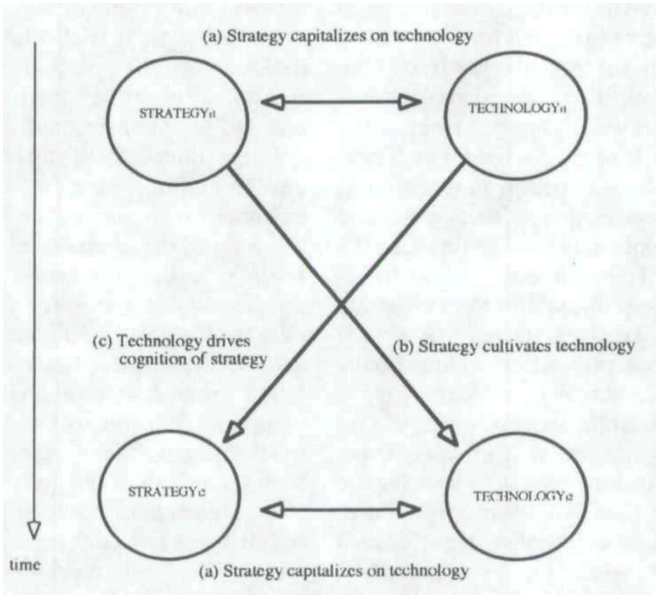


Figure 5 - Itami and Numagami Model - adapted from Itami and Numagami (1992)

Ciborra (1997) considers the model outlined by Itami and Numagami (1992) as a supporting theme to his “cultivation” term as the dynamic interaction between current strategy and future technology. Ciborra considers Toyota’s lean product system as an outcome of technology investments made out of necessity to cope with short term problems, but in return, he considers that those investments planted the seeds to Toyota’s later strategy to become an internationally competitive manufacturer (Ciborra, 1997).

8.3.6 Strategic Alignment Model

The initial article conceptualising the Strategic Alignment Model (SAM) written in 1990, with a further revision issued in 1993 by Henderson and Venkatraman (1990 and 1993) and have become the most widely cited seminal paper in relation to strategic alignment. It is also described as the “jewel in the crown” from the MIT90s programme (MacDonald and Yapp, 1992).

In addition to the MIT90s model outlined earlier, there had been a few other frameworks proposed (Henderson and Venkatraman, 1990) at the time, including the adaptation of Porter’s (1985) five forces model on IS (McFarlan, 1984), strategic positioning of IS within the firm (Parsons, 1983), IS Value and Impact framework (Hammer and Mangurian, 1987), (Wiseman and Earl at the library). Henderson and Venkatraman (1990) considered the existing frameworks and models and addressed the role of organisational transformation that acts as the glue between technology and business in their model, with the clear understanding of the intrinsic and dynamic nature of strategy.

The objective of the SAM was to provide a journey guide to organisations in order to establish a continuous link between the internal and external requirements of IS enabled transformation and the utilisation of IS capabilities to improve competitiveness.

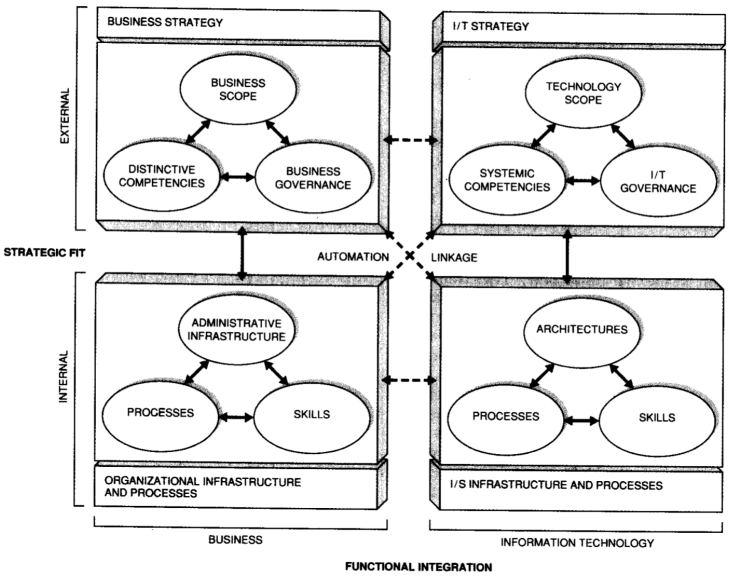


Figure 6 - Strategic Alignment Model - adapted from Henderson and Venkatraman (1993)

SAM illustrates four domains to be aligned via six alignment dimensions (types) (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. These include;

- alignment between business strategy and IT strategy (intellectual or strategic 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).

SAM model proposes that the strategic alignment fundamentally based on the concept of strategic fit and functional integration (Henderson and Venkatraman, 1993).

Strategic fit reflects the need for strategy to address external and internal environment that the organisation operates in and includes the balance of the choices organisations make between external domain (IST scope, system competencies, governance) and internal domain (IST architecture, processes and skills). The second foundational concept, functional integration, reflects strategic integration and operational integration. Strategic integration articulates the link between the internal and external components of business strategy and IS strategy. Operational integration reflects the harmony between the organisational infrastructure and IS infrastructure including their associated underlying processes, ensuring internal coherence among the organisational requirements and internal delivery capabilities (Henderson and Venkatraman, 1993).

According to Henderson and Venkatraman (1993), the model illustrates strategic alignment as a set of interrelationships among the four fundamental components including business strategy, IS strategy, organisational infrastructure and processes, and IS infrastructure and processes. The notion of "cross-dimension alignment" suggests that neither strategic fit nor functional integration alone is sufficient. The model suggests that to achieve organisational-level alignment between business and IS in an organisational setting, it is essential to have all of the components across domains work together and attain a balance.

SAM is not only an strategic alignment model itself, but also a manifesto for the definition of what IS strategy is all about. It calls for a mindset shift on the IS function, shifting the boundaries of this function from internal orientation to the scope of technologies in the marketplace. This approach iterates the important role of IS function and its management team to collaboratively drive business competencies by means of providing IS enabled change drivers that business can turn into competitive advantage in the market (Henderson and Venkatraman, 1993).

SAM is considered as a significant step in the IS strategic alignment discourse for the conceptualisation of strategic IT alignment. It has received significant empirical support over the years since it had conceptual and practical value (Avison et al., 2004). There has been considerable amount of research since the seminal article was re-published in 1993, extending and refining the original model.

SAM combines the descriptive and prescriptive aspects of alignment (Chan and Reich, 2007a). Although the authors clearly articulated the intrinsic and dynamic nature of the strategy formation and did not provide any boundaries for the timeline of the model application in the original article, SAM has been criticised for relying on a mechanistic view of the company and its static nature to effectively sense and respond to challenges within the operating environment of the organisation (Smaczny, 2001).

Bryd and Szeto (2000) used SAM in their study and found significant differences across the different industries, and challenged the model's validity in multi industry context for different levels of IS dependency in organisational settings. The authors also claimed that technology dependent industries should follow the leaders in their respective industries and focus on technology transformation and competitive potential.

SAM continues to be the mostly recognised model for strategic alignment. Reynolds and Yetton (2015) employed SAM to reframe the theory of multi business unit corporations and their IS alignment to provide explanations of how IS creates value both within and between the corporate level and the single business unit level over the investment cycle.

8.3.7 Baets Model

Baets's model is also an outcome of the MIT90s programme and has similarities with the models developed at the time. According to Chan and Reich (2007a), Baets (1992) builds upon MacDonald's (1991) Alignment Model as well as Parker, Benson and Trainor's Enterprise-wide Information Model developed in 1998, and Rockart and Scott Morton's (1984) MIT90 model to develop the Strategic Alignment Process Model.

Baets's strategic alignment process model illustrates the strategic alignment as a dynamic loop between the four components (business strategy, IT strategy, organisational infrastructures and processes and IS infrastructure and processes) interacting with each other. These alignment constructs are similar to the SAM model (Henderson and Venkatraman, 1993) since both models are built based on the reflections of the MIT90 model.

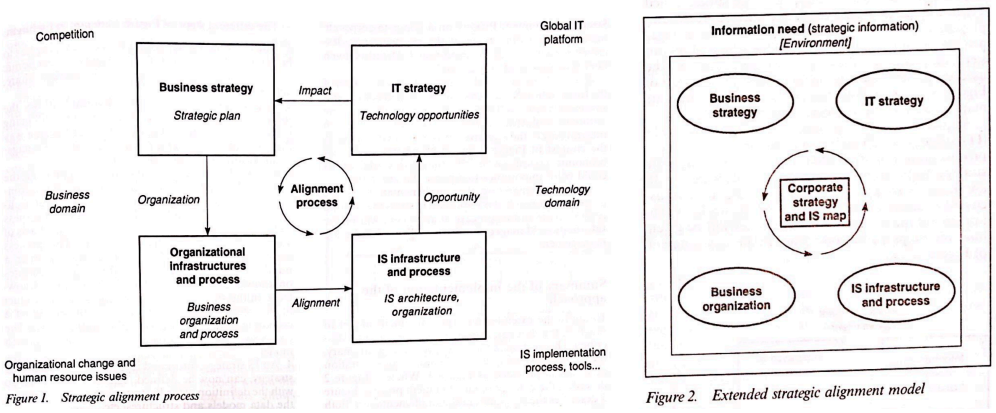


Figure 7 - Baets Model, adapted from Baets (1992)

According to the Researcher, the major difference in this model is the focus on information needs of the organisation, raising the importance of communication and shared understanding and vision of the company among the IS and business staff. Baets (1992) not only re-iterated the importance of the dynamic nature of strategic alignment process, but he also put an emphasis on the evolving nature of the information needs of the organisation driven by the external and internal (i.e. the global IT platform, competition, business and technology domains, organisational change, human resource issues, and IS implementation processes) environment related challenges. Baets (1992) also introduced the idea of economic justification instead of financial value analysis for the IT investments in the form of a strategic alignment map that he suggested to be developed for each industry.

8.3.8 IS Success Model

Delone and Mclean (1992) introduced IS Success Model, which has become one of the widely cited empirical study, that defined IS success as the dependent variable related with the following distinct dimensions; system quality, information quality, use, user satisfaction, individual impact, and organisational impact.

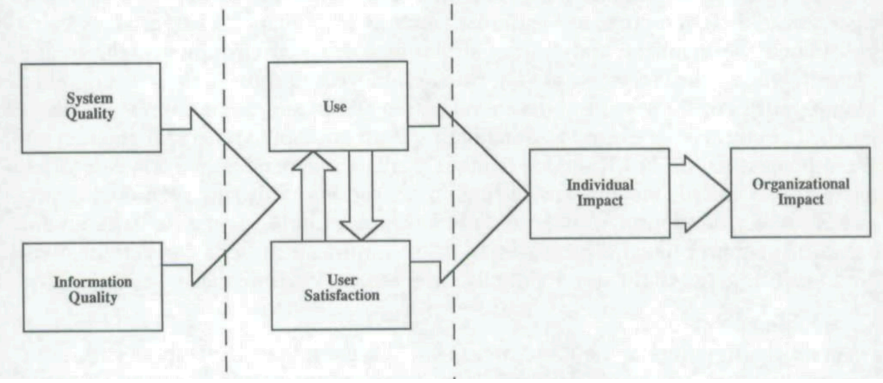


Figure 8 - IS Success Model, adapted from Delone and Mclean (1992)

In the period leading to 2003 from the publication of the original IS Success Model, some researchers suggested that service quality should be added as an additional dimension to the model reflecting the service aspect of IS function (Delone and Mclean, 2003). The authors enhanced their original model and issued another research article reflecting the additional observations aligned with the evolving research in the literature and advancement in IS and its functions providing the service within the organisational settings.

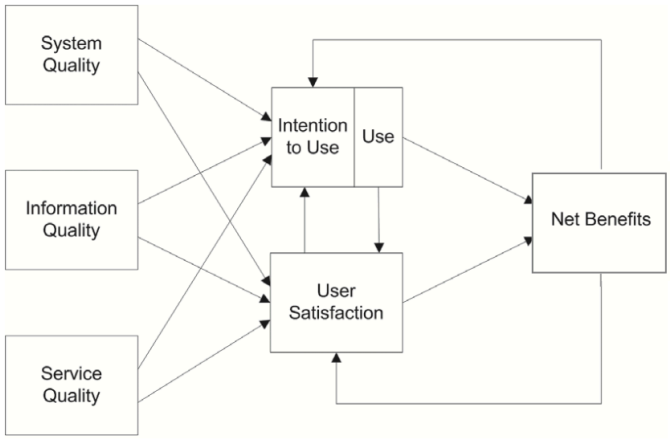


Figure 9 - IS Success Model, adapted from Delone and Mclean (2003)

The third and final iteration of the model introduced by Petter, Delone and Mclean (2013) to reflect on the lack of comprehensive and integrative research on variables that influence success and also to further explore the causes and influencers of IS success. The final iteration of the model examined the research published during the 15-year period between 1992 and 2007, and as a result provided a revised set of determinants that have been posited to affect one or more of the IS success factors grouped based on

three of Leavitt's (1962) dimensions of organisational change (i.e., task, people, and structure) (Petter et al., 2013).

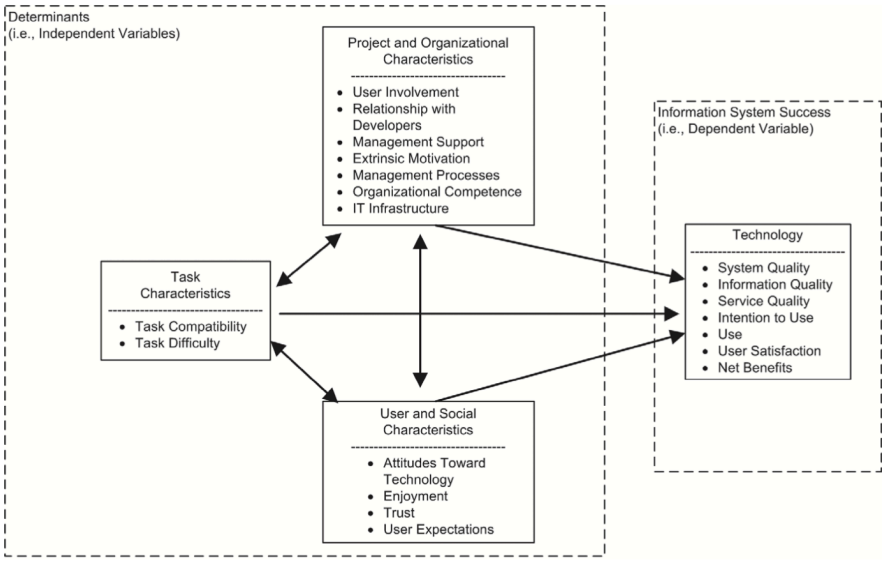


Figure 10 - IS Success Model, adapted from Petter, Delone and Mclean (2013)

Petter et al. (2013) identified seven dimensions (dependant variables) of IS success spanning across five success determinant categories (including task, individual, social, project, and organisational) and a total of 43 different underlying parameters based on the result of their meta-analysis. The authors iterated the same conclusion that the original authors reached in their original and revised models back in 1992 and 2003, that states that there is no one, single measure of IS success as it is a multidimensional construct, and in particular, they stated that "there is no "magic bullet" that can be used to cause IS success" (p. 38).

8.3.9 IBCA Model for Strategic Alignment

This model is developed as a result of a case study research conducted by Broadbent and Weill (1993) in four Australian banks. This model is considered by the authors as consistent with the recent models at the time, such as Earl (1989) and Henderson and Venkatraman (1993).

This model is referred as Information Based Comparative Advantages (IBCA) model (Leonard and Seddon, 2012) in the literature and describes the organisational practices and concepts that support and improve the IS Strategic alignment.

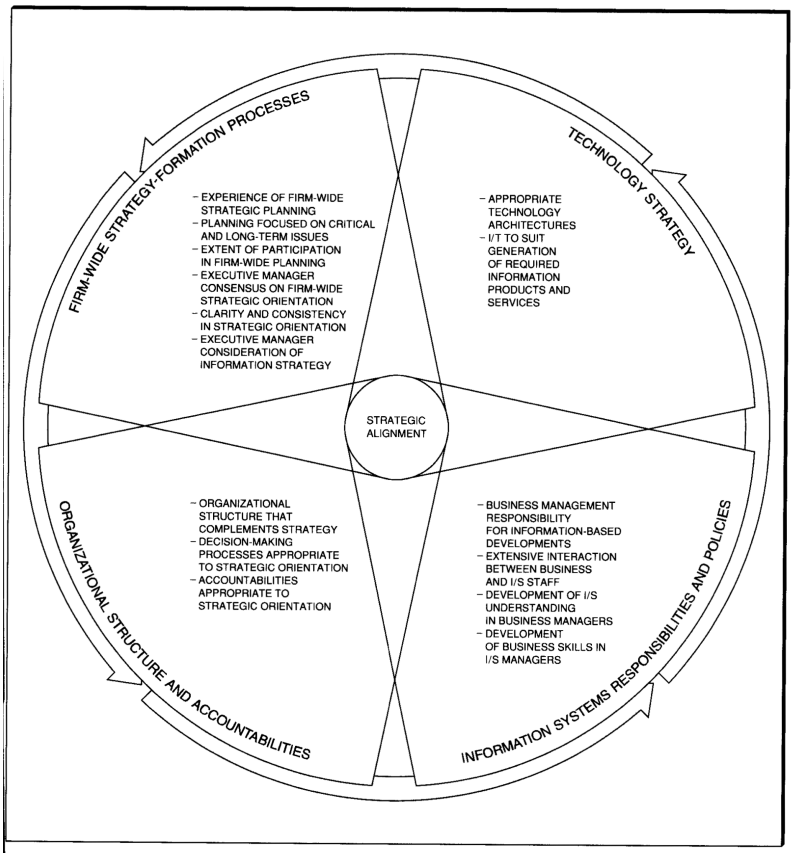


Figure 11 - IBCA Model for Strategic Alignment, adapted from Broadbent and Weill (1993)

The important element of this model is that it dives into the drivers of alignment by outlining the criticality of organisational practices including articulation of strategic directions, business and IS participation in the strategy formation processes, communication of strategy formation outcomes, business ownership of the IS developments and decisions, interaction between business and IS staff and senior management responsibility (Broadbent and Weill, 1993).

8.3.10 Unified Architecture Framework (UAF)

Nearly a decade after the introduction of SAM (Henderson and Venkatraman, 1990 and 1993), Unified Architecture Framework (UAF) was first introduced by Maes (1999) and then extended (Maes et al., 2000).

UAF was aimed to address some of the critique that have evolved in the literature towards the end of 1990s as part of the IS strategic alignment discourse. Starting from late 1980s, widespread of new technology implementations have surfaced the critical importance of business processes, structures and operations (Weill and Broadbent, 1998; Hayes and Upton, 1998), organisational culture (Ward and Peppard, 1996), data and information requirements (Lee and Leifer, 1992), and these new perspectives were reflected on the strategic alignment literature. UAF aims to enhance the Strategic Alignment Model (Henderson and Venkatraman, 1993) by adding one column (information and communication) and one row (structure) to reflect interaction between agents and include implementation aspect.

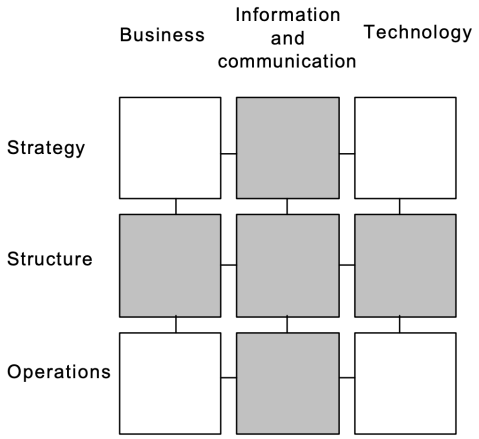


Figure 12 - Unified Architecture Framework (UAF), adapted from Maes et al. (2000)

The rationale of the additional row introduced by UAF is based on the argument that the design and management of an organisation is an architectural issue, and mandates a structure that requires contribution from business, information and technology architects (Maes et al., 2000). The authors also suggest that the middle row of UAF represents the bridge between the strategy and operational level including the competencies and infrastructures of the organisation.

The notion behind the additional column introduced by UAF is based on the belief that the use and the sharing of information (both internally and externally) and not its provision are of strategic nature (Maes et al., 2000). UAF considers the information as a common ground between business and IS , and argue that information requirements and the need for sharing among the organisation acts as a common language and improves

alignment (Maes et al., 2000). The internal and external information and communication aspects are represented in the middle column of UAF.

8.3.11 Reich and Benbasat Model

This model has been developed based on a case study research investigated 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.

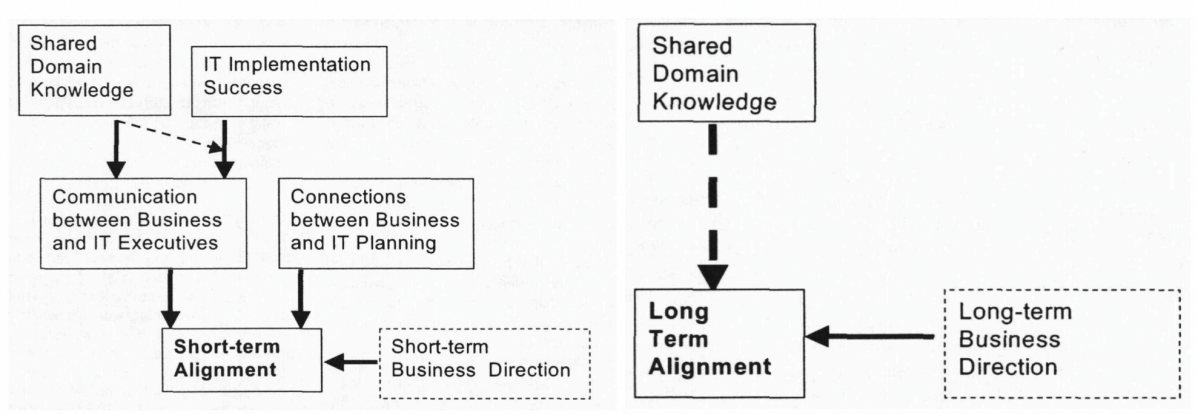


Figure 13 - Reich and Benbasat Model, adapted from Reich and Benbasat (2000)

Their research makes a distinction in relation to short-term and long-term alignment and emphasises that shared domain knowledge influences communication between business and IS executives more than the influence of IS implementation success in the short term (Reich and Benbasat, 2000). 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 knowledge domain.

8.3.12 Sabherwal and Chan Alignment Model

Miles and Snow (Miles et al.,1978) classification of business strategies were used to examine the strategic alignment and to identify profiles of IS strategy which are most

suitable for each business strategy type (Sabherwal and Chan, 2001). The study not only demonstrates an approach for integrating Miles and Snow's business strategies with Venkatraman's STROBE approach (Venkatraman, 1989) but also provides a model to emphasise the definition of business strategy and IS strategy as the two main domains for the alignment.

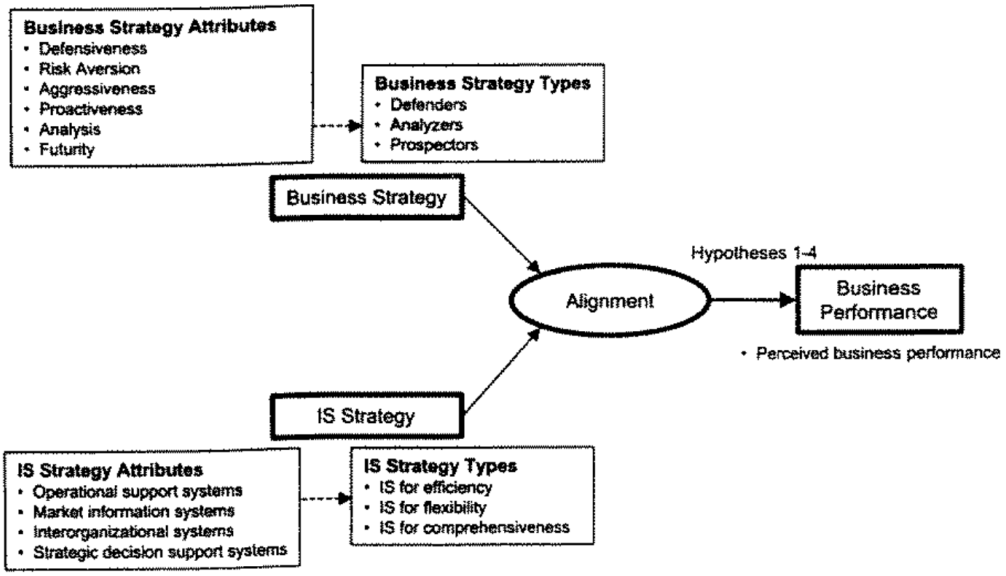


Figure 14 - Sabherwal and Chan Alignment Model, adapted from Sabherwal and Chan (2001)

The empirical findings coming out of their research suggested that IS strategic alignment is associated with the organisation's business success, therefore implying that the nature of IT investment is also a critical factor. Sabherwal and Chan (2001) also articulated that Defenders utilise IS investments for efficiency, prospectors for flexibility and Analysers use IS investments for competitiveness.

8.3.13 Punctuated Equilibrium Model

According to True et al. (1999), punctuated equilibrium theory seeks to explain why some processes, which are "generally characterised by stability and incrementalism, but occasionally they produce large-scale departures from the past" (p. 155). Punctuated equilibrium theory was initially developed in the field of biology, and it has also been employed to study organisational change (Silva and Hirschheim, 2007) including persistent gradualism, tectonic shift, and turbulent adaptation (Street and

Denford, 2012). Romanelli and Tushman (1994) considers punctuated equilibrium model as a prominent theoretical framework for explaining fundamental changes in patterns of organisational activity. The authors articulate that the majority of organisational transformations were accomplished via rapid and discontinuous change over most or all domains of organisational activity, and small changes in strategies, structures, and power distributions did not accumulate to produce fundamental transformations.

Sabherwal et al. (2001) considered the strategic alignment related literature limited based on its cross-sectional view, focusing only two dimensions based on strategy and structure and ever-evolving empirical studies to identify ideal alignment patterns. The authors argued that alignment is best viewed as a dynamic process, and punctuated equilibrium framework offers a better approach to examine alignment than the general static contingent models.

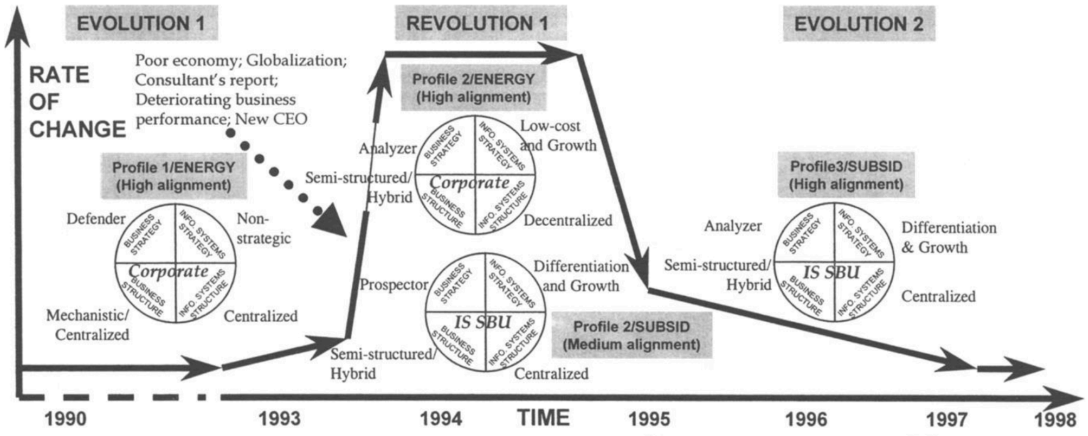


Figure 15 - Punctuated Equilibrium Model, adapted from Sabherwal et al. (2001)

Overemphasis, complacency and inertia are some of the possible reasons that might lead to relatively short periods of sweeping, revolutionary changes (Sabherwal et al., 2001) and "all the revolutions to require some combination of five strong triggers - environmental shifts, sustained low performance, influential outsiders, new leadership, and perception transformation" (p. 33).

Silva and Hirschheim (2007) conducted and explanatory case study in a governmental organisation and employed punctuated equilibrium model because of its emphasis on radical change occurring in extended periods of time. According to their findings, the role of the formal organisational structure is significantly influencing the

outcome, the impact of exogenous contingencies such as elections and external funding create a sense of crisis and newcomers who are brought in to solve the crisis has a role to play. Street (2006) proposed that alignment capabilities develop over time and the alignment capabilities of organisations that experience episodic punctuations were weakened by the change, while those that did not strengthened their capabilities over time.

8.3.14 Hu and Huang Model

In a case study research, Hu and Huang (2006) analysed the strategy-driven management systems for IS strategic alignment based on Reich and Benbasat (2000) model and explored how firms can use the balanced scorecard as a mechanism to achieve alignment. Their findings suggest that active relationship management enhances the communication between IT and other business departments, shared domain knowledge, and the perception of a successful IT department. Having a mindset to consider IS function in the organisation as one of the mainstream business functions instead of just a technology group helps to enhance the relationship between IS and business (Hu and Huang, 2006).

The notion of relationship management that was considered by Hu and Huang (2006) in their model was a reflection of business executives who repeatedly downplayed the value of formal organisational structure but frequently emphasised the critical role of relationships in achieving strategic alignment (Chan, 2001).

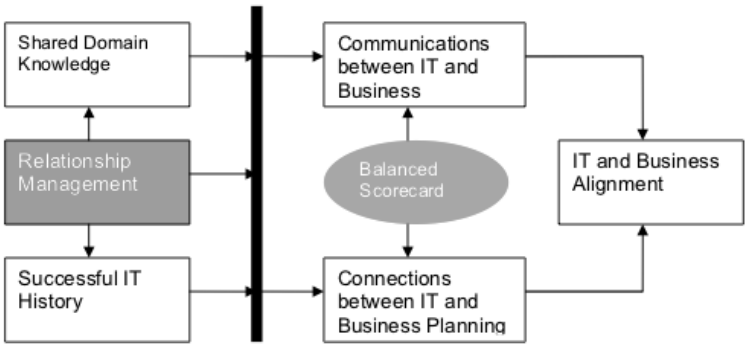


Figure 16 - Hu and Huang Model, adapted from Hu and Huang (2006)

Hu and Huang (2006) also draws attention the longitudinal study conducted by Luftman and Brier (1999) which shows that while a close relationship between IS and non-IST functions was the fourth among the fifteen identified alignment enablers, the lack of a close relationship ranked as the first of the fourteen alignment inhibitors.

8.3.15 Co-evolutionary Alignment Model

Co-evolutionary theory views the organisation as part of a larger socio-cultural and historical system instead of an isolated perspective (Chan and Reich, 2007a) and reflects uncertainty, complexity, munificence, graininess, fitness, and niches (McKelvey, 1997) as well as absorptive capacity, fit with the environment, and value creation mode.

Peppard and Breu (2003) utilised co-evolutionary perspective as a new lens for viewing strategic alignment. The authors developed a co-evolutionary model of strategic alignment between business and IS . The following set of mutually inclusive interacting components were identified including, structural alignment, fitness function, path dependency, absorptive capacity, landscape (rugged vs. smooth), value creation (exploration vs. exploitation), technology (emerging vs. disruptive), competitive dynamics, and strategic alignment.

Peppard and Breu (2003) articulates that taking a co-evolutionary stance allows to "frame the process of mutual adaptation and change between business and IS strategies not just as a matter of alignment but as a dynamic interplay of co-evolving interactions, interrelationships and effects (indicated by the curve in the centre) that is impacted by a complex set of dynamically changing forces (indicated by the triangles)" (p. 747).

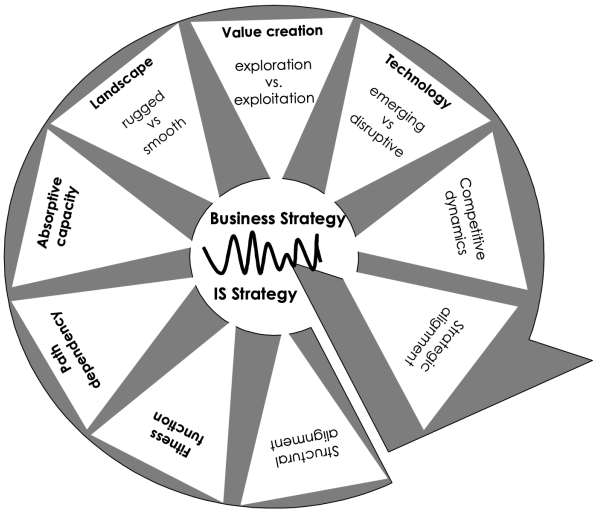


Figure 17 - Co-evolution model for strategic alignment, adapted from Peppard and Breu (2003)

Benbya and McKelvey (2006) suggested that the scholars (Ciborra, 1997; Orlikowski, 1996; Van der Zee and De Jong, 1999) focussed on the dynamic, interactive and mutual adaptation-based approach, are calling for co-evolutionary approach to strategic alignment.

On the similar vein to Peppard and Breu (2003) and building on Ciborra's (1997) 'organismic' view, Benbya and McKelvey (2006) articulates that taking a co-evolutionary stance allows to "frame the process of mutual adaptation and change between Business and IS strategies, Business and IS departments, and IS infrastructure and business users not just as a matter of alignment but as a dynamic interplay of co-evolving interactions, interrelationships, and effects" (p. 287).

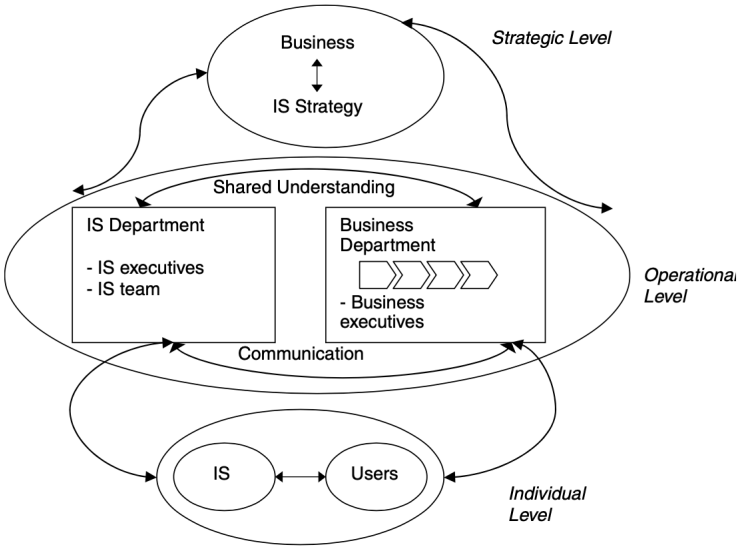


Figure 18 - Co-evolution model for strategic alignment, adapted from Benbya and McKelvey (2006)

The co-evolutionary alignment model has conceptualised strategic alignment as a process of continuous adaptation and change between strategic, operational and individual levels covering the content and context of business and IS strategies, business and IS departments, and IS infrastructure and business users.

Shared vision between the Chief Information Officer (CIO) and Top Management Team (TMT) is critical to creating, and maintaining through co-evolution, IS strategic alignment in the organisation (Preston and Karahanna, 2009b, p. 7). The authors have identified the following visioning mechanisms through which this shared vision is developed (p. 5).

- "Shared Business Language - Communicating in business terms, avoiding jargon and technical terms and framing issues from a business perspective.
- Visioning Network Hierarchy - Using structural position in the organisation to formally interact with the TMT to understand business issues and priorities.
- CIO Educational Leadership - Educating the TMT on IS capabilities and managing expectations.
- CIO-TMT Commonalities - Strengthening and maintaining a bond with the TMT through common interests.
- CIO Strategic Knowledge - Developing business strategy acumen.
- CIO-TMT Relational Capital - Developing and maintaining a trusting relationship with the TMT."

Benbya and McKelvey (2006) argues that organisational effectiveness is a function of IS alignment, and strategic alignment is a function of co-evolutionary dynamics spreading across three levels, individual users, business and IS subcomponents, and top-level business strategy. Benbya et al. (2006) also outline the seven 1st principles of adaptive success drawn from foundational biological and social science theory in the context of IS domain, and considers co-evolution as a function of the 1st principles outlined below (p. 28);

- Adaptive tension - Framing the process of adaptive tension between intersections of overlapping sets of individuals and group perspectives so that adaptive tension motivators shift and evolve as the IS design process proceeds.
- Requisite complexity - Enabling self-organised emergent complexity by the various agents (employees or groups, departments, etc.) so as to develop internal complexity capabilities capable of matching the variation and complexity of both internal organisational, IS, and external environments.
- Change rate - Speeding up the rate of gap reduction between IS effectiveness and changing requirements of users via quickened learning action loops and “real time” action on their feedback as the iterative process continues. .
- Modular design - Using modular architecture so as to allow components to be removed, replaced and reconfigured in ongoing dynamic fashion with less damage to adjacent IS components than current tightly coupled designs allow.
- Positive feedback - Enabling vague initial redesign ideas (insignificant instigation events) to more easily spiral into dramatic new structures by using an iterative design approach that more readily fosters the emergence of new IS architecture.
- Causal intricacy - Framing the process of mutual adaptation not just as a matter of alignment but as a dynamic interplay over time of co-evolving interactions, relationships and effects.
- Coordination rhythm - Taking advantage of the irregular oscillation principle or dynamic oscillation to legitimate not only top-down control versus bottom-up autonomy, but also the irregular influence of IS design experts and co-evolving user initiatives, and the different forces or mechanisms that may be contradictorily involved in the realignment process as the broader environment changes.”

Tanriverdi et al. (2010) considers co-evolution being one of key the forces that dynamically drives strategic alignment and identifies profitable positions for the firm in the dancing, rugged, competitive landscape of Complex Adaptive Business Systems. The authors also define two other forces in play as complementary to co-evolution, namely reconfiguration (agile disassembly of the firm's old nexus of resources, contracts, and transactions and the reassembly of new ones to reposition the firm) and renewal (to gain advantages over rivals in each of the new positions) (p. 830).

8.3.16 Antecedents and Enablers of Strategic Alignment

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 below.

- ***Existence of goals and plans*** theme reflects the agreed plans and objectives among the business and IS functions within the organisation. This theme has been operationalised with the following variables in the literature such as defined, documented, and formal goals and vision of the business and establishment of an IT plan (Lederer and Mendelow, 1989), aligned process of planning (Li et al., 2006), prioritisation of IS (Luftman et al., 1999) and existence of clarified formal business plan (Reich and Benbasat, 1996), availability of business plan for IT manager Business-IT management partnership in prioritising the projects (Teo and Ang, 1999).
- ***Positioning of IS in the organisation*** theme reflects the leadership and sponsorship provided by business and IS management in the organisation to drive value out of their IS investments. This theme has been operationalised with the following variables in the literature such as executive support (Beimborn et al., 2009), CEO encouragement to business managers' presence in IT planning (Lederer and Mendelow, 1989), support of top management and IT leadership (Luftman et al., 1999), support of top management and innovative culture (Sha et al., 2011), organisational culture (Fattah and Arman, 2014), commitment of top manager to strategic use of IT (Teo and Ang, 1999), corporate vision and belief in

strategic role of IS (Brown and Magill, 1994), structure of the IT organisation (Tavakolian, 1989; Ein-Dor and Segev, 1982), aligned goals and objectives (Li et al., 2006), level of IT investment in the organisation (Sabherwal et al., 2019), management commitments (Quaadgras et al., 2014), IT budgeting (Luftman and Derksen, 2012).

- ***Shared knowledge domain*** theme outlines the level of common understanding of business and IS subject matter among the executives, managers and senior staff across the organisation. This theme has been operationalised with the following variables in the literature such as mutual understanding of CEO/CIO (Johnson and Lederer, 2010; Tan and Gallupe, 2006), common and shared understanding (Li et al., 2006; Preston and Karahanna, 2009a), shared knowledge (Chan et al., 2006; Trienekens et al. 2014; Cragg et al., 2002), communication and participation between CIO and TMT (Sabherwal and Kirs, 1994), CEO/CIO mutual understanding (Benlian and Haffke, 2016), understanding of business by IT (Luftman et al., 1999), understanding of current objectives Shared vision for IT (Reich and Benbasat, 1996), domain knowledge sharing (Sha et al., 2011), top manager knowledge of IT, IT manager's knowledge of business and awareness of IT manager of business goals and objectives (Teo and Ang, 1999), understanding business situations (Tai et al., 2019), shared competence between business and IT, (Zhou et al., 2018).
- ***Performance of IS in the organisation*** theme 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. This theme has been operationalised with the following variables in the literature such as satisfaction with technology management (Brown and Magill, 1994), credibility of IT based on previous success (Chan et al., 2006; Cataldo et al., 2012), IT's capability in meeting its commitment (Luftman et al., 1999), efficiency and reliability of IT department, ability of IT department in keeping up with technology advancement and providing innovative IT solutions, and responsiveness of IT department (Teo and Ang, 1999), successful IT history (Yayla and Hu, 2009; Ismail and King, 2014), IT maturity (Ismail and King, 2014), IT management and control sophistication (Huang, 2015), IT resource

management and Performance measurement (Sabegh and Motlagh, 2012), IT governance (Wu et al., 2015), IT agility (Tallon and Pinsonneault, 2011), IT architecture and governance (Tiwana and Konsynski, 2010), managerial capability of IT infrastructure (Fink and Neumann, 2009), IT Service Management capability and IS effectiveness (Winkler and Wulf, 2019), acquiring new technological skills and flexible technology assets (Tai et al., 2019), IT service quality (Wagner et al., 2014), interaction between IS staff and IS users (Benlian, 2013), IT flexibility and IT agility (Tallon and Pinsonneault, 2011).

- ***Stakeholder engagement and communications*** theme 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. This theme has been operationalised with the following variables in the literature such as relationship between IT and business executives and engaging IT managers with business (Campbell, 2005), perceived communications on business-IT Strategies to employees and perceived knowledge on business-IT strategies (Chong et al., 2011), IT manager's participation in business planning, business managers' participation in IT planning (Kearns and Sabherwal, 2007; Sabherwal and Kirs, 1994), IT manager presence in business planning (Lederer and Mendelow, 1989), collaborative relationship (Li et al., 2006), involving IT in strategy development, and close relationship between IT and business (Luftman et al., 1999), communication between business and IT executives and connections between business and IT planning (Reich and Benbasat, 2000; Hussin et al., 2002), frequent relationship between IT and its users (Teo and Ang, 1999), interacting with users (Tai et al., 2019), open and trust-worthy communication, high reciprocal commitment and support, close cooperation and strong relationships between business and IT executives (Alaceva and Rusu, 2015), CIO and CEO engagement (Karahanna and Preston, 2013), top management support and IT representation on the executive board (Schlosser et al., 2015), IS planning maturity (Shimada et al., 2019), employee communication (Wong et al., 2012).

8.4 Appendix 4 | Strategic Alignment Measurement and Maturity Models

In this section, a set of key studies that aimed to provide a measurement or outline a maturity level for the strategic alignment between business and IS strategies, will be summarised.

8.4.1 STROBE

STROBE (Strategic Orientation of Business Enterprises) is developed by Venkatraman (1989) as an instrument in order to assess the strategic orientation of the business via over 60 questions covering six dimensions. The instrument was defined by addressing four theoretical questions about scope, hierarchical level, domain, and intentions versus realisations, and then conceptualised in terms of six dimensions (i.e. aggressiveness, analysis, defensiveness, futurity, proactiveness and riskiness) (Venkatraman, 1989).

STROBE has been used by many authors (Ma et al., 1998; Sabherwal and Chan, 2001; Bergeron et al., 2001; Byrd et al., 2006; Chan et al., 1997; Croteau and Bergeron, 2001) to understand the business orientation and IS strategic alignment. Bergeron et al. (2001) operationalised business strategy on the STROBE typology; and utilised four constructs (strategic use of IS , IS planning and control, IS environmental scanning, and IS acquisition and implementation) for IS strategy in order to evaluate alignment and its implications for performance. The study reinforced the typology's contentions that different conceptualisations, verbalisations, and methods of analysis of fit would lead to different results.

8.4.2 STROIS

After the introduction of STROBE, a new study to develop a new instrument was conducted by Chan and Huff (1993) with the objective of identifying a valid and reliable

way of quantifying how IS is actually used by organisations to provide support for business operations. The authors introduced the conceptual model of IS strategic orientation based on the STROBE instrument (Venkatraman, 1989) and alternative calculations for IS strategic alignment. Chan and Huff (1993) provided empirical evidence that the IS strategic alignment is consistently related to perceived IS effectiveness and that alignment is positively related to innovation and lesser on financial performance and market growth.

STROIS (Strategic Orientation of Information Systems) outlined over 50 questions addressing eight dimensions to measure the areas and intends of use for IS deployments within the organisations. The measurement model employed higher-order factors and categorised organisations into four groupings based on their use of IS to support action, armour (defensive orientation), analysis and risk aversion, and anticipation for future (Chan and Huff, 1993). The dimensions of STROIS included aggressiveness, analysis, internal and external defensiveness, futurity (planning for future), proactiveness, risk aversion and innovativeness.

8.4.3 STROEPIS

Chan et al. (1997) has developed a parallel instrument to STROIS (Strategic Orientation of Information Systems) and introduced STROEPIS (Strategic Orientation of Existing Portfolio of Information Systems) in order to measure the realised IS strategy, and for each STROBE item a parallel STROEPIS measure was created. The authors measured business strategic orientation, IS strategic orientation, and IS strategic alignment, and articulated three core IS strategic orientation dimensions (IST support for Anticipation, IS support for Analysis, and IS support for Action) for perceived IS effectiveness and business performance.

Other key conclusions also included that business strategic orientation, IS strategic orientation, and IS strategic alignment have positive impact on business performance, alignment is a significant predictor of IS effectiveness and business performance (Chan et al., 1997).

When STROBE typology for business strategy and STROEPIS typology for IS strategy are operationalised, it was concluded that the importance of alignment varies by business strategy and industry (Chan et al., 2006) and strategic alignment is better at explaining IS success (Cataldo et al., 2012).

8.4.4 Strategic Alignment Maturity Model

Strategic Alignment Maturity Model has been developed and extended in three different phases as outlined below.

A multi-year quantitative study (1992 to 1997) of strategic alignment (Luftman et al., 1999) was conducted with over 500 firms representing 15 industries who attended classes addressing alignment at IBM's Advanced Business Institute. Questionnaire based survey was developed based on an early version of SAM (Henderson, Thomas and Venkatraman, 1992), altered for cross industry audience and revised with further in-depth descriptions of the model components based on an earlier study by one of the authors (Luftman, 1993). This included twelve alignment components based on SAM (Henderson and Venkatraman, 1993), as a composition of Business Scope, Distinctive Competencies, Business Governance, Infrastructure and Processes, Administrative Structure, Organisation Infrastructure and Processes: Skills, Technology Scope, Systemic Competencies, IT Governance, IT Infrastructure and Processes, IT Infrastructure and Processes Architecture, IT Infrastructure and Processes Skills. The study provided a list of six enablers and six inhibitors for strategic alignment reflecting the importance of relationships between the business and IS functional areas, mutual cooperation and participation in strategy development, continuous executive support and effective communications.

Following on from the previous study, Luftman (2000) developed the early version of the Strategic Alignment Maturity Model (SAMM) which was based on SAM (Henderson and Venkatraman, 1993) combined with the enablers and inhibitors of alignment (Luftman et al., 1999). SAMM outlines a set of maturity criteria (i.e. Communications, Competency/Value Measurement, Governance, Partnership, Scope and Architecture, and Skills) that exists between the components of SAM, to evaluate where an organisation is and where it requires improvement in order to attain and sustain strategic alignment

between business and IS (Luftman, 2000). The idea behind the SAMM was to enable organisations to assess these thirty-eight sub-attributes and identify the maturity level of alignment (Luftman, 2000) within an organisation based on an incremental maturity scale (initial/ad hoc process, committed process, established focused process, improved/managed process and optimised process), with the objective of minimising the alignment gap and making sure that the business and IS components of the organisation are able to work well together (Luftman, 2003).

The third and the final phase for the evolution of SAMM (Luftman, 2003) included a total of thirty-eight attributes under the six criteria.

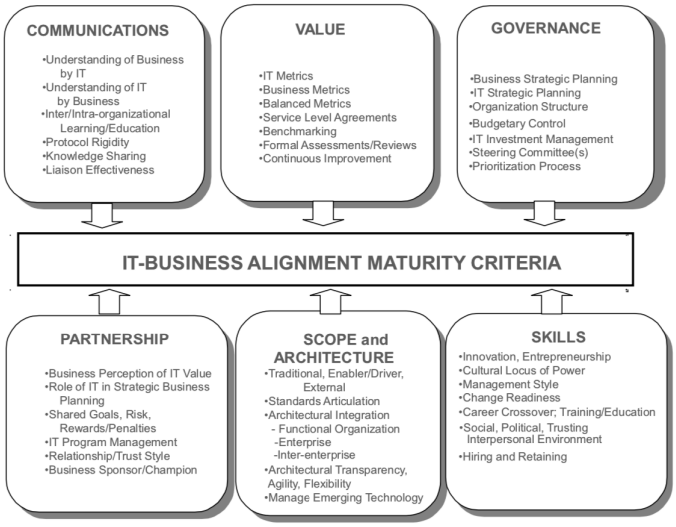


Figure 19 - Strategic Alignment Maturity Model, adapted from Luftman (2003)

As the lead author on the above studies, Jerry Luftman, has maintained a repository of surveys completed for SAMM over the years. He reported 231 of the "Global Fortune 1000" companies (Luftman et al., 2008), and 392 in 2015 (Luftman, 2015). Luftman et al. (2017) conducted a new study on this repository that includes 3029 IT and non-IT executives and consultants from 395 "Global Fortune 1000" organisations representing data across 16 different industries that were collected over a 13-year period. The study confirms that the level of strategic alignment, operationalised based on these six alignment dimensions, has a moderate positive impact on company performance. Luftman et al. (2017) confirms that communication activities (e.g., understanding of business by IT, Understand of IT by business), value analytics activities (e.g., IT and business metrics), IT governance activities (e.g., strategic planning,

reporting, budgeting), partnership activities (e.g., maintaining working relationship between business and IT organisations), IT scoping activities (e.g., promoting the creation of a flexible IT infrastructure, its evaluation and application of emerging technologies, driving business process change, and delivering valuable customised solutions), and positioning and balancing business and IT skills all form a part of the strategic alignment between business and IT.

8.5 Appendix 5 | Theoretical Perspectives in Strategic Alignment

Theoretical perspectives have supported the evolution of thinking and understanding in strategic alignment. This section provided further detailed information on the theoretical perspectives on strategic alignment.

8.5.1 Contingency Perspective

The underlying premise of contingency perspective is that context and structure must somehow fit together if the organisation is to perform well (Drazin and Van de Ven, 1985). The contingency perspective oriented studies aimed identify congruent patterns of strategy and structure, expressed by coupling strategic and structural dimensions (Bergeron et al., 2004). Dubin's (1976) argument on every theory is being a contingency theory reflects the inherent view of congruence in contingency perspective. Donaldson (2001) articulates "law of interaction" term that Dubin (1976) used in his definition, as the organisational performance depends on the fit between organisation context, structure and process. The essence of the contingency perspective is that organisational effectiveness results from fitting characteristics of the organisation (including its internal and external structure, culture, organisational size, strategy, environment), to contingencies that reflect the situation of the organisation (Donaldson, 2001).

Ginsberg and Venkatraman (1985) suggests that there is no universal set of strategic choices which is optimal for all organisations and circumstances. The reason for contingency perspective to get recognition among the scholars is the fact that organisations, who achieve a fit between contingencies and their organisational characteristics, achieve better performance. Donaldson (2001) notes that organisations are shaped by the contingencies, because misalignment between contingencies and organisational characteristics reduces performance. Therefore, any consideration for the definition of optimal strategy is subject to a certain set of contingencies such as the environment, technology, knowledge, culture, organisational structure, organisational size.

Due to the inherent perspective of congruence within the contingency theory, there are several studies in the IS strategic alignment literature employed this perspective, in

particular, turbulence in the environment (Chen et al. 2010; Huang 2009), different strategic choices (Sabherwal and Chan, 2001) and organisation's structure (i.e. centralised, decentralised, hybrid) (Brown and Magill 1994).

The academic studies focusing on contingency perspective to explain strategic alignment are not seen as providing rich, comprehensive theoretical explanations of the mechanisms and processes (Chan and Reich, 2007a).

8.5.2 Information Processing View

An organisation is an "imperfect information processing system because of its inevitably incomplete information and limited information processing capability" (Li et al., 2019, p. 6; Galbraith, 1974). Information Processing View argues that when there is an alignment between the information-processing requirements of strategy and information-processing capacities of an organisation, organisation's performance would be higher (Tushman and Nadler, 1978). The authors also reflects on the dynamic and continuous nature of alignment inherited in the Information Processing View by stating that organisation's information processing requirements are likely to change over time, the task of organisational structuring and design will never be fully accomplished (p. 622).

Information Processing View suggests that organisational structures required to deal with information processing requirements are derived from an organisation's environment and tasks. The nature of the Information processing view has been developed as a framework to better understand the fit between strategy and structure in the context of organisational decision-making and uncertainty (Bergeron et al., 2004).

The alignment between information requirements and information processing capacity has been examined by several researchers. Jarvanpaa and Ives (1993) examined the fit between IS and global business decision-making structures utilising organisational information processing theory. Premkumar et al. (2005) found empirical evidence that the fit between information processing requirements and capability of an organisation increases the organisational performance. Nelson et al. (2005) suggested that the antecedents of IS usage and value is linked to the quality in the design of IS in

particular, information quality (completeness, accuracy, format, and currency) and system quality (reliability, flexibility, integration, accessibility, and response time), and these significantly influence user satisfaction (information and system satisfaction). Kearns and Lederer (2004) examined the impact of IS and business planning on organisational performance and found strong evidence that effective alignment precedes the strategic use of IS-based resources for competitive advantage.

8.5.3 Market Based View

Economists view within the strategy domain emerged with Porter (1980) including his reflections on Professor Joe Bain's work from University of California in 1959, focused on industry structure, competition and external factors determining firm performance (Bowman and Ambrosini, 2000). Market positioning view considers that competition goes beyond established industry rivals and include customers, suppliers, potential entrants, and substitute products. Their interests led the strategy discourse towards organisation economics and the structural characteristics of industries including focus on barriers to entry, price structures, economies of scale, vertical integration (Harrigan, 1985), investment choices, growth and industry patterns, game theory (Saloner, 1991; Dixit and Nalebuff, 1991) and competitive interactions (Henderson and Mitchell, 1997).

The market-based view of strategy was not interested in the resources that reside within the boundaries of the organisation. Within the strategic alignment literature, this view has been dominant in Rockart and Scott Morton (1984), Baets (1992), Henderson and Venkatraman (1993), Maes et al. (2000), Bergeron et al. (2004).

8.5.4 Resource Based View of the Firm

As a challenge to market-based view, group of researchers (Barney, 1991; Prahalad and Hamel 2003; Wernerfelt 1984), including their reflections on Penrose from 1959, focused on internal factors, and claimed that firm-level resources and capabilities are the primary determinants of organisations' performance (Sminia, 2009). This challenge initially led to the development of resource-based view (RBV) that considers

the resources that are simultaneously valuable, rare, imperfectly imitable and non-substitutable (VRIN) are a source of competitive advantage (Barney, 1991). RBV has emerged as one of the dominant theories in the strategic-management literature for explaining why some firms are more profitable than others (Seddon, 2015).

The resource-based view motivated IS scholars to focus on the antecedents and inhibitors of strategic alignment including the ability to develop stakeholder engagement and communications (Campbell, 2005; Chong et al., 2011; Kearns and Sabherwal, 2007; Sabherwal and Kirs, 1994; Luftman et al., 1999), shared knowledge domain (Johnson and Lederer, 2010; Tan and Gallupe, 2006; Preston and Karahanna, 2009a; Chan et al., 2006; Reich and Benbasat, 1996) to achieve strategic alignment.

RBV also considers financial resources of the organisation that can support IS investments to build alignment capabilities via VRIN resources (Chen et al., 2010; Celuch et al., 2007). However, RBV perspective articulates that IS investments on their own are not enough to provide a competitive advantage (Carr, 2003), and organisations can leverage their financial resources and their existing VRIN resources to create, improve, maintain and sustain their IS strategic alignment (Peppard and Ward, 2004; Kearns and Lederer, 2003).

Chan and Reich (2007a) considers resource-based view of the firm as one of the well-established theories such as institutional theory and suggest scholars to employ them as foundations upon which to build robust theoretical explanations for strategic alignment research.

8.5.5 Dynamic Capabilities View

Further research helped to develop dynamic capabilities view (DCV) as organisations have an ability to integrate, build, and reconfigure internal and external competences combined with technological, organisational, and managerial processes to generate economic rents in rapidly changing environments (Teece et al., 1997). The DCV view focuses on the key role of strategic leadership in sensing, seizing, adapting, integrating, reconfiguring and transforming organisational skills and resources to match changing environments (Teece, 2014; Steininger et al., 2022). Dynamic capabilities are

hard to replicate because they are built on the idiosyncratic organisational characteristics, ways of working and the culture of the organisation (Teece, 2014).

Baker et al. (2011) articulates the static view of RBV and considers DCV as a new emphasis on the importance of organisational capabilities rather than organisations' VRIN resources only, as resources can be acquired relatively quickly combined with financial resources, however, capabilities must be built deliberately over time. Capabilities are defined as competencies that are built by combining resources (Baker et al., 2011; Grant, 1991).

Researchers have continuously noted that achieving strategic alignment is a capability built upon a specific set of IS competencies (Peppard and Ward, 2004; Agarwal and Sambamurthy, 2002; Hirschheim and Sabherwal, 2001), and DCV is increasingly being used in the study of strategic alignment (Baker and Singh, 2019). Dynamic capabilities enable organisations to mix their strategies and resources to compete. Dynamic strategic alignment and maintaining a balanced approach to investments in the use of IS for exploration, and exploitation is considered as a key competency (Galliers, 2006; Merali et al., 2012).

Roberts et al. (2012) defines absorptive capacity is an organisation's "ability to identify, assimilate, transform, and apply valuable external knowledge" (p. 625). Baker et al. (2011) reminds that absorptive capacity has been described as a dynamic capability embedded within the organisation, and centred on knowledge acquisition, assimilation, transformation and exploitation (Zahra and George, 2002) to maintain and sustain competitive advantage.

Roberts and Grover (2012) investigated how IS improves agility and competitive advantage. They demonstrated that knowledge-creating and process-enhancing power of IS facilitates organisation's ability to sense and respond to customer-based market opportunities. Chen et al. (2014) found that hostility and complexity are two significant moderators in the context of the environment that the organisation is operating in and suggested that IS performs better in less hostile environments. Nan and Tanriverdi (2017) suggests that hyper turbulence can result from IS-based firm strategic actions and interactions, while an organisation's adaptive capabilities are the main venue for IS to afford competitive advantage in hyper turbulence.

8.5.6 Emergent View

Mintzberg and Waters (1985) suggested that 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. Aligned with the RBV and DCV, Ciborra (1994) argues that imperfect imitability stems from unique solutions, idiosyncratic mix of skills, users' know-how supported by organisational culture and teamwork. However, he points out the importance of intangibles, simultaneous interaction between business and IS via business renewal, learning and support, and capability of integrating unique ideas with practical solutions in an organisational context over the structured analysis of internal assets, rigid systems development approach and market analysis.

Ciborra's (1997) contribution to strategic alignment literature is unique in the sense that he brought the emergent strategy thinking that drives consistent patterns in the streams of business decisions (Mintzberg, 1979) but, he has put the touch of care, hospitality and cultivation concepts at the hearth of the empirical models by bringing the "worldly existence of people at work and their small and big "dramas"" (p. 78). Ciborra (1997) articulates that strategic alignment cannot occur with a command and control approach and requires care, hospitality and cultivation applied as bottom-up approach rather than the top-down approach that is generally described with geometrical shapes and arrows.

> *"At the extreme, technology could be regarded as an actor in itself. Alignment as strategic alliance between humans and nonhumans (Latour, 1993) may be a better expression to portray the quest of a common, interplay space between them. Armed with such broader understanding, strategies of care, hospitality and cultivation would then make much more practical sense for management, than a sheer, commando-like ''harnessing-IT'' strategy" (p. 69).*

Ciborra (1997) considers strategic alignment as a bridge between business strategy and IS with an attempt to connect these two extremely unstable variables. However, he argues that the attempt is bound to fail, because strategy ends up in "tinkering" or "bricolage" (Ciborra, 1992) and the IS tends to "drift". In his words, "There

is no observable alignment, nor measurable fit, because strategy now is de facto bricolage, while the technology is mostly "out of control"" (Ciborra, 1997, p. 69). Ciborra introduced three main terms to the strategic alignment literature including;

- Care – is a combination of intentional perception of IS for practical problem solving, learning and understanding embedded into our tacit knowledge.
- Hospitality – a concept that articulates the importance of extra workload in changing existing work practices and re-arranging power balances in an organisational setting when a new IS is introduced to ensure the acceptability of the change in order to avoid hostility.
- Cultivation - a notion to surface the intricacies of the relationship between strategy and technology in the context of the strategic alignment. He considers cultivation as a set of frequent misalignment and misfit whereby the technology being accumulated is greater, or different in its potential, than current internal and external needs.

Silva et al. (2007) found that organisational members conceive IS alignment very differently than proposed academic models. The authors suggest that the use of emergent view provided perspectives that authors were able to identify the reasons organisational members attributed to achieving or not achieving alignment.

8.5.7 Ambidexterity Perspective

The extant literature on strategic alignment has been criticised as atheoretic (Chan and Reich, 2007a) and static in nature and thus limited in explaining the dynamics of IT-business alignment (Lee at al., 2015). Majority of the empirical research on strategic alignment up to mid 1990s drew upon contingency theory. Starting from the end of 1990s, empirical research on strategic alignment adopted the RBV, and from early 2000s, the DCV has taken the central stage on the empirical research agenda.

According to Tarafdar and Gordon (2007), ambidexterity is the ability to handle “contradictions”, achieve and balance between strategic vision and operational excellence while demonstrating technical and organisational flexibility to vary the balance between them in response to external conditions and internal needs.

Ambidexterity is an extension of the DCV view and founded on the alignment of organisational assets, skills, capability and competencies to engage in exploration and exploitation pivoted on organisation's vision and strategic intent, and supported by agility and flexibility of senior management's mindset. O'Reilly and Tushman (2008) suggests that achieving ambidexterity is a challenging tasks if there is no clear strategic intent, an over-arching vision and values, an aligned senior team, an appropriate organisational architecture with targeted integration, and the ability of the senior team to manage the inevitable trade-offs and conflicts. In their view, ambidexterity is all about exploitation which drives efficiency, productivity, control, certainty, and exploration, which requires search, discovery, innovation and embracing change. IS ambidexterity is defined as "the ability of a firm to manage its attention to both the current and emerging technologies, understand their potential value for business operations, select promising technologies, and implement an efficient means of leveraging those technologies" (Lee at al., 2015, p. 405).

IS capabilities enhance organisational agility through an enabling role with moderating effects of agility on firm performance through facilitating roles (Chakravarthy et al., 2013). Lu and Ramamurty (2011) examined the positive impact of IS capability to enhance and impede operational adjustment agility of the organisation. Tallon and Pinsonneault (2011) showed that strategic alignment between business and IS is a key source of competitive advantages because of its positive link to organisational agility. The authors also examined the effects of strategic IT alignment on firm performance, and found a positive relationship between the two, they also observed that the effects are stronger in highly volatile environments. Oh and Pinsonneault (2007) confirmed a positive relationship between strategic alignment and agility, as they observed that aligned IS infrastructures and processes provide an integrated platform for business operations leading to success in competing driven by the ability for quickly seizing opportunities. There is also strong evidence in the literature that not only the organisations with defined IS strategies perform better than those without defined IS strategies, and also those who attempt to be ambidextrous are associated with the most superior performance (Leidner and Preston, 2011).

Lee et al.(2015) empirically examined operational ambidexterity between IS ambidexterity and organisational agility and established an understanding on how

organisation's lower-order functional capabilities are integrated to form higher-order dynamic capabilities. Their findings confirm the importance of the ambidextrous management of IS resources and practices to achieve organisational agility. Tai et al. (2019) empirically studied the antecedents of IS ambidexterity on manufacturing organisations, and found that IS functions with better understanding of the business situations, better at acquiring new technological skills, interacting with users, and flexible technology assets exhibit greater IS ambidexterity, allowing them to sustain the operational support aspect of IS alignment.

8.5.8 Architectural Perspective

One of the common perspectives among the scholars is that Enterprise Architecture (EA) IS generally considered an important instrument to contribute to strategic alignment (Alaeddini and Salekfard, 2013). Allen and Boynton (1991) argues that efficiency and flexibility of IS architecture of the organisation is critical to reap competitive advantage, and highlights the importance of building IS architectures that provide the foundation for rapid response to changing market conditions through hosts of relatively short-lived products and services. Kang et al. (2010) proposes EA frameworks to be composed of ontologies in three levels in order to explain all enterprise components systematically, including business terms are in the first level, EA components are in the second level, and ontologies of relationships among EA components are in the top level.

The EA framework[3] is developed as an iterative process, and consists of drawings and interrelated descriptions of data entities, applications, integrations, infrastructures

[3] The Open Group Architecture Framework (TOGAF) is one of the widely accepted EA frameworks with the objective of developing comprehensive EA descriptions, governed by the Open Group (https://www.opengroup.org/togaf). Zachman (1996) also developed the information systems architecture framework into the Zachman Framework for Enterprise Architecture.

and networks of the organisation's technology landscape (Castellanos and Correal, 2013). Bhattacharya (2018) augmented the Strategic Alignment Model (Henderson and Venkatraman, 1993) with the constructs of an Enterprise Architecture framework (aligned with TOGAF) to present a more comprehensive technique of modelling strategic alignment between business and IS .

EA does not only help to recognise the technical capacity of architecture, but also provides the ability to fully describe the business, therefore enables the integration and alignment of business strategy and IS (Gregor et al., 2007) and also increases the communications and understanding between business and IS professionals within the organisation.

The business processes and underlying technology landscape (applications, integrations and infrastructure) digitalise and automate an organisation's core capabilities, and these are the foundations for executing and governing its business strategies, and EA is the approach to achieve this foundation (Ross, 2003). EA strategically positions to leverage organisation's current IS capabilities and to provide a dynamic roadmap to the future (Bradley et al., 2011). Boh and Yellin (2006) provided empirical evidence to confirm the benefits of EA and a variety of governance structures to help organisations effectively manage their IS resources. Valorinta (2011) suggested that the alignment of IS and business requires effective management of both internal and external boundaries, and considers to utilise enterprise architecture serve as a boundary object and be associated with improved IS alignment.

Fonstad and Subramani (2009) studied a multi business unit organisation and observed the importance of local and enterprise wide alignment across objectives, such as deriving cross- unit synergies from integrating and standardising technologies, architectures, business processes and data. The authors concluded that the strengthened enterprise alignment provided the foundation for IS and business leaders to collectively pursue more ambitious synergies.

Modularity is a general design principle that intentionally increases independence among the subsystems of a complex system (Sanchez and Mahoney, 1996). Any complex organisation or technological system is composed of distinct interacting subsystems that are to some extent interdependent and independent (Simon, 1981). EA modularity is

defined as the degree of decomposition of an organisation's IT portfolio into loosely coupled (i.e. designed in such a way that internal changes in one application do not affect the behaviour of others) subsystems that communicate through standardised interfaces designed such that internal changes in one application do not affect the behaviour of others (Tiwana and Konsynski, 2010). With reference to modular systems theory, the authors argued that EA modularity enhances strategic alignment by increasing IS agility and decentralisation of IS governance strengthens this relationship. The authors suggested that IS architecture complements IS governance structure, and this supports strategic 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.

8.6 Appendix 6 | Technology and Human Perspectives in Strategic Alignment

This appendix section provides additional literature review specifically on the technology and human related theoretical perspectives outlined in the strategic alignment literature.

Ciborra (1992) suggested that strategic alignment is a journey (not a state) that is not always predictable, rational, or tightly planned. Ciborra's contribution to strategic alignment literature is unique in the sense that he brought the emergent strategy thinking that drives consistent patterns in the streams of business decisions (Mintzberg, 1979), but has put the touch of care, hospitality and cultivation concepts at the hearth of the strategic alignment discourse by bringing the "worldly existence of people at work and their small and big "dramas"" (Ciborra, 1997, p. 78). The author articulates that strategic alignment cannot occur with a command and control approach and requires "care", "hospitality" and "cultivation" applied as bottom-up approach rather than the top-down approach that is generally described with geometrical shapes and arrows. Ciborra (1997) defines "Care" as (pp. 73-74);

- intentional perception - "perception idealises "things" by severing them from the context, the world where models, objects, ideas are usually immersed, so that it deals eventually with "unworlded" systems or objects."
- circumspection – "the form of concern that consists in practical problem solving and learning. It is the domain of "situated" implementation and use… we get our hands dirty to manage the process. The neat world of the scientific models is not at the center of attention anymore, rather it is the match to be achieved in vivo between the new systems and the unfolding work situation"
- understanding – "is the domain of "worlded" objects that naturally mingle with (are) the world. Understanding a system or a tool means becoming so intimately familiar with it, so that it disappears from our alert attention, and becomes taken for granted, that is appropriated into the routines of our daily absorbed coping… Or, the systems are so "aligned" with the execution of our daily tasks that they disappear and become part of the world. So, paradoxically, the better we "understand" alignment, the less we will be able

to represent it in our daily activities (it becomes embedded into our tacit knowledge)"

According to Ciborra (1997), "hospitality" is an important concept, as proposing and implementing new IS into an organisation, is not just a matter of carrying rationally planned changes into effect, but it is about the extra workload in changing existing work practices and re-arrange power balances.

> *"Acceptance has to face ambiguity: coping becomes hospitality. On its turn, hospitality is an unstable way of coping with the stranger: it can suddenly turn into hostility" (Ciborra, 1997, p. 74).*

Ciborra (1997) considers "cultivation" as a notion to surface the intricacies of the relationship between strategy and technology in the context of the strategic alignment. He considers cultivation as a set of frequent misalignment and misfit whereby the technology being accumulated is greater, or different in its potential, than current internal and external needs. He adds "...ensuing paradoxical prescription for the firm is to overextend: cultivation is about destabilising current strategy and "creating imbalances" with the current level of technology" (p. 75).

Considering the concepts of care and hospitality in particular, what Ciborra (1997) brought into the strategic alignment literature was to re-introduce the kind of relationship that has already been identified more than 20 years before of his article in the IST literature focusing on the relationship between technology and humans.

In 1970s, organisations focused on the total cost of ownership issue of new IS, specifically the evolving nature of the business requirements, rigid technical capabilities, misaligned specifications, and increasing maintenance costs (Somogyi and Galliers, 1987). IT function's role in organisations stayed same as making information available by supporting end-user computing technology, providing information and advice for users, looking after databases and production systems in the background until mid 1980s when IT function got out of the mainframe room and entered into the boardroom. The first instances of Social Cognitive Theory (SCT) in IS research occurred when computers started to appear in the workplaces with the advent of personal computing wave in order to capture the social dimension of individual behaviour in the context of computer training and use (Carillo, 2010). The roots of SCT can be traced back to the theory of

reasoned action (TRA), which is one of the most fundamental and influential theories used to model prediction of behaviour and its intentions (Dwivedi et al., 2017).

There is evolving interest and research focusing on the IS adoption from the initial phase of IS use to post-adoption including IS use continuance and habit formation in IS use (Bagayogo et al., 2014). Dwivedi et al., (2017) emphasises the breadth and depth of IS research focusing on how and why individuals adopt technology including individual acceptance of technology by using intention or usage, satisfaction or benefits to measure the success of an IS at enterprise level and also at individual level to measure task–technology fit. The main driver behind the evolving literature focusing on how to elicit value-added IS adaption (initial use and post-adoption of IS) behaviours is driven by the under-utilisation of technology and diminishing expected benefits from IS investments (Tams et al., 2018).

Lowry et al. (2015) developed a model for explaining and predicting how a range of motives and expectations influences user satisfaction and continuance intentions for multiple types of IS that have been designed with various intents. Their model explains the roles of intrinsic and extrinsic motivations, how the fulfilment of intrinsic and extrinsic motivations affects systems-use outcome variables differently through met and unmet expectations, and accounts for the effects of key design constructs.

Consumerisation of information technology in our daily lives and importance of experience, that has started to emerge since the millennium, has an impact on how we conceptualise technology and its use in an organisational setting. IS use processes have been recognised as multilevel, interactive, and dynamic phenomena that can be observed through human actors, IS features, user-system interactions, inter personal interactions (Nan, 2011). SCT captured the social dimension of individual behaviour in the context of computer training and use (Carillo, 2010). Socio-technical approaches provide the view that IST is embedded within the organisation and need to incorporate features of the information system, user, and organisational environments.

The use of social cognitive theory in IS research providing a complementary view to more techno-centric approaches further progressed by Technology Acceptance Model (TAM) (Davis, 1989), Technology Acceptance Model II – TAM2 (Venkatesh and Davis, 2000) and Diffusion of Innovations (DOI) (Rogers, 1995). These theories view behaviour

as a set of beliefs about technology, and a set of affective responses (typically measured in terms of attitude towards using or promoting) to the behaviour (Compeau et al., 1999). Ayyagari et al. (2011) investigated the role of technology characteristics and found out that IS can induce stress if there are misfits between the individuals' abilities and supplies, and environment's demands and values. While TAM and DOI focus solely on beliefs about the technology, SCT integrate the notion of perceived outcomes when forecasting behaviour (Carillo, 2010). Most of these theories posit that the use of a certain technology is directly influenced by the perception that it will allow the individual and/or organisation to achieve positive outcomes.

Some of the key theories that have aimed to explain the technology and human relationship are briefly explained in the following sections including;

- Technology Acceptance Models,
- Diffusion of Innovations,
- Unified Theory of Acceptance and Use of Technology, and
- Technology Organisation Environment Framework.

8.6.1 Technology Acceptance Models

Technology Acceptance Model is an adaptation of the theory of reasoned action (TRA) for modelling users' acceptance of IS. TAM was developed by Davis (1989) with the objective to theorise the determinants of computer acceptance across a broad range of IS solutions within the organisational context based on the following two key parameters; (Davis, 1989)

- Perceived usefulness - defined as the prospective user's subjective probability that using a particular information system will enhance the job performance
- Perceived ease of use - defined as the level to which the prospective user expects using the target system to be free of effort

Nearly 10 years after its introduction by Davis (1989), TAM model is extended by Venkatesh and Davis (2000), as known as TAM2, in order to emphasise the influence of

social influence processes (subjective norm[4], voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use).

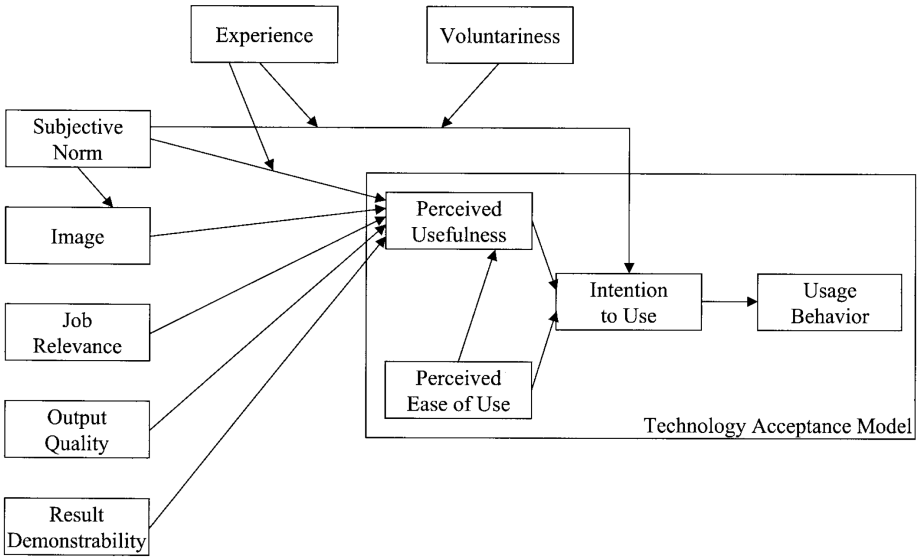


Figure 20 - Technology Acceptance Models - TAM and TAM2, adapted from Venkatesh and Davis (2000)

The major difference between TAM and TAM2 was related to the findings of the study (Venkatesh and Davis, 2000) that subjective norm exerts a significant direct influence on usage intentions over and above perceived usefulness and perceived ease of use for mandatory (but not voluntary) systems (Dwivedi et al., 2017).

According to Straub and Burton-Jones (2007), TAM has served the field reasonably well as it has given researchers a theoretical model that speaks to the unique nature of IST, and a baseline for developing more sophisticated conceptualisations of what systems usage means in specific research contexts.

[4] Subjective norm is described as the person's perception of his planned behaviour in the eyes of the others who are important to that person (Venkatesh and Davis, 2000).

8.6.2 Diffusion of Innovations

Rogers' (1995) interest in the diffusion process with a multi-disciplinary perspective supported the development of one of the mostly known theories in the literature. In his view, diffusion process is all about the communication of innovation to the members of the organisation or society by using certain channels. DOI theory is one of the most popular models used for IS research to describe users' adoption of new technologies (Dwivedi et al., 2017).

The key determinants of Diffusion of Innovations theory are relative advantages (benefits), complexity (level of difficulty), trialability (time to test), observability (ability to see as one uses it) and compatibility (similarity with what one uses) (Rogers, 1983).

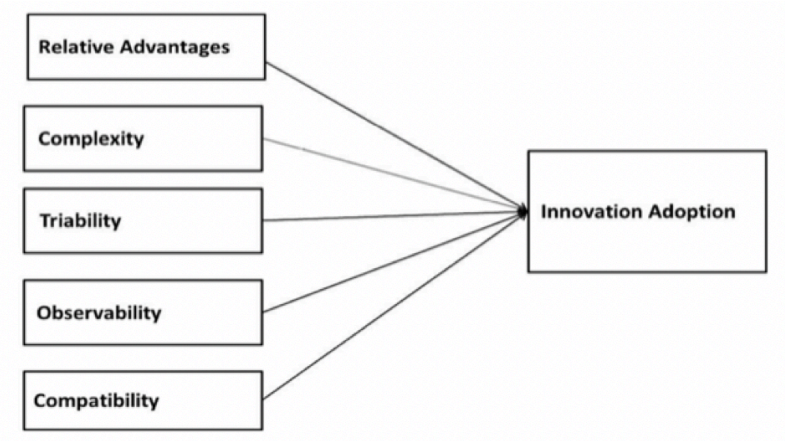


Figure 21 - Diffusion of Innovations model, adapted from Rogers (1995)

Building on Rogers (1983) initial model, Moore and Benbasat (1991) developed the innovation diffusion theory (IDT) and extended the variables to include Ease of Use, Image and Voluntariness. Dwevedi et al. (2017) considers that Moore and Benbasat's (1991) study enriches the DOI theory to better assess users' insights on adopting IT innovations.

8.6.3 Unified Theory of Acceptance and Use of Technology

Unified theory of acceptance and use of technology (UTAUT) was developed by Venkatesh et al. (2003) focusing on four key parameters (including performance expectancy, effort expectancy, social influence, and facilitating conditions) of intention

and usage linked with other moderating parameters such as age, gender, experience, and voluntariness of use. The UTAUT was developed through the review and integration of several dominant theories and models (Venkatesh et al., 2003) that has been developed over the years including but not limited to the TRA, TAM, SCT, TAM2 and DOI etc.

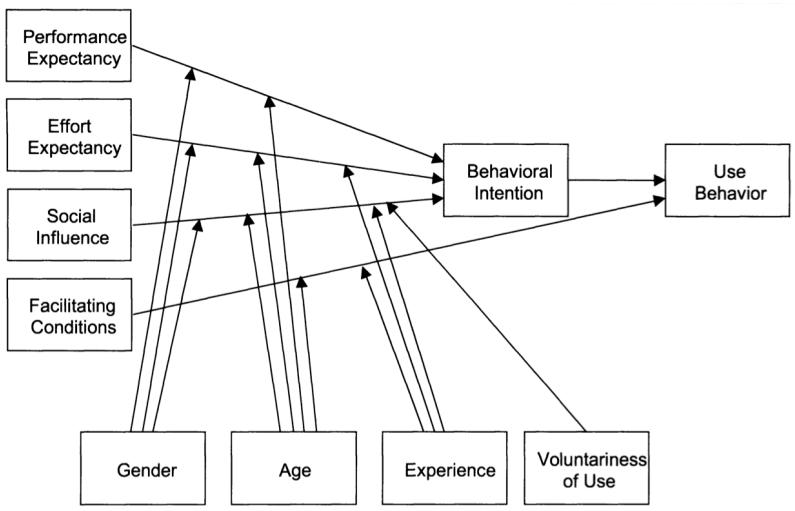


Figure 22 - Unified Theory of Acceptance and Use of Technology model, adapted from Venkatesh et al. (2003)

The main objective of the UTAUT was to integrate the fragmented theory and research on acceptance of technology in to unified theoretical model that captures the essential elements that has been empirically tested over the years.

8.6.4 Technology Organisation Environment Framework

The Technology, Organisation, Environment (TOE) framework is developed by Tornatzky and Fleischer (1990). The TOE framework is an organisation-level theory that explains that three different components of an organisation's context are posited to influence technological innovation for the organisation. The context set out in the DOI theory is similar to technology and organisation context in the TOE framework, however the framework includes the external environment (Gorla et al., 2017). Baker (2012) considers environmental context as the structure of the industry, the presence or absence of technology service providers, and the regulatory environment.

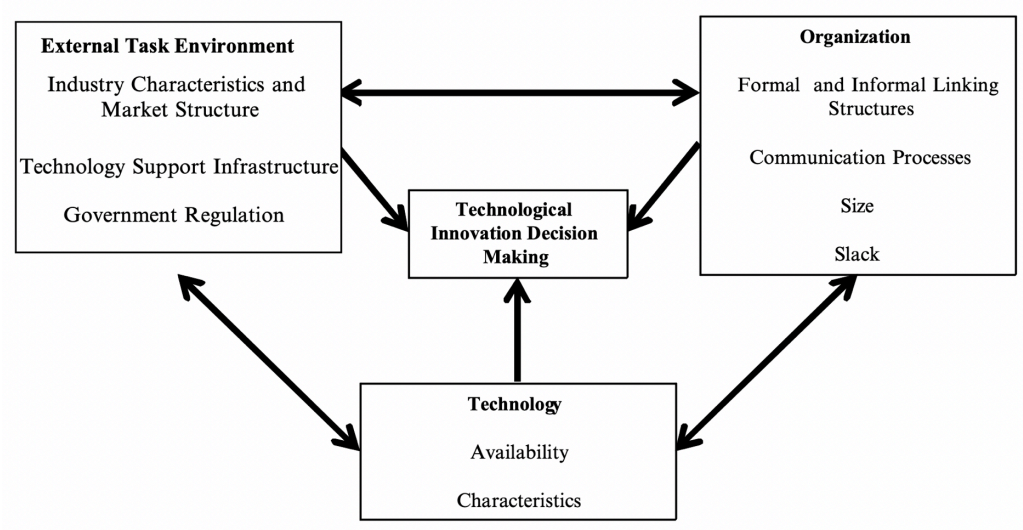


Figure 23 - TOE Framework, adapted from Baker (2012)

Baker (2012) also emphasises that the framework supports organisations to consider the type of organisational changes that will be created by adopting a new innovation, as the level of impact of the innovation in the organisation will be based on the factors outlined in the framework.

8.7 Appendix 7 | Processual Inquiry on Strategic Alignment Process

This Appendix provides detailed narrative on the qualitative data analysis completed to draw the conclusions as outlined in Section 5.2.1 of this thesis.

The table below provides a snapshot of the phases and stages of the strategic alignment process observed in the case study organisations as outlined in Section 4 of the thesis.

Table 4 - Summary of Phases and Stages across the Case Study Organisations (CSO1, CSO2 and CSO3)

Case Study Organisation 1 – ESBN | CSO1	
Phases	**Stages**
Strategic Alignment	Mobilisation
	Visioning
Strategic Design	Structuring the Programme
	Theme Vision and Principles Definition
Shaping & Prioritisation	User Journeys (As-Is and To-Be) Definition
	Epics and Service Blueprint Development
	Fine-Tuned Value Cases and Prioritisation
	High Level Solution Architectures and Platforms Design
Solution Delivery Planning and Handover	Solution Delivery Planning Hand-Over to Delivery teams and Closure

Case Study 2 – GNI | CSO2	
Phases	**Stages**
Mobilisation	Kick-off and Planning
Current State Analysis (Discovery and As-Is Analysis)	Landscape Analysis
	Cost Analysis
To Be Architecture	Deep-Dive Analysis
	Target Architecture
Business Case and Roadmap	Business Case
	Implementation Planning
	Executive Summary Development
Sign-off and Handover	Sign-off Handover

Case Study Organisation 3 – UÉ | CSO3	
Phases	**Stages**
Mobilisation	Kick-off and Planning
Visioning	Detailed Review and Analysis of Business Strategy
	Voice of the Customer Analysis
	External Market Analysis
	Definition of IT's Role and Ambitions
	Sign-off of Visioning Phase and Agreement of Scope for the Next Steps
Development of Sub-Strategies (Designing for Future)	Current State Analysis
	Definition of Desired State
	Definition of Initiatives to Build Capabilities
Roadmap Planning	Prioritisation of Initiatives
	Roadmap Planning
Sign-off and Handover	Sign-off Handover

The following sub-sections will outline the "Phases" and "Stages" of the strategic alignment process including the associated activities within, and with a specific focus on the "IS Artefacts". These components will form the strategic alignment process related part of the proposed conceptual framework that this thesis will provide with the objective of making a contribution to the academic knowledge. Each sub-section will provide the cross case analysis, and rationale for the theory development.

8.7.1 Mobilisation

There are several differences in the factors that triggered the strategic alignment process in the case study organisations. First of all, it is important to note that all of the case study organisations had an existing IS strategy and plan in place that was completed in the previous three to five year period. Given the regulated nature of

network utilities in Ireland, having an IS Strategy and Plan is mandated due to the regulatory budget processes governed by the CRU (Commission for Regulation of Utilities). CSO1 was in the process of mobilising a large programme for transforming the country's electricity system and transitioning to a low-carbon future with key objectives of decarbonisation, electric vehicles, smart grid, customer engagement and innovation. Business strategy document clearly outlined the vision and future for the organisation, however what this future means for the operational staff and what changes are needed in IS to enable the proposed future were not clear due to the significance of the changes needed, and these aspects were open to interpretation. CSO1 also wanted to have a large base of resources engaged in the programme, not only to deliver the work, but also to inform them about the business strategy and get them to participate and become part of the change, as the overall objective was to drive transformation across the organisation. The level of change expected in CSO1 was much greater and more complex compared to CSO2. CSO3 had already started and was progressing the transition of Local Authorities for water services to build a truly national utility 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. Although the size and scale of change was similar to CSO1, CSO3 was in a later stage of the overall programme, and expectations from each business function were clearly articulated in the Thrive and WSSP 2050 business strategy documents.

CSO2's business strategy was 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. CSO2 considered its IS function as an enabler to achieve operational excellence that will allow CSO2 to operate in an innovative, efficient and sustainable manner specifically on digital development (systems transformation, agility and security) and data development (accessibility, reliability and improved insights). CSO2 had outlined a clear business strategy that provided sufficient level detail of the impact areas and operational level expectations, specifically for IS function, these expectations were listed as cost reduction, modernisation and reduced cyber-security.

Because of the aforementioned reasons, the naming and content of the initial phase of the strategic alignment episodes were different in CSO1 compared to CSO2 and

CSO3. It was a coincidence that CSO1 had even named the initial phase of their programme as “Strategic Alignment”, but this was neither the full interpretation of strategic alignment (based on literature review provided in Section 2 of this thesis) by CSO1 nor the intent by CSO1. CSO1 focused on visioning activities in the mobilisation phase, because they wanted to create a vision for IS function that is strategically aligned to the business strategy, CSO1 focused on the future of the business as documented in the business strategy documents, and utilised visioning activities to create a common understanding, establish stakeholder engagement across business, engineering and technology stakeholders, and secure “permission” to engage for the rest of the programme.

The common set of activities across CSO1, CSO2 and CSO3 for the initial phase of the IS Strategy and Plan development included the development of an approach and a project plan outlining what other phases and stages that the strategic alignment episode would have, what activities would be completed, what the key deliverables and documents to be produced were, who would approve the completion and who would sign-off. The initial phase also included the definition of core project team, and also set of other stakeholders who would contribute to the strategic alignment episode. While it is observed that the term of “strategic alignment” is not specifically used in the approach or plan documents across CSO2 and CSO3, it was implied in the overall objective of the strategic alignment episode.

The Researcher considers the initial phase of the strategic alignment episode for this thesis as “Mobilisation” and defines it as “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 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”.

8.7.1.1 Stages and IS Artefacts of the "Mobilisation" Phase

Getting started is as important as defining the desired end game at the start. The objective of the proposed strategic alignment episode should be crystal clear at the start of the Mobilisation phase. This is important not because of the definition of deliverables and expected content or the type of data to be collected, or type of analysis to be done, but to ensure that expectations from the delivery team is set for success and formation of the skills within the team is secured properly and more importantly, the right set of stakeholders are identified to take part in the engagement at all levels within the organisation.

A cross-case analysis across the case study organisations in relation to the stages observed within the "Mobilisation" phase is provided in the following table.

Table 5 - Cross Case Analysis of Stages in Mobilisation Phase

Case Study Organisation	Stages of "Mobilisation" Phase	Key Deliverables Developed (IS Artefacts)
CSO1	**Mobilisation**: The programme was kicked off with Mobilisation stage to prepare for visioning workshops.	Key stakeholder list, Speakers list, Participant attendee list, Schedule of visioning workshops, Agenda and Discussion slides
	Visioning: Included multiple phased brainstorming approach including "Futures View", "Outside-In", "Outside-Out" and "Mobilise" workshops.	Pillars including high-impact scenarios, Disruption hypothesis, Top opportunities, Strategic growth platforms, User Personas, User journeys, Future experiences, Business models and capabilities, Prioritised initiatives, Impacted stakeholders list, Behaviour shifts required, Agreed commitments.
CSO2	**Kick-off and Planning**: This stage focused on getting the core project team together to define and agree on the approach, finalise the project plan, and to identify the key stakeholders to be engaged.	Project Plan, Stakeholder map
CSO3	**Kick-off and Planning**: This stage focused on getting the core project team together to define and agree on the approach, finalise the project plan, and to identify the key stakeholders to be engaged.	Project Plan, Stakeholder map

At the beginning of any strategic alignment episode, It is important to articulate why the strategy development activity is being triggered. The reasons may range from time expiry of the previous IS strategy, changes in business strategy or operating environment, major shifts in technology landscape, upcoming regulatory changes or budgeting cycle, to address any identified misalignment or any specified performance or operational issues linked to the IS strategy execution and IS operations, and point updates on existing strategy documents (i.e. one of the strategies in the family of IS strategy document set). This stage requires detailed discussion between the business

and IS executives responsible for leading the strategic alignment episode. Where necessary, business stakeholders can also be consulted; this may be the case for technology led transformation programmes that may require a new IS strategy for delivery success.

The definition of phases and stages that will apply to the strategic alignment episode, including the type of analysis that needs to be conducted, should be defined in advance, as this will drive the size and shape of the engagement. This is why knowing exactly what the “Key Exam Questions” are, is considered as absolute necessity. The planning stage includes the definition of scope boundaries for the strategy development, crystallises the scope, and also defines the team members and skills needed to conduct the work. At this stage, the availability of all required team members should be checked, and agreement to utilise resources across IS and business functions should be reached before the commencement of the Kick-Off stage. The Kick-Off stage includes a formal meeting and/or written communication to key stakeholders that will be consulted during the strategic alignment episode. The Kick-Off meeting should be attended by all core team members, and the scope and plan to deliver the engagement should be clearly explained and discussed. This stage can also appear in the internal newsletters or intra-company communication channels to inform and create an awareness that the organisation has mobilised a team for the upcoming strategic alignment episode. The table below outlines the phases, stages and IS artefacts for the “Mobilisation” phase that will feed into the strategic alignment process definition.

Table 6 - Mobilisation Phase, Stages and IS Artefacts

Mobilisation Phase	Stages of "Mobilisation" Phase	Key Deliverables Developed (IS Artefacts)
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.	**Definition of the "Key Exam Questions"**: This stage involves articulating the reasons for the strategic alignment process commencement and defining the scope of the engagement with a set of clear and concise objectives. This requires detailed discussion between the business and IS executives responsible for leading the engagement.	**Key Exam Questions Document:** A document that articulates the reasons for the strategy development activity and defines the objectives of the engagement. The set of clearly defined objectives for the strategy development engagement and key questions that are expected to be answered by the IS strategy engagement at the end of the engagement. It is important to note that the key exam questions are clear and granular enough not only to define the type of analysis that needs to be conducted but also to identify the strategy teams members, required skills, and stakeholders needed to be involved during the strategy development engagement.
	Stakeholder Mapping: This stage involves identifying all relevant stakeholders and their expectations and availability, as well as developing a plan to manage their expectations throughout the strategy development engagement. This includes analysing the stakeholders' interests, needs, and concerns, and developing a communication plan to engage with them.	**Stakeholder Map**: A table that identifies all relevant stakeholders and their expectations and availability, as well as a plan to manage their expectations throughout the strategy development engagement.
	Scoping and Planning: This stage involves defining the phases and stages of the strategy development exercise, as well as the type of analysis that needs to be conducted. It also includes defining the scope boundaries, crystallizing the scope, and identifying the team members and skills needed to conduct the work. Additionally, this stage involves defining the deliverables and timelines for the engagement, as well as checking the availability of all team members and reaching an agreement to utilise resources across IS and business functions. The review and approval of each phase is completed aligned with the overall plan and approach that has been applied in the IS Strategy development exercise based on the Sign-Off plan that is developed in this stage.	**Scoping and Planning Document**: A document that defines the phases and stages of the IS strategy development exercise, as well as the type of analysis that needs to be conducted to address the "Key Exam Questions" and the list of deliverables to be developed as part of the IS strategy development exercise. It also includes the scope boundaries, and timelines for the engagement. This document should also include a detailed plan that outlines the tasks, list of required analysis aligned with the "Key Exam Questions", timelines, and resources required to complete the strategy development engagement. **Sign-Off Plan**: A table that lists the key stakeholders who will need to review, provide feedback and officially sign-off the planned deliverables across the phases and stages of the IS Strategy Development.
	Kick-off: This stage involves a formal meeting and/or written communication to key stakeholders that will be consulted during the strategy development engagement. The Kick-Off meeting should be attended by all core team members, and the scope and plan to deliver the engagement should be clearly explained and discussed. This stage can also appear in the internal newsletters or intra-company communication channels to inform and create an awareness that the organization has mobilised a team to conduct an IS strategy and plan engagement. Additionally, this stage involves setting expectations for communication and collaboration throughout the engagement.	**Kick-off Slide Deck**: A slide deck containing the summary of scoping and planning document and stakeholder map.

8.7.2 Discovery

The second phase of strategic alignment episode varied considerably across the three case study organisations due to differing internal contexts and strategic priorities. However, by the conclusion of this phase - or the onset of the third - all organisations had converged toward a similar strategic position, preparing to embark on comparable implementation planning activities.

At the end of the Mobilisation phase, CSO2 had a plan, approach, core team, and a set of stakeholders to tackle their "Key Exam Questions"; to reduce costs, modernise and improve cyber-security. CSO2 focused on Current State Analysis (alternatively referred as Discovery or As-Is Analysis) to gather relevant information including a breakdown of cost components, technical debt analysis, vendor roadmap analysis and future business needs. At the end of the second phase, CSO2 had a clear baseline and had collected several data points related to the episode's objectives.

CSO1 did not have a complete and clear set of "Key Exam Questions" at the end of the Mobilisation phase, they had a shared understanding on what needed to be done, but lacked sufficient detail. As outlined in Section 4.1.4.2.3, one of the senior managers commented "*...even though the high level came from everyone across the top level in the company as we started to run workshops, we weren't close enough to the granularity*" (E4). Therefore, CSO1 held additional workshop sessions with the business and engineering teams during their second phase, conducted a sense-check with the key stakeholders, and also helped the programme team to gather additional information needed to develop required documentation in the Strategic Design phase. In other words, it was still a "Discovery" phase, not focused on the current state analysis of the systems or processes (they eventually addressed this in their third phase), but the "Discovery" was on the ideas and high level initiatives that were identified at the visioning workshops in CSO1's Mobilisation phase. CSO1 also focused on developing the programme structure for the transformation programme during their second phase, as their initial phase was not appropriate for finalising a structure before shaping the scope which became more granular towards the end of the second phase.

CSO3 was in a similar position as CSO1 at the beginning of the second phase. The development of IS Strategy and Plan was requested by the CEO, and it was assigned to the CIO. When the CSO3 team was assigned to the strategic alignment episode engagement, they required further understanding and articulation of the business strategy and related documents. Although the second phase in CSO3 is called as "Visioning", the only visioning activity in the phase was limited to the discussions about the role of IS in the organisation. The rest of the phase focused on understanding the business strategy and building engagement with the business stakeholders, and mainly included workshops with business stakeholders where IS team was in the "listening mode" regarding business objectives and challenges. Both CSO1 and CSO3 focused on "Discovery" in the second phase of their episodes where the main objective was to establish what the business strategy entailed (for CSO3), and what the ideas generated in visioning workshops represented (for CSO1). In addition to the voice-of-the-customer, and documentation review sessions, CSO3 conducted an external market analysis to understand what other water utilities are doing to meet evolving needs of water utilities, and they also focused on defining their ambition to become a trusted adviser to the

business based on a framework utilised. Similarly in CSO1, “outside-in” workshops were conducted in their Mobilisation phase. The Researcher considers these activities as “Discovery”, although the timing and sequence of events may be slightly different, they serve for the same purpose: to outline “what needs to change and happen” and support the identification of gaps and improvement areas, ultimately answering the “Key Exam Questions”.

The Researcher considers the second phase of the strategic alignment episode for this thesis as “Discovery” and defines it as “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 organisation'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”. The Researcher notes that the above description does not reflect where CSO1 and CSO3 at the end of their second phase, but this noted discrepancy will be covered in the next section and will also be addressed in the “Stages” related sub-sections.

8.7.2.1 Stages and IS Artefacts of the “Discovery” Phase

During the stages of the Discovery phase, CSO2 completed previously defined landscape and cost analysis according to the engagement plan in order to tackle with their “Key Exam Questions” to reduce costs, modernise and improve cyber-security. The IS arte-facts coming out of the stages of Discovery phase provided a detailed baseline and understanding of what needs to be focused on in the next phase as the team documented cost component breakdown, technical debt analysis, vendor roadmap analysis and future business needs. CSO2 was ready to start thinking about “what needs to change and happen” for them to reach their engagement objectives and also to ensure alignment of the initiatives with the key business strategy and objectives. A cross case

analysis across the case study organisations in relation to the stages observed within the "Discovery" phase is provided in the following table.

Table 7 - Cross Case Analysis of Stages in "Discovery" Phase

Case Study Organisation	Stages of "Discovery" Phase	Key Deliverables Developed (IS Artefacts)
CSO1	**Structuring the Programme**: This stage focused on documenting and summarising the agreed direction in the strategic alignment phase and to finalise the structure for the programme.	Programme vision, Programme principles, Value framework, Programme organisation structure, Programme governance, Transformation roadmap
	Theme Vision and Principles Definition: This stage focused on the definition of opportunities that are linked to single or multiple initiatives, therefore in the next phase of the Programme, which is 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.	Themes and opportunities, Theme based experience blueprints, Theme based high level value case, Theme Delivery Plan
CSO2	**Landscape Analysis**: This stage focused on set of analysis including current architecture and technical debt, expected changes in renewables impacting gas network that will drive future business needs, and also future product plans of key software vendors that may impact the strategy.	Application Architecture - As Is, Application Landscape Analysis Summary, Software Vendor Product Roadmap Analysis, Future Business Needs Analysis, Application Analysis for Gas Management Future Challenges
	Cost Analysis: This stage focused on total cost analysis of the current technology landscape.	Cost Analysis for the Application Landscape, Total Cost of Ownership Analysis
CSO3	**Detailed Review and Analysis of Business Strategy**: This stage included an extensive review and analysis of key business strategy documents that the ICT strategy is to be built upon.	Mapping Table of Business Strategy into Key Strategic Dimensions
	Voice of the Customer: This 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.	Inventory and Mapping of Key Take-Aways from Voice of the Customer (VoC) Sessions into Key Strategic Dimensions, Key Strategic Dimensions
	External Market Analysis: This 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.	External Market Analysis
	Definition of IT's Role and Ambitions: This stage focused on an inside-out review of the IT team ambitions and targets and concluded with a target setting exercise.	Role of IT and Ambitions of IT Function
	Executive Summary for Board Approval: This stage included the development of executive summary presentation for the board meeting.	Uisce Éireann ICT Strategy on a Page, Definition of ICT Sub-Strategies to be developed

As previously noted there was a discrepancy in CSO1 and CSO3 compared to CSO2, because they were in a different situation at the beginning of the Discovery phase as the "Key Exam Questions" for their engagements were different than CSO2. Therefore, the required set of activities and IS arte-facts that they need to focus were slightly different but the nature of what they were trying to achieve in the stages of the Discovery phase was exactly the same. Both CSO1 and CSO3 needed to engage further with the business stakeholders to establish "what needs to change and happen" to find the answers for their "Key Exam Questions". The table below outlines the stages and IS artefacts for the "Discovery" phase that will feed into the strategic alignment process definition.

Table 8 - Discovery Phase, Stages and IS Artefacts

Discovery Phase	Stages of "Discovery" Phase	Key Deliverables Developed (IS Artefacts)
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.	**Key Strategic Dimensions**: This stage involves a thorough review of key business strategy documents to gain a deep understanding of the organization's business strategy, objectives, and ambitions. The primary objective of this stage is to identify a set of key strategic dimensions that will guide the IS strategy development. To achieve this objective, a series of sessions may be conducted with business stakeholders to establish a better understanding of the business strategy and objectives. In cases where the business strategy is unclear, recently introduced, or complex and complicated, the IS core team may consider facilitating "visioning" sessions with wider business and IS stakeholders across all levels to progress this stage.	**Key Strategic Dimensions Document**: A brief business context document that outlines the key strategic pillars or dimensions that will guide the IS strategy development. Key strategic dimensions can be documented as heading and supporting brief description that summarises the components or pillars of the business strategy.
	Current State Analysis: This stage is the "discovery" of business oriented content on the current performance of IS services provided to the organisation, current challenges, gaps, improvement areas need to be fully understood by the core team in the Strategy Design phase. The scope of this understanding should cover the meaning and practicality of strategic objectives and underlying business processes that needs to be supported/enabled by IS, major business challenges, pain points, business ambitions, and feedback on existing technology solutions and services currently in place. Some of the key analysis (relevant to the "Key Exam Questions") that can support this stage are included below; ▪ **Voice of the Customer:** Series of meetings with business stakeholders to capture the Voice of the Customer allow participants to provide deeper insights on their challenges, objectives and expectations from the IS organisation aligned with their business objectives. In addition to these sessions, IS user experience surveys can also be considered a way to capture insights. ▪ **Total Cost of Ownership:** Detailed cost analysis of the IT landscape (including hardware, software and services) with a view of total cost of ownership (from requirements gathering, design, delivery, support, warranty) analysis can be considered if related to the objectives of the strategy development. ▪ **Operational Performance Analysis:** Several types of maturity (IS's ability or performance to support business, performance of IS Operations) analysis can be included to outline the performance of IS services across business operations and their linkage to the key strategic dimensions and business objectives. Business participants in this analysis can score the IS performance (as high, medium, low) related to their detailed business process or functional areas, and provide insights on what high performance means to them to glean actionable insights from this analysis for IS to improve the ways of working and provided IS capabilities to the business. ▪ **Role of IS in the Organisation:** This analysis enables IS team to assess how they are perceived within the business functions across the organisation. This can be done by IS team members or business team members by asking two simple questions (i.e. How IS is perceived by the business? And how does the business want to perceive IS?) on an appropriate scale spectrum where IS working as a reactive, active or enabling levels to add value to business units. The results of this analysis can be used to set target ambitions for IS to achieve in the next strategy execution period.	**Current State Analysis Report**: A report that outlines the current state of the organization's business-oriented content reflecting the relevant areas of scope linked to the "Key Exam Questions". The overall document should provide a detailed understanding of the current practices, how well or bad the IS services received by business, what functions or processes are well supported, and areas of problems, challenges, gaps should be clearly outlined. This document holds the most critical information that will shape the strategy, as project team will have the full visibility and understanding of the key strategic dimensions (as documented earlier) and with this document, current performance of IS within the organisation, and current requirements of business from the IS should be documented. This document will be the key baseline for the Gap Analysis stage and will influence the strategy design related activities in the next phase.
	Technology Landscape Analysis: This stage is the "discovery" of technology oriented content that needs to be at least considered by the core project team in the Strategy Design phase. The discovery stage for technology trends aim to establish an understanding of the possible technology solutions that can be considered in the next phase of the strategy development process while establishing a clear understanding of the existing technology landscape and its limitations and challenges. Some of the key analysis (relevant to the "Key Exam Questions") that can support this stage are included below; ▪ **Technical Debt Analysis:** Technical debt analysis aims to outline current version of key software products and their product life cycle analysis, and to identify the major technology trends and current state of the technology available in the market. ▪ **Technology Architecture Analysis:** Utilising an Enterprise Architecture view by outlining key components of the enterprise architecture and conducting technical maturity assessments can be used to articulate the technology landscape. The use of a reference architecture model can help to identify any gaps or duplications across the landscape. ▪ **Enabling Technologies Analysis:** Review of alternative technology solutions to address the defined current performance challenges should be considered. ▪ **Market Analysis:** What other organisations doing is another aspect of the technology trend analysis that provides learnings from the other organisations and different type of technologies. ▪ **Review and Definition of Principles:** Review of existing and definition of required additional technical principles and guidelines are needed to govern the future IS related decisions.	**Technology Landscape Analysis Report**: A report that outlines the current state of the organization's technical-oriented content reflecting the relevant areas of scope linked to the "Key Exam Questions". The overall document should provide a detailed understanding of the current technologies in use, areas of problems, challenges, and gaps should be clearly outlined. This document holds the most critical technical information that will shape the strategy. This document will be the key baseline for the Gap Analysis stage and will influence the strategy design related activities in the next phase.

8.7.3 Strategy Design

At the end of the third phase (Shaping and Prioritisation), CSO1 completed the definition of opportunities and converted them into epics and user stories which are linked to initiatives, experiences, personas and themes. CSO1 developed As-Is (current state) and To-Be (future state) User Journeys to illustrate the changes within the end-to-end process flow. 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 provided clarity across all stakeholders, and improved 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 CSO1 organisation in the programme review meetings.

Third phase of strategic alignment episode for CSO2 (To-Be Architecture) focused on establishing a future state for the technology landscape that will support the CSO2's business strategy, including its ambition and aspirations for the future. CSO2 conducted a set of working sessions with software vendors and external consultants to identify required initiatives that will bridge the gap (based on a comparison between second and third phase findings) by building upon the data points and insights gained in the previous phase (Current State Analysis).

At the end of the third phase (Designing for Future), CSO3 completed the definition of future state IS landscape and identification of initiatives that will support business strategy and objectives based on the data points and insights gained both in the previous phase (Visioning) and the stages of the Designing for Future phase. CSO3 completed relevant activities across multiple stages of the two phases of their engagement plan which was identified in the Mobilisation phase.

The rationale that CSO3 followed is very similar to how CSO1 approached the same challenge. While all case study organisations followed different paths, at the end of the third phase of their engagement, they have all reached at the same level of understanding of their business strategy and objectives, identified their gaps and improvement areas of their existing IS landscapes and capabilities. All case study

organisations developed a list of initiatives that will allow them to start building a roadmap and implementation plan in the next phase of their engagement.

The Researcher considers the third phase of the theoretical framework for this thesis as “Strategy Design” and defines it as “This phase is the most critical part of the strategic alignment process, where the organisation'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 organisation 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 organisation, 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”.

8.7.3.1 Stages and IS Artefacts of the “Strategy Design” Phase

A cross case analysis across the case study organisations in relation to the stages observed within the “Strategy Design” phase is provided in the following table.

Table 9 - Cross Case Analysis of Stages in Strategy Design Phase

Case Study Organisation	Stages of "Strategy Design" Phase	Key Deliverables Developed (IS Artefacts)
CSO1	**User Journeys (As-Is and To-Be) Definition**: This stage focused on current state analysis and definition of to-be user journeys.	Series of User Journeys and associated documentation
	Epics and Service Blueprint Development: This stage focused on end to end alignment of user journeys and high-level description of features or functionality to be introduced as part of the proposed initiative.	List of Epics, Epic definitions, User journey mapping, End to end Service Blueprint
	Fine-Tuned Value Cases and Prioritisation: This stage included cost and benefit analysis for the key initiatives that included set of user journeys and epics. Only approved and prioritised initiatives progressed to the next stage.	Value case, Decisions on initiatives, Experiences summary, Prioritisation assessment framework
	High Level Solution Architectures and Platforms Design: This stage provided high level technical design and outlined solution architecture for approved initiatives to ensure end to end integrated architecture and alignment with enterprise architecture principles and guidelines.	Solution architectures, Technical solution platforms
CSO2	**Deep-Dive Analysis:** This stage included series of deep-dive sessions on each identified potential opportunity in the previous phase, and detailed options were documented for each imitative.	Initiative Outline (as an Output of the Deep-Dive Sessions), Application Analysis for Deep-Dive Sessions
	Target Architecture: This stage included series of deep-dive sessions on each identified potential opportunity in the previous phase, and detailed options were documented for each imitative.	Application Architecture – To-Be, Strategic recommendations, Key strategic themes
CSO3	**Current State Analysis**: The stage focused on outlining the current state and challenges for the key capabilities that need to be improved for the key domain of the sub-strategy area.	Current State Analysis, External Market Analysis
	Definition of Desired State: This stage focused on the definition of the desired stage where the current challenges and practices are improved to a new level that can provide the necessary support to business functions to realise their target business outcomes.	Desired State Definition, Mapping of Sub-Strategy and ICT Capabilities
	Definition of Initiatives to Build Capabilities: This stage focused on the identification of initiatives that needs to be executed to move UÉ capabilities from the current state to the desired state.	List of Defined Initiatives, ICT Sub-Strategy Principles

The overall approach taken in CSO3 at the Mobilisation phase was to first define the customer-centric and business-oriented ICT strategy at a very high level. Therefore, the focus in the Discovery phase was to dig deep and engage with business to ensure full understanding of what business needs to deliver on the UÉ's business strategy and objectives. When CSO3 commenced Strategy Design phase, their focus was to develop a set of ICT sub-strategies that would support the overarching ICT Strategy which provides a very high level definition of the future business landscape and the required IS capabilities. Therefore, the early stage within the Strategy Design phase of the CSO1 and CSO3 was significantly different from that of CSO2.

CSO3 needed to return to the drawing board and complete further analysis on the current landscape and expand the scope of their analysis onto the identified focus areas of each of the sub-strategy domains. CSO3 repeated the Discovery phase and related stages and developed relevant IS artefacts specifically for the sub-strategy domains. With the completion of the Current State Analysis and Definition of Desired State stages and related activities (similar to those outlined in the Discovery phase), CSO3 was able to identify gaps and areas for improvement when compared with the required operational, data and technical capabilities needed to enable business the business to realise its strategy and objectives.

Similar to CSO3, CSO1 also focused on the visioning and business engagement in the Discovery phase. As a result, they did not complete any activities or analysis to fully understand the current state (or As-Is) of the business process, operations and underlying IS landscape and capabilities. CSO3 had a clear vision of “what needs to change and happen”; therefore, CSO3 needed to repeat some of the stages and develop associated IS arte-facts at the early part of the third phase of their engagement. With the completion of User Journey and Epic (including both As-Is and To-Be) and Service Development stages, CSO3 was able to identify 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.

CSO2 completed the Deep-Dive Analysis stage that included the analysis of potential options, and discussions within the team led to the finalisation of decisions. The Target Architecture stage included the formation of the future state architecture and identification of required initiatives to transform the current landscape.

The table below outlines the stages and IS artefacts for the “Strategy Design” phase that will feed into the strategic alignment process definition.

Table 10 – Strategy Design Phase, Stages and IS Artefacts

Strategy Design Phase	Stages of "Strategy Design" Phase	Key Deliverables Developed (IS Artefacts)
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.	**Gap Analysis**: This stage, which consolidates the insights gained during the Current State Analysis and Technology Landscape Analysis stages, aims to pinpoint discrepancies between the existing IS capabilities and the requirements needed to effectively support the Key Strategic Dimensions. This stage synthesises findings from the Discovery phase, highlighting gaps and improvement areas where current IS services fall short or are entirely absent. Key objectives of the Gap Analysis stage include: ▪ **Identifying Performance Shortfalls:** Pinpoint instances where current IS services underperform, negatively impacting business operations or fail to meet strategic objectives. ▪ **Revealing Service Gaps:** Uncover situations where no IS services exist to address critical business needs, hindering progress toward strategic goals. ▪ **Documenting Challenges and Impediments:** Thoroughly document technical and functional challenges and obstacles in detail that impede IS from fulfilling its role in driving the organization's Key Strategic Dimensions.	**Gap Analysis Report**: A report that clearly documents all the identified gaps and improvement areas across current state analysis and technology landscape analysis. This report consolidates all relevant findings related to the "Key Exam Questions". The objective of this report is to outline "What" needs to be done to support the Key Strategic Dimensions and enable business to achieve its objectives at a granular level. Gap analysis report focuses on delta between the current and desired state of technology landscape, performance and perception of the IS services, the report should outline the list of business areas and their requirements that are not currently or fully supported by IS, but critical for business to achieve their strategic objectives.
	Definition of Future State: The Future State Definition is a critical stage of the Strategy Design phase, providing a detailed and actionable blueprint for the optimal IS capabilities and performance metrics required to support the organization's business strategy and objectives. By consolidating the findings in the previous stage, Future State Definition stage outlines the desired state (where none of the identified gaps exist) for the IS services and capabilities and what those means for the business. This stage of the engagement should engage both business and technical teams to design the snapshot of the future of IS in the organisation that will have improved or new IS capabilities, enabling better alignment with business objectives and fostering a more robust IS strategy that will enable strategic alignment. Future State Definition is formulated by considering several key factors that were analysed in the previous phase. By crafting a clear and comprehensive Desired Future State Definition is the most critical activity to establish a solid foundation for the IS strategy document, ensuring that it addresses the most pressing needs, aligns with business objectives, and leverages the power of technology to drive success.	**Future State Document:** A detailed report that brings insights from the earlier phase, and also addresses the outcome of the Gap Analysis in an holistic manner and covers the following key sections for completeness while addressing the answers to the "Key Exam Questions". ▪ IS Ambitions: Building upon the IS ambitions identified during the Discovery phase, this section outlines the specific IS capabilities and performance metrics needed to achieve each ambition. ▪ Emerging Technologies: Incorporating insights from the Technology Landscape Analysis, this definition accounts for cutting-edge technologies that could significantly enhance IS capabilities and better align them with business needs. This may include advancements in areas such as artificial intelligence, robotics process automation, machine learning, cloud computing, or cybersecurity as well as the upgrade, renewal or replacement of current technologies in place to address the technical debt identified in the existing technology landscape. ▪ Industry Best Practices: Drawing on the findings from the Current State Analysis and external research, this section identifies and integrates industry-leading practices that demonstrate proven success in similar organizations. Adopting these best practices can help improve IS efficiency, effectiveness, and overall alignment with business objectives. ▪ Alignment with Key Strategic Dimensions: This section explicitly links the desired future state to the organization's Key Strategic Dimensions, demonstrating how improved IS capabilities will directly contribute to the achievement of these strategic goals ensuring that IS capabilities are robust enough to support growth, innovation, and adaptation to changing market conditions. ▪ Architectural View: The Architectural View is an essential component of the overall IS Strategy, offering a visual representation of the desired future state of IS capabilities across systems of record, systems of engagement and systems of insights. This section complements the written description provided in the Desired Future State Definition and serves to enhance stakeholder understanding and engagement by providing an overview of the technology landscape, detailed layered model with a view of business functions and data domains including integration points. ▪ Performance Metrics: To facilitate monitoring and evaluation, the desired future state definition includes specific, measurable performance metrics for each IS capability. These metrics enable tracking of progress, identification of areas requiring improvement, and assessment of the overall impact of the IS strategy on business operations.
	Definition of List of Initiatives: Following the establishment of the future state of IS capabilities and what they mean to business, the next vital step is to translate this vision into a concrete set of initiatives that form the core of the IS Strategy as well as the path to the strategic alignment. This stage is completed by converting the future state definition into initiatives that are required to build the future state while addressing the gaps documented. The primary objective of this stage is to define and document the brief description, objective and business and/or technical justification for each initiative identified and also categorise the initiatives under key strategic dimensions to ensure alignment and further analysis in the next stage.	**Initiatives Summary Report**: A summary document that includes the full list of initiatives with brief description, objective, and business and/or technical justification. Initiatives can be categorised under different headings or groups to ease the review and help the reader in mapping the initiatives to the future state.

8.7.4 Building the Roadmap

At the end of the third phase (Shaping and Prioritisation), CSO1 completed the definition of opportunities and converted them into epics and user stories which are linked to initiatives. In the fourth phase (Solution Delivery Planning and Handover), their focus shifted to delivery planning to ensure that communication among stakeholders was managed to set the right expectations regarding the delivery of scope and associated timelines.

In the fourth phase, CSO2 focused on building the business cases and progressed the high level delivery plan to reflect dependencies between initiatives. CSO2 also progressed the development of executive summary, secured final approval on the GNI Application strategy and completed handover activities to portfolio delivery teams.

CSO3 followed a similar path as CSO2 in the fourth phase of the strategic alignment episode. Initiatives were defined and prioritised based on an effort-value matrix, a comprehensive delivery plan was prepared, approval was sought on the UÉ ICT sub-strategies, and handover activities were completed.

The Researcher notes that there are slight variances across the three CSOs specifically on the activities associated with the sequence of business value analysis and implementation planning. In CSO1, business value analysis was completed before delivery planning began, whereas in CSO2 and CSO3, business value analysis was conducted in parallel with delivery planning. This reflects the continuous and iterative nature of the strategy-related activities that are completed throughout the course of the strategy development engagement.

Researcher considers the fourth phase of the strategic alignment process for this thesis as “Building the Roadmap” and defines it as “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".

8.7.4.1 Stages and IS Artefacts of the "Building the Roadmap" Phase

In CSO1, the initiatives were defined in the second phase (Strategic Design) to materialise the vision that was identified in the mobilisation phase. As-Is User Journeys were prepared to support the development of the To-Be User Journeys, and business case analysis were conducted in parallel to this effort. It is also important to note that CSO1 was designing and building experiences for their staff and external stakeholders that will enable "new futures". The content of the discussions were at the functional/feature/product level, whereas the content of the discussions in CSO2 and CSO3 were at the capability/application level. Due to the aforementioned differences between CSO1 and other two CSOs, the level of detail and granularity covered in the business case exercises varied across the case study organisations, but was appropriate for their respective objectives and rationale. A cross-case analysis across the case study organisations in relation to the stages observed within the "Building the Roadmap" phase is provided in the following table.

Table 11 - Cross Case Analysis of Stages in Building the Roadmap Phase

Case Study Organisation	Stages of "Building the Roadmap" Phase	Key Deliverables Developed (IS Artefacts)
CSO1	**Solution Delivery Planning**: This stage aims to ensure that plans are confirmed, design authority approval is sought, delivery resources are aligned, management and governance structures are in place, and project kick-off is confirmed with the agreed plan.	Detailed definition of the Initiatives, Detailed plan for delivery, Product roadmap, Design authority approved architectural documents including cyber-security review, Change impact assessment & change delivery plan, Initiative opportunities & backlog register, Change impact assessment, Value measurement roadmap,
	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.	
CSO2	**Business Case:** This stage focused on cost and benefit analysis of the identified initiatives including alternative options, and included tasks to present and secure approval for each imitative.	Detailed business case, Business case summary,
	Implementation Planning: This stage included prioritising, sequencing and planning tasks to develop the final implementation plan that will be handed over to the Project Portfolio team for delivery.	Implementation plan
	Executive Summary Development: This final stage focused on the design and preparation of the executive summary version of the application strategy to the senior management team.	Executive summary
	Sign-off and Handover: This stage includes securing the official approval and sign-off from senior and executive managers. It also focuses on handover and transition of the initiatives designed for the GNI IS strategy and plan to the portfolio management team for delivery.	Full set of Application Strategy engagement documentation including sign-off, Detailed definition of the Initiatives and implementation plan
CSO3	**Prioritisation of Initiatives**: The objective of this stage was to prioritise the identified initiatives based on 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.	Prioritisation of Initiatives
	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.	Initiatives Delivery Roadmap
	Sign-off and Handover: This stage includes securing the official approval and sign-off from senior and executive managers. It also focuses on handover and transition of the initiatives designed for the UÉ ICT strategy and sub-strategies and plan to the portfolio management team for delivery planning and execution.	Full set of ICT Strategy and ICT Sub-Strategy engagement documentation including sign-off

It is also important to note that the handover of the outcomes of this phase was handed over to the delivery teams in all case study organisations. CSO2 and CSO3 defined a set of initiatives to bridge the gap between current and future state, then detailed those initiatives, and conducted value analysis to define the business case.

The level of detail about the initiatives was necessary to complete the business value analysis properly. If a business case did not demonstrate positive or relatively high value, the initiative was still planned, but CSO teams developed alternative approach/options and provided scenario analysis.

When presenting to the executive teams for approval, CSO teams provided all options with respective business value analysis, identified their recommendation, and sought approval. This approach also allowed senior and executive teams to gain a holistic view of the potential options and make informed decisions.

Business Case analysis was used to explore the business value, supported by a combination of quantitative (financial) and qualitative (business) benefits. A good example of this combination can be articulated in the context of regulatory changes, which are normally require significant investment, and does not necessarily always provide immediate financial returns. However, they provide business benefits (i.e.

compliance with the regulation) and mitigate the risk of non-compliance and/or associated penalty charges (if any). The table below outlines the stages and IS artefacts for the "Building the Roadmap" phase that will feed into the strategic alignment process definition.

Table 12 – Building the Roadmap Phase, Stages and IS Artefacts

Building the Roadmap Phase	Stages of "Building the Roadmap" Phase	Key Deliverables Developed (IS Artefacts)
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.	**Detailed Definition of Initiatives**: Following the establishment of the future state of IS capabilities and what they mean to business, the next vital step is to translate this vision into a concrete set of initiatives that form the core of the IS Strategy as well as the path to the strategic alignment. This stage begins by converting the future state definition into initiatives that are required to address the gaps documented. At this stage, the objective is to define and document all relevant details associated with the individual initiatives including detailed descriptions of what each initiative entails, key deliverables, high level solution design and components, estimated effort and plan on a page, indicative costs, assumptions, dependencies, business benefits (qualitative and quantitative), risks, key team members and stakeholders needed to deliver the expected results.	**Initiative Charters Document**: A document that provides further detailed information about the initiatives or initiative groups defined in the previous stage by outlining the following key elements: ▪ Initiative Title and Purpose: A concise title and a clear statement of the initiative's purpose, explaining its role in achieving the desired future state and supporting key strategic dimensions. ▪ Objectives and Scope: A set of objectives that define the initiative's desired outcomes, along with a description of its scope, including the systems, processes, or components it will impact. ▪ Stakeholders: Identification of key stakeholders and initiative owner required to be involved in the initiative. ▪ Deliverables: A list of tangible outputs or results expected from the initiative, such as new systems, upgraded processes, or enhanced capabilities. ▪ Timeline and Milestones: A high level project schedule, key milestones and dependencies between key tasks. ▪ Risks and Mitigation Strategies: A comprehensive risk assessment, identifying potential challenges and their impact on the initiative. ▪ Success Criteria: A set of metrics and key performance indicators (KPIs) used to measure the initiative's success and its contribution to achieving the desired future state. ▪ Assumptions and Constraints: A list of assumptions made during the initiative's planning, along with any constraints that may impact its execution, such as regulatory requirements, resource limitations, or external dependencies.
	Business Value Analysis: This stage is to establish an overall understanding of the total cost and total benefits across the initiatives and relevant categorisations. As some of the initiatives might be dependent on each other, and may have different total cost and benefit values, it is important to look at the business value analysis of the total set of initiatives that can be categorised under unique domains instead of each initiative on its own. Using Key Strategic Dimensions or other sub-category definitions linked to the dimensions is suggested to evaluate the business value of the relevant initiatives. In this analysis, complexity and effort needed to realise the value should also be considered, as these parameters would be needed for the sequencing and scheduling of the initiatives in the next stage. The outcome of this phase is to complete the business value analysis and outline cost-benefit position across all initiatives that will be taken into account in the sequencing and scheduling stage.	**Business Case Report**: This is an essential document for ensuring that initiatives are well-planned, well-executed, and ultimately successful. Without this, it can be difficult to secure buy-in from stakeholders or allocate resources effectively. A well thought out business case template supports an organisation in clearly articulating and justifying the hard and soft benefits, among other aspects, so that initiatives can be prioritised appropriately. The business case definition will make use of our proven data points for gathering the right information needed for this stage of the strategy definition. The data points for the business case should include: ▪ Indicative Benefits Analysis: Covering a wide range of quantitative benefits either in the form of cost savings, reduction, avoidance or deferral, and any revenue generation or increase. This analysis should also outline qualitative benefits including strategic and operational benefits across business, assets, operations and workforce management processes. ▪ Indicative Cost Analysis: Covering a total cost component analysis including hardware, cloud, services, software and any other associated costs to deliver the initiative or group of initiatives.
	Sequencing and Scheduling: This stage is to understand and consolidate the initiative details including resource requirements and dependencies from a planning perspective in order to build an implementation plan that will include the sequence and schedule of the delivery initiatives. This stage heavily relies on the information collated in the Initiative Charter deliverable in relation to the resources and effort required for the delivery of the initiatives.	**Implementation Roadmap**: A document that outlines the high level consolidated delivery plan for the initiatives.
	Executive Summary Development: This stage all about summarising the key points across the completed stages to outline What is going the be delivered, Why is it going to be delivered, and When and How is going to be delivered to enable business teams to progress and achieve their strategic objectives. The development of the deliverable in this stage should consider using a non-IS related language and focus on what changes will drive what type of benefits from business perspective that will enable business teams to achieve their strategic objectives.	**IS Strategy Executive Summary**: A summary document outlining the key insights gained across the phases of the strategy development engagement, overview of the future state and recommended initiatives that summarise the overall IS strategy. Key sections should be aligned with the stages of the IS Strategy development exercise, and include the high level summary of the key deliverables specifically Current State Analysis, Future State Definition, Business Value Analysis and Implementation Roadmap.
	Sign-off and Handover: This stage marks the formal completion of the IS strategy development process and the commencement of recurring strategic alignment checkpoints that will oversee the IS Strategy execution period of the agreed upon IS Strategy and Plan. It involves obtaining final approval and sign-off from key stakeholders while setting the regular check-points to ensure that the progression of the strategy execution enables strategic alignment, and transitioning the all related IS strategy engagement related documentation and execution responsibility to the IS function's existing portfolio management and delivery teams. As part of this stage, strategy execution review sessions are set on a quarterly basis to bring the full IS team and key stakeholders involved in the strategy development exercise together to review the progress against the agreed roadmap, and make necessary adjustments when and if needed. It is important to note that the IS strategy document is a "living document", and regular updates are needed to ensure strategic alignment. These regular check-points are used to monitor the path to strategic alignment while the agreed initiatives are executed to achieve the planned outcomes.	Strategy Review Sessions and Revised IS Strategy documentation updates during the course of the Strategy Execution phase.

8.7.4.2 Transition to Strategy Execution

In the previous phase of the strategy alignment process across the three case study organisations, two main common themes emerged. The first was securing the final approval (sign-off) from the most suitable authorities within the case study organisations, who were directly or indirectly involved from the start of the strategic alignment episode. In CSO1, this authority was the Powering Ahead Programme Board that included all Executive Managers in the organisation. In CSO2, this authority was Business Services Director and Head of IT. In CSO3, this authority was the Board of the organisation for the approval of ICT strategy, and the CIO for the ICT sub-strategies. The form of approval was orchestrated in a review meeting, where the executive summary was presented, challenged and final decisions were made in the form of a sign-off. Correction or updates (if any) were also requested and actioned.

The second and final common theme in the previous phase was the transition from strategy development to strategy execution, in the context of what exactly needs to be done, how it needs to be done, why and when. This transition included the handover of IS artefacts, specifically the strategy content and roadmap related materials, from the strategy team to the relevant teams within the IS function who is responsible for portfolio management, detailed delivery planning, management and governance of new solutions, as well as the management of existing solutions and associated maintenance and support of existing technology landscape as part of the IS operations.

The completion of the handover triggered a different phase – IS Strategy Execution - which covers the delivery of the technology enabled transformation initiatives identified in the IS strategy as well as the maintenance and support of the existing technology landscape related activities. While the end of the previous phase signifies the completion of activities defined for IS strategy development, but the strategic alignment process does not end at this point in time. The end of Building the Roadmap phase triggers the commencement of IS Strategy Execution phase.

8.7.5 Strategy Execution

During the field study, the Researcher gathered high level information about the delivery process as part of the handover stage. Chapter 4 presents three "stories from the field" centred on strategy development episodes, and accordingly provides richer narrative detail for mobilisation, discovery, design and roadmap formation than for the downstream execution period. In Chapters 5 and 6, the 'Strategy Execution' phase is therefore theorised at a higher level of abstraction and is supported by targeted field evidence rather than full execution narratives. Specifically, during fieldwork the study gathered high-level information on execution activities and the associated stage/artefact logic that feeds the theoretical framework, and the lifecycle loop explicitly incorporates review of prior IS strategy execution performance alongside IS operations performance as part of the recurrent alignment cycle. For explanatory purposes, Strategy Execution is represented as an aggregate of three execution domains - IS Delivery, IS Operations, and IS Management and Governance - so that the theoretical framework can account for how alignment is sustained and recalibrated beyond strategy design. This modelling choice does not claim fine-grained empirical coverage of operational execution in Chapter 4; rather, it provides a conceptually necessary closure to the alignment lifecycle and identifies Strategy Execution as an empirically informed domain for further validation and deeper empirical investigation.

The episode outlined for CSO1 was slightly different than CSO2 and CSO3, as the overall responsibility to ensure execution of the agreed strategy stayed within the transformation programme team. Whereas in CSO2, the involvement of the existing governance structures within GNI (including Project Portfolio and PMO) were mandated and handover was completed with set of resources who will ultimately be responsible for executing and delivering on the approved application strategy. In CSO3, the approved strategy and associated documentation on initiatives were handed over to the IT portfolio management team for scheduling (including seeking approval for funding of each of the initiatives based on annual portfolio planning) and delivery.

The Strategy Execution phase also includes the delivery of IS Operations aligned with the approved IS strategy. IS Operations refer to the ongoing management, maintenance, and support of an organisation's IS and technology landscape to ensure

stability, reliability, and performance in alignment with business needs. It encompasses the execution of routine operational tasks, resolution of incidents, monitoring of system health, and implementation of changes to sustain and optimise the IS environment. IS Operations also plays a critical role in enabling strategic alignment by ensuring that the foundational technology services are robust, scalable, and responsive to evolving business and strategic requirements.

The Researcher considers the final phase of the strategic alignment process for this thesis as "Strategy Execution" and defines it as "*This phase of the strategic alignment process comprises parallel running stages and activities that encompass both the detailed planning and operationalisation of IS strategy initiatives (IS Delivery), as well as the execution of IS Operations and IS Management and Governance. 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 (IS Management and Governance) within the organisation to deliver on the strategic intent".*

The diagram below outlines a high level overview of the parallel running stages and activities involved in the strategy execution process.

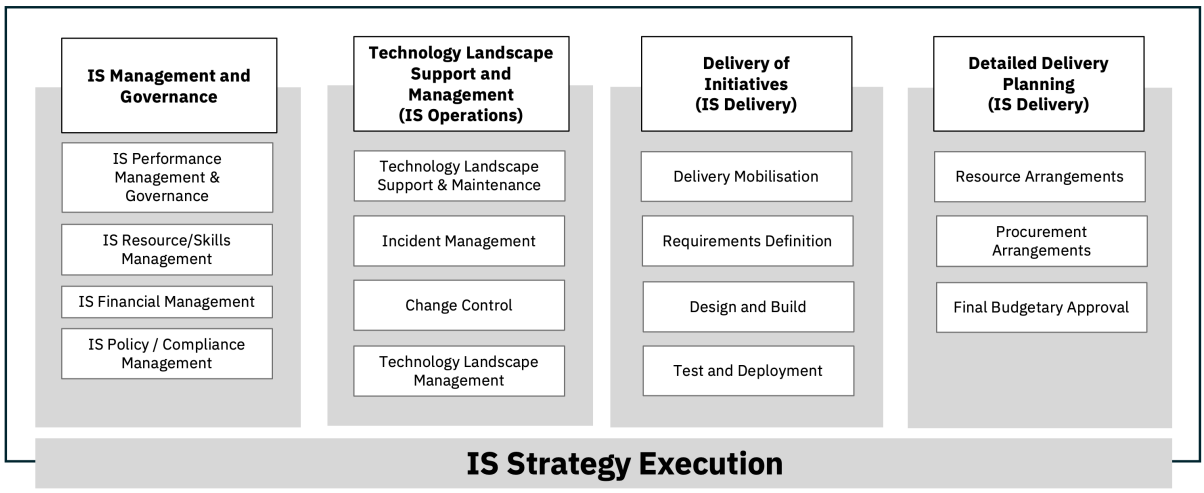


Figure 24 - Strategy Execution Stages and Activities

8.7.5.1 Stages and IS Artefacts of the "Strategy Execution" Phase

During the field study, the Researcher gathered high-level information about the activities that are covered with the Strategy Execution phase. The table below outlines the stages and IS artefacts for the "Strategy Execution" phase that will feed into the theoretical framework.

Table 13 - Strategy Execution Phase, Stages and IS Artefacts

Execution Phase	Stages of "Execution" Phase	Key Deliverables Developed (IS Artefacts)
This phase of the strategic alignment process comprises parallel running stages and activities that encompass both the detailed planning and operationalisation of IS strategy initiatives (IS Delivery), as well as the execution of IS Operations and IS Management and Governance. 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 (IS Management and Governance) within the organisation to deliver on the strategic intent.	**Detailed Delivery Planning**: This domain of activities focus on translating Initiative Charter documents in to detailed project plans and project mobilisation documentation. It includes defining the detailed scope statements, high level requirements, impact of change in existing processes and technology landscape, timelines, resource allocation, training and change management requirements, risk assessments, and governance structures necessary to guide the execution of initiatives. The goal is to ensure project is planned, and ready to commence delivery and has funds allocated to achieve business value based on the revised business case.	Project Initiation Document, Delivery Methodology, Resource and Capacity Plans, Technical Environment Provisions, Risk Registers, Governance Frameworks, Approved Funding.
	Delivery of Initiatives: The planned initiatives are executed through coordinated project and program management within the agreed governance structure. This stage focuses on implementing technology solutions, process improvements, and organizational changes. Success is measured by the timely and efficient achievement of defined outcomes, ensuring that deliverables meet quality standards and delivers on the objectives as outlined in the agreed Initiative Charter documents that anchor the strategic alignment in the execution stages. This stage concludes once the technology solution is deployed for the operational use within the organisation.	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): This domain of activities refer to the ongoing, structured management and support of an organisation's information systems and technology infrastructure to ensure consistent performance, reliability, and alignment with business objectives. It includes essential operational activities such as incident handling, system monitoring, infrastructure upkeep, application lifecycle management, and end-user support. IS Operations serves as a foundational element in the strategic alignment process by maintaining the integrity and scalability of core technology services. It enables continuous improvement, supports operational resilience, and ensures the IS environment remains responsive to current demands and future strategic initiatives, thereby sustaining the long-term value of technology investments.	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: This domain of activities refer to the structured oversight, performance monitoring, and strategic coordination of information systems within an organisation to ensure accountability, transparency, and alignment with business goals. It involves the regular production and review of operational effectiveness, financial stewardship, service quality, IS related regulatory and policy compliance, and resource capability. IS Management and Governance plays a pivotal role in enabling strategic alignment by facilitating informed decision-making, promoting continuous improvement, leading strategy definition and execution and ensuring that IS initiatives are delivered with integrity, efficiency, and responsiveness to organisational priorities.	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

The transition from strategy development phase to strategy execution phase exposes a few critical risks due to a number of potential factors for the strategic alignment process as outlined below.

Table 14 - Risks of Transition from Strategy Development to Strategy Execution

Potential Factors	**Potential Risk**	**Mitigation**
Long time periods between strategy development and strategy execution	Leading to change of team members in IS, and loss of knowledge and required details	The IS Strategy artefacts are critical to capture all detailed information that was developed during the IS strategy development phases. Initiative Charter, Future State Architecture and IS Strategy are the most critical artefacts regarding strategic alignment.
Changes on Key Stakeholders including Executives	Leading to questions around the priorities agreed by the previous stakeholders and executives	Frequent IS Strategy reviews and progress updates to keep the current management team up to date.
Changes in Technology Market Trends	Leading to changes in the agreed Future State and Strategy	Frequent IS Strategy reviews and technology market analysis and monitoring. Continuous engagement with technology vendors.
Changes in Business Strategy and Priorities due to long time periods until execution is completed	Leading to questions around the currency and validity of the IS strategy	Continuous engagement with business stakeholders to be aware of business strategy changes or new priorities. Frequent IS Strategy reviews and progress updates to keep the current management team up to date.

8.8 Appendix 8 | Narrative on Attributes of Executive Engagement and Thematic Analysis

This appendix section provides a detailed narrative and results of the thematic analysis conducted on the engagement data collected during the fieldwork as outlined in Section 4 of this thesis.

8.8.1 Narrative of Attributes of Executive Engagement

All forms of executive engagement are constrained by the availability of Executive Managers and the realities of their attention span - the length of time an individual can concentrate. Based on the episodes analysed across the three network utility organisations, the objective of this section is to provide a narrative of the balancing act between the frequency, scope and depth of executive engagement.

8.8.1.1 Availability and Readiness

Case study organisations' teams managed the time availability constraint by proactively managing their meeting scheduling related tasks. Respective teams in each episode booked required meetings way in advance, and worked closely with the assistants of the Executive Managers to ensure schedule changes are handled to avoid any impact on the planned programme of work across phases and stages of the episodes. One of the Executive Managers in CSO2 drew attention to the importance of "reminders" in the review sessions that happens with executives over a prolonged period of time during the episodes, he added that "*What I would have done at the outset of that strategy is bring to the business executive team, an outline as to what the strategy is going to cover so they can see it basically from the start, covering the scope, intent, timeline, and key deliverables we expect to get, and outline of some of the key decisions we expect to make a call on…In the next review session, we start with reminding them to say when we met you 3-4 months ago, whatever it was, here's what we said. So we did that at the outset before we actually really got stuck into the strategy development… To remind them that we've already got endorsement from the executive team in terms of that's what they*

want to see in the strategy... Here's the key deliverables we committed to and here now is the evidence that these have been have been developed..." (G7-1[5]).

The key success criteria for Executive Manager engagement is to engage them at the right level within the allocated time slot and to conclude the specific discussion point while providing a broader perspective to help all parties in the meeting understand the impact of the conclusion reached on the overall direction. Commenting on the timing and frequency of engagement with the Executive Managers, one of the Senior Managers in CSO1 noted "*...they're really busy. So I'm conscious of their time wisely because if I'm coming to them with, if I was going to them every week, not a lot happens in a week, you know, some weeks it will, but in general, not a lot happens in the week, they will be micromanaging me at that point and I'm a senior manager... balance is needed, it is good when you need it for an urgent matter that you have access to it, and it is good to have that confidence that you are able to do that when needed*" (E5-2).

The Researcher considers the accessibility to Executive Managers as a key enabler for timely, purposeful, outcome-oriented and continuous engagement, however the use of this accessibility needs to be carefully managed and utilised. Senior Managers should be able to know when to reach out, and when to hold back to maintain executive interest and respect their bandwidth.

Engaging with Executive Managers also requires significant preparation, commenting on the lessons learnt to make executive engagement sessions more effective, one of the Senior Managers in CSO1 noted "*It's definitely be prepared so have your homework done so that you can get straight to the point and get the most value from their time. They'll lose interest in you very quickly if you haven't done that. Understanding what's important to them and how to frame whatever it is that you have in those terms, and most importantly having clarity on how they want to be engaged with whether they are*

[5] References the sequence of the quote in this section. This identification number format is used in the thematic analysis that will be outlined in Section 5.2.2.1.3.5. Initial letter of the code represents the network utility (gas, water, electricity), number represents the informant number, and the last digit represents the statement number from the relevant informant included in this section.

open to receive a phone call or a text to connect, whether you need to get time in the diary or whether they are open to being less formal" (E12-3). Similarly in CSO2, one of the Executive Managers reflected on his view when presenting to wider executive audience, and stated that "*It is important for my credibility as an executive to have thought about it as part of the strategy work and be able to respond on the spot that here's how we're going to approach the business case definition, the value realisation, the benefits capture all that good stuff. So that was one angle that came at the sessions*" (G8-4).

The Researcher considers the timing of executive engagement and preparedness of the attendees, including the conciseness and completeness of the materials prepared, to have significant impact on the quality of all executive engagement forms.

While engagement with Executive Managers is critical for the success of the IS strategy development and strategic alignment episodes, it was also challenging to achieve same or similar levels of engagement across all of the Executive Managers within the organisation. CSO1 tackled with this challenge at the programme board level and requested influence and support from the Managing Director of CSO1 to ensure that the expected benefits of the overall programme were embraced across all of the business functions within the organisation. Commenting on establishing and maintaining Executive Manager engagement, one of the Executive Managers in CSO1 stated that "*...initially it probably it took some time for the programme to kind of to show the value that it can bring and therefore initially they weren't too focused on us. As we've got more involved with them, they've got more involved too, but I just think that there's a fair bit more road that left to travel in that regard. I think there could be more 'pull' from their side,* [compared to the 'push' that Programme was driving], *they could have benefitted much more if they did that*" (E9-5). Another interviewee commented on the scope of the executive engagement within the programme, saying that "*I think they start out fairly narrow, what's in it for me? I think like most people, it's like tuned into that. But over time, I do see that they're looking wider and even to say, oh, well, that's happening over there. Now, I wonder how that if that could help me, you know, so, so they are looking a bit broader and I think what has been hugely beneficial...They're kind of trying to see all the pieces and now they are actually starting to see how they will join together in time... They need to see tangible deliverables. I mean, this is an engineering organisation. So that's really, really important... so I suppose the moral of that story is that you have to actually*

nearly meet them where they're at, definitely try to put yourself in their shoes and bring you to that place" (E11-6). On a similar point, one of the Executive Managers in CSO3 noted that "*And sometimes by the time you have done all your technical debt and your regulatory mandatory kind of projects. The time and space for innovation is kind of limited. They don't really want to know what's happening with the IT strategy, but they do want to know what's happening with their demand*" (W7-7).

The Researcher notes that the preparation and framing are critical enablers of successful executive engagement. Executive Managers expect their teams to do their "homework", be prepared and utilise the time effectively in sessions. It is also clear that Executive Managers perceive the importance of being able to frame discussions in terms of strategic value, respond credibly and confidently in strategic discussions with their peers.

8.8.1.2 Paying Attention to the Attention Span

Ocasio (2011, p. 1289) states "attentional vigilance describes the process by which individuals sustain concentration on a particular stimulus (e.g., waiting for a particular signal to occur or change)." and refers to Swets and Kristofferson's work (1970) where it was noted that "attentionally taxing tasks, sustained attention is limited in duration, and an individual's probability to detect the stimuli decreases over time".

The design and management of the executive engagement in governance and discussion forms with careful balance across scope and depth, is how attention span related challenges are mitigated by respective CSO teams in the observed episodes as outlined in Section 4 of this thesis. All of the engagement types in governance and communications forms are skewed towards a wide scope of items covering several topics (e.g. project statuses, risks, issues or investment and strategy document approvals within governance form and high level messages in communications form etc.) while the depth - level of detail on each topic covered - is intentionally kept low. Managing the depth is a critical balancing act in the engagement with Executive Managers.

Table 15 - Wide Scope and Low Depth Engagement Types and Forms

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
CSO2	Project Status Meeting	Governance	Unique	Intra-group	Regular / Recurring	Wide	Low
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
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	Cascading Key Communications	Communications	Existing	Inter-group	Regular / Recurring	Wide	Low

To successfully manage these engagement types within each form, there was a significant level of effort by the respective CSO teams to ensure that session materials in each engagement type are concise and well-documented, enabling reviewers to quickly understand the status information provided or decision options including their impact assessments to make a final decision based on the presented recommendations. Commenting on the balance between scope and depth of engagement with Executive Managers, one of the Senior Managers in CSO1 stated "*Initially, it was very much on only scratching the surface and I felt they were more observers when we started off the programme, the interactions were not deep enough, they were considering that Powering Ahead Programme was kind of over there and it was going to fix things for them and they were like, let us know when are done - that was the way to be honest in my opinion. That's the way I felt it was at the beginning. As things have started to develop, a bit further down the road, they started to get more interested, if you know what I mean, and they wanted to understand it a little bit more. So I was able to go a bit deeper. Whereas like if I went too deep initially, it was like there, you could see their eyes glazing over and they were there, saying 'well, I have to go to another meeting now and when we finish?' you know, there was a little bit of that at the early stages. They were like - come back to me when you have something to tell me - So it takes a while to build it up*" (E11-8). This highlights the time-dependent nature of executive engagement, where consistent communication and demonstrated value are necessary to shift perceptions and foster meaningful involvement.

One of the Executive Managers in CSO3 also touched on the importance of level of detail presented in an executive setting for board approval, noting that "*They [The Board] do get us and like some of the feedback we got post the board session, even in the board session was very good. They all said that when they saw on the board agenda for ICT strategy, and they all kind of went "Oh no, this is going to be boring". But because it was customer centric because it was non-IT language, we got really positive feedback. We kind of met them at their level. We didn't bring them down to the IT level. We went up to their level and that was appreciated. It resonated with them and it made it easier. It gave IT the remit to do all the technical stuff down below that they didn't need to see. If we went in, started talking about cloud first that and AI this, we would have lost them and they would have kind of gone*" (W12-9).

Executive Managers require concrete, clear and concise information and want to avoid any high level or conceptual discussions as well as technical jargon and excessive detail. They lose interest if the conversation is not pitched at the right level to maintain their attention within the time allocated for the sessions they attend. The Researcher considers the importance of "less is more" concept in executive engagement as a guiding principle to increase the efficiency and effectiveness of engagement with executives. Meeting Executive Managers "at their level" to ensure clarity, relevance, and buy-in emphasises the importance of well-framed messages in communications with the Executive Managers.

8.8.1.3 Knowing and Managing the Audience

Socialisation of some of the key recommendations, which would drive wider change in the organisation, was required before the main discussion sessions with the wider stakeholders. An ad hoc informal reach-out approach was utilised in some of the episodes to provide an early heads-up to the relevant executives on the key discussion points planned to be discussed in the upcoming working session meetings. This was a critical part of the stakeholder management approach as it enabled contentious topics highlighted in advance. Commenting on the socialisation effort, one of the Senior Managers in CSO2 noted "*Senior managers were engaging with Executive Managers to provide updates and get their views on specific matters during the analysis phase. Senior*

Managers were acting as messengers. This was helpful to get things moving and avoid last minute surprises when the final draft of the deliverables were issued for review to the Executive Managers" (G5-10). One of the Executive Managers in CSO2 also stated that "*...occasionally depending on what you're presenting and if there's something controversial, or something that you think somebody might not like or be willing to approve, then obviously it makes sense to have those early discussions to warm up and certain aspects of the matter clarified before the wider executive review session*" (G8-11). Commenting on the socialisation effort, one of the Executive Managers in CSO3 noted "*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 motivated around how they can enable IT to become a customer focused brand as opposed to a technically led part of the organisation*" (W11-12).

The Researcher considers stakeholder management as a critical element of executive engagement, as it helps to deepen the existing relationships while also enables to build new relationships among the executive and senior managers. The Researcher also observes the value of ongoing dialogue. The continuous and iterative nature of the engagement reduces resistance.

Managing the depth of the engagement requires clarity on which messages that need to land with the executives in the business. Commenting on the challenge to pre-empt the type of questions that may come in the executive sessions, one of the Executive Managers in CSO2 noted "*...that type of challenge doesn't come as a surprise, so we're prepared for it in relation to the context, and these are the right questions that they should be asking... It's kind of knowing your audience in relation to topics that they're likely to probe or be interested in, and having your homework done in advance to ensure that you are ready to answer to the question is very critical*" (G8-13). This highlights the importance of anticipating executive scrutiny and preparing accordingly. It reflects a proactive approach to engagement, where understanding the interests and concerns of stakeholders is key to effective communication and influence.

When dealing with resolving conflicts or negative feedback from other Executive Managers, one of the Executive Managers in CSO2 noted that "*..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" (G9-14). In dealing with negative feedback or disagreement at the board level sign-off, one of the Executive Managers commented on his general experience dealing with board engagement that "*...most of the time, I will leave it to the process, because the board will work it through themselves and they'll have their different voices. However, in certain cases where the topic is of a sensitive nature or of a certain amount of criticality, I will go to the board through the subcommittee of the board if I have something that I really want to say... the chairperson allows the discussion and understands the logic. That is a huge advantage because it means at the very worst you might have to walk away and say I'll come back and I'll persuade you again...*" (G9-15). He also added that "*It's rare that you'll kind of No, like "get out of here - you haven't thought this through". There is a little bit of influencing when it comes to the chair of the board ensuring that they have all the facts and some of the context and the background before the updates at board level*" (G9-16). Executive Managers with a good understanding of organisational dynamics and power structures within the case study organisations, have the capability to manage risk and increase the likelihood of a favourable outcome.

The Researcher observes that the use of informal, behind-the-scenes engagement to build consensus reduces resistance. It also emphasises that the Executive Managers are good at utilising relational and political dimensions of executive collaboration, where pre-alignment is often more effective than formal persuasion.

Finally, the governance form of executive engagement is driven by metrics that can help to measure the progress. Highlighting the importance of monitoring progress over time, and also delivering on promised objectives, one of the Executive Managers in CSO3 mentioned that "*There are monthly set of dashboards that the team are accountable for and you might be mindful of our balanced scorecard. Level one items through to balanced scorecard, level 2 and Level 3. And we feed into all of them. So clear objective is the first piece. Second piece was my key deliverables in terms of ensuring that it didn't become a*

piece of artwork that sat on a shelf gathering dust. And as I said that the third one was metrics that matter. So metrics that pretty much reflect the progress around the delivery of the actual activity itself... So the checkpoints and cadence and they pretty much look at the supposed deliverables that are landing across" (W11-17). This illustrates how governance-oriented engagement, when supported by meaningful metrics and structured review processes, can drive strategic alignment and execution. It reflects a mature approach to executive engagement that balances vision with accountability, and planning with performance.

8.8.1.4 Deepening the Discussions

All of the executive engagement types in the discussion form are imbalanced towards a narrow scope with limited number of topics (e.g. specific area related processes or technology use, impact on a specific area etc.) while the depth - level of detail on each topic covered - is kept at a very detailed level.

Table 16 - Narrow Scope and High Depth Engagement Types and Forms

CSO	Engagement Type	Form of Engagement	Existing Structure or Unique Structure	Audience	Frequency	Scope	Depth
CSO1	Deep-Dive Sessions	Discussion	Unique	Inter-group	Scheduled	Narrow	High
CSO1	Scheduled Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO1	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High
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
CSO3	Scheduled Working Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO3	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High

To successfully manage these engagement types within discussion form, the right set of stakeholders across business and IT within the organisation were included in the sessions. These sessions had limited number of topics to review and discuss with an objective of ensuring Executive Managers are informed about the topic in detail, so that they can make a contribution to the discussion by means of providing feedback and insights or making decisions after hearing all the advantages and disadvantages of the presented options both from a business and technology perspective. Commenting on the importance of continuous engagement among the stakeholders and Executive Managers within the discussion form, one of the Executive Managers in CSO3 commented that "*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" (W9-18). Similarly, reflecting on the importance of having regular discussion form of Executive Manager engagement and using this dialogue to surface blind spots, validate assumptions, and refine strategic direction, one of the senior managers in CSO2 commented that "*...Some of this was doing research, paper based analysis, but most of it was discussion orientated, with initial stakeholder meetings, business stakeholder meetings we had where we came in and presented and said well, this is the future of the gas industry based on our own analysis. Have we articulated the risk profile correctly? Have we missed things? How do we break down the optics and that's a very big thing, but just in terms of the risks, challenges, opportunities that really involve going to individual application owners, business function owners and discussing in detail what these things actually mean*" (G3-19).

Managing the depth is a critical balancing act in the engagement with Executive Managers and, it is a team effort. It requires insights and feedback from other senior managers before the discussion session planned with the Executive Manager. Commenting on this balancing act, one of the Senior Managers in CSO1 noted "*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. And I think that's probably how we manage the depth of the conversations*" and added "*I guess obviously with executives, what's specifically within their functional remit, they'll have more interest in. But then we will often tend to lean on them more for things that are outside of their remit, because that's where we need them to influence other members of the executive team*" (E12-20). Exploring the influence circle of the engaged executives beyond their immediate organisational remit becomes a possibility when the engagement progresses at the right level of depth where the Executive Manager starts to feel fully on-board with

the discussion point and the proposed way forward. This reflects the networked nature of executive influence, where engagement is not just about informing but also about mobilising support across organisational boundaries.

One of the Executive Managers in CSO3 reflected on his business focus led approach in discussions by stating that "*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?*" (W11-21). Executive Managers play a critical role in anchoring discussions in business value, ensuring that technical or operational initiatives are always tied back to customer and stakeholder impact.

8.8.2 Thematic Analysis of the Narrative on the Attributes of Executive Engagement

Thematic analysis was conducted following a systematic process beginning with familiarisation through close reading of the data to understand its content and context. Initial codes were generated based on the semantic meaning of key statements and observations. These codes were then collated into broader categories, which were iteratively refined to develop coherent themes. The themes were reviewed and validated by ensuring consistency with the original data and assessing whether they accurately captured the underlying patterns and insights relevant to the research question. The following sub-sections outline the attributes of executive engagement.

8.8.2.1 Accessibility and Strategic Use of Executive Time

One of the key themes emerged is the *Accessibility and Strategic Use of Executive Manager Time*. The case study organisations' teams managed the time availability constraint by proactively managing their meeting scheduling related tasks. Respective teams in each episode booked required meetings in advance, and worked closely with the assistants of the Executive Managers to ensure schedule changes are handled to

avoid any impact on the planned programme of work across phases and stages of the episodes.

The Researcher found that the accessibility to Executive Managers as a key enabler for timely, purposeful, outcome-oriented, effective and continuous engagement. Once established, this access must be strategically managed to avoid overuse and maintain the interest of the Executive Manager. Managing the depth is a critical balancing act in the engagement with Executive Managers and, it is a team effort. It requires insights and feedback from other senior managers before the discussion session planned with the Executive Manager. The members of the strategy alignment episode who needs to maintain the interest of the Executive Managers in the episode must learn to balance outreach and know when to engage and when to hold back to maintain executive interest and respect their bandwidth.

The key success criteria for Executive Manager engagement is to engage them at the right level within the allocated time slot and to conclude the specific discussion point while providing a broader perspective to help all parties in the meeting understand the impact of the conclusion reached on the overall direction.

Executive Managers with a good understanding of organisational dynamics and power structures within the case study organisations, have the capability to manage risk and increase the likelihood of a favourable outcome.

8.8.2.2 Preparation and Framing

Effective executive engagement is not merely a function of participation, it is an orchestration of deliberate timing, strategic preparation, and thoughtful framing. In the context of strategic alignment episodes across the three case study organisations, the Researcher identifies *Preparation and Framing* as one of the critical enablers of successful engagement with Executive Managers. These elements shape the quality, relevance, and impact of interactions, ensuring that executive time is used purposefully and productively. The Researcher considers the timing of executive engagement and preparedness of the attendees, including the conciseness and completeness of the materials prepared, to have significant impact on the quality of all executive engagement forms.

Executive Managers operate under significant time constraints and cognitive demands, making it essential that the information presented to them is clear, concise, and concrete. Executive Managers' attention span is a finite resource. Executives consistently demonstrate a preference for straightforward communication that avoids unnecessary complexity. High-level conceptual discussions, technical jargon, or excessive detail can quickly erode attention and diminish the effectiveness of engagement. Given the limited time allocated for strategic sessions, it is imperative that content is tailored to meet executives "at their level", ensuring that the material is both accessible and strategically meaningful.

The Researcher emphasises the "less is more" principle as a guiding approach to executive engagement. This principle advocates for streamlined messaging that prioritises relevance over volume, enabling executives to quickly grasp the core issues, assess implications, and make informed decisions. Well-framed messages that align with executive priorities not only enhance understanding but also foster buy-in and strategic alignment.

Engaging with Executive Managers requires significant preparation and it reflects a proactive approach to engagement, where anticipating executive scrutiny becomes a standard practice. Understanding the interests and concerns of stakeholders allows teams to tailor their communications, pre-empt potential objections, and guide discussions toward constructive outcomes. This approach not only improves the quality of engagement but also strengthens trust and credibility among executive stakeholders.

Preparation is not limited to logistical readiness; it encompasses a strategic understanding of executive expectations. Executives expect their teams to do their "homework" and to arrive informed, focused, and ready to engage in high-value dialogue. This expectation underscores the importance of framing discussions in terms of strategic value, enabling Executive Managers to respond credibly and confidently in conversations with their peers. When materials and messages are aligned with strategic priorities, they resonate more deeply and facilitate decision-making.

8.8.2.3 Networked Engagement

Executive engagement within the strategic alignment process is not confined to formal meetings or isolated decision-making. It is deeply embedded in the networked nature of executive influence, where engagement extends beyond individual remits and becomes a mechanism for mobilising support across organisational boundaries.

As the engagement deepens, particularly when discussions reach the right level of strategic and operational detail, Executive Managers begin to feel fully aligned with the direction and decisions being proposed. This sense of ownership enables them to activate their influence networks, leveraging relationships and authority to build consensus and drive alignment across functions. In this way, executive engagement becomes not just a channel for informing, but a strategic tool for enabling organisational change.

While executive engagement is critical to the success of strategic alignment episodes, achieving consistent levels of involvement across all Executive Managers proved challenging. However, when engagement reaches sufficient depth, executives become fully aligned with the discussion and proposed direction—enabling them to activate their influence networks beyond their immediate remit. This reflects the networked nature of executive influence, where engagement helps mobilise support across organisational boundaries. As a result, strong engagement with a few key executives can serve as a bridge to involve others who are less engaged.

Executives with a strong understanding of organisational dynamics and power structures are particularly effective in this regard. Their ability to navigate internal politics, manage risk, and influence outcomes positions them as key enablers of strategic execution. When supported by meaningful metrics and structured review processes, governance-oriented engagement provides a framework for accountability and performance, balancing strategic vision with operational discipline.

The Researcher identifies stakeholder management as a critical element of executive engagement. It serves both to deepen existing relationships and to cultivate new ones among senior leaders. This is especially evident in the use of informal, behind-the-scenes engagement, where early socialisation of ideas and pre-alignment efforts

help reduce resistance and foster smoother decision-making. These interactions often occur outside formal governance structures but are instrumental in shaping outcomes.

Socialisation of some of the key recommendations, which would drive wider change in the organisation, was required before the main discussion sessions with the wider stakeholders. An ad hoc informal reach-out approach was utilised in some of the episodes to provide an early heads-up to the relevant executives on the key discussion points planned to be discussed in the upcoming working session meetings. This was a critical part of the stakeholder management approach as it enabled contentious topics highlighted in advance. It also emphasises that the Executive Managers are good at utilising relational and political dimensions of executive collaboration, where pre-alignment is often more effective than formal persuasion.

8.8.2.4 Business Value Driven Dialogue

A defining characteristic of effective executive engagement within strategic alignment episodes is the consistent anchoring of discussions in business value. Executive Managers play a pivotal role in ensuring that technical and operational initiatives are not pursued in isolation but are instead firmly tied to customer and stakeholder impact. This orientation toward value reinforces the strategic relevance of IS initiatives and ensures alignment with broader organisational goals.

The dialogue facilitated through executive engagement—particularly in the discussion form—is instrumental in surfacing blind spots, validating assumptions, and refining strategic direction. These interactions go beyond transactional updates; they serve as a platform for critical reflection and strategic recalibration. When Executive Managers are engaged in regular, well-framed discussions, they are better positioned to challenge assumptions, ask the right questions, and guide initiatives toward outcomes that matter.

Executive Managers play a critical role in anchoring discussions in business value, ensuring that technical or operational initiatives are always tied back to customer and stakeholder impact. This value-driven approach also ensures that technical and operational efforts are aligned with strategic priorities. Rather than focusing solely on functionality or delivery timelines, Executive Managers emphasise the importance of

understanding the end-user experience, stakeholder needs, and long-term business impact. Their involvement helps teams maintain a clear line of sight between execution and strategic intent.

The Researcher observes that this form of engagement is not only about informing executives but also about enabling them to shape and influence the strategic narrative. By framing discussions around business value, teams can foster deeper executive involvement, enhance decision-making quality, and strengthen organisational alignment.

8.9 Appendix 9 | Strategic Alignment Process Framework – Phases, Stages and IS Artefacts

This section includes the full description of the Strategic Alignment Process Framework and represents one of the key theoretical contribution made by this research.

8.9.1 Overview

The static processual view of the strategic alignment process framework is outlined below.

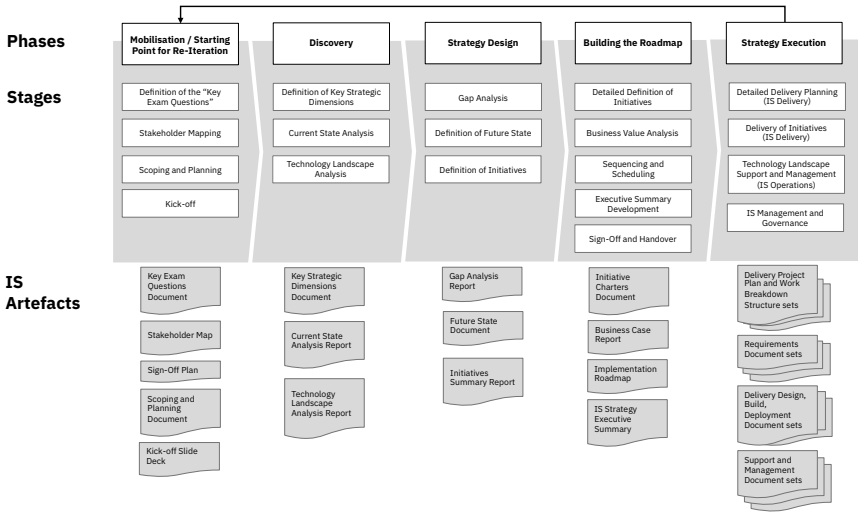


Figure 25 - Strategic Alignment Process Framework – Static View

The description of each of the phases are included below.

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 dynamic processual view of the Strategic Alignment Process Framework is provided below.

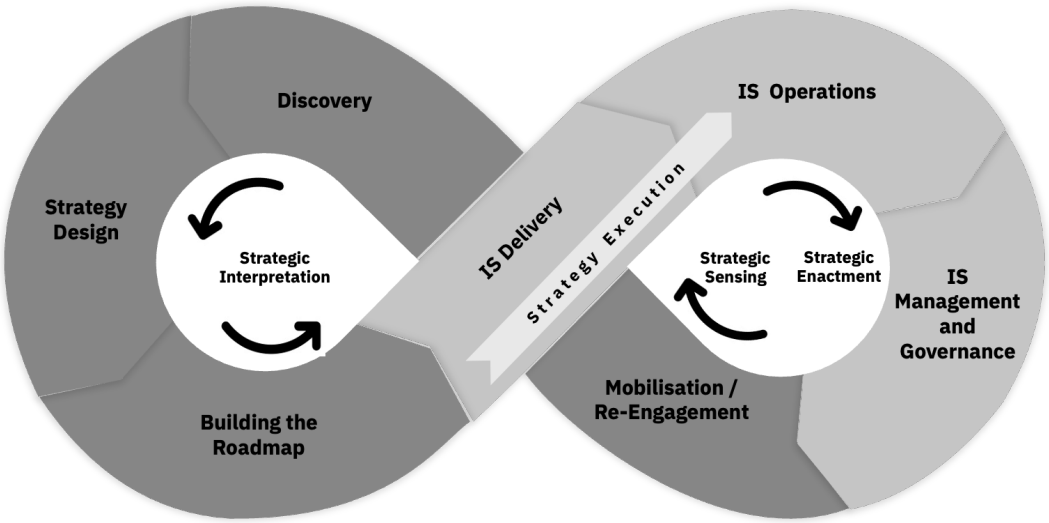


Figure 26 - Strategic Alignment Process Framework – Dynamic View

The remainder of this section will include the following phases of the framework and will include detailed definition of stages and associated IS artefacts.

- Mobilisation
- Discovery
- Strategy Design
- Building the Roadmap
- Strategy Execution (Including IS Delivery, IS Operations, and IS Management and Governance)

8.9.2 Mobilisation

The table below outlines the phases, stages and IS artefacts for the “Mobilisation” phase.

Table 17 - Mobilisation Phase, Stages and IS Artefacts

Mobilisation Phase	Stages of “Mobilisation” Phase	Key Deliverables Developed (IS Artefacts)
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.	**Definition of the “Key Exam Questions”**: This stage involves articulating the reasons for the strategic alignment process commencement and defining the scope of the engagement with a set of clear and concise objectives. This requires detailed discussion between the business and IS executives responsible for leading the engagement.	**Key Exam Questions Document:** A document that articulates the reasons for the strategy development activity and defines the objectives of the engagement. The set of clearly defined objectives for the strategy development engagement and key questions that are expected to be answered by the IS strategy engagement at the end of the engagement. It is important to note that the key exam questions are clear and granular enough not only to define the type of analysis that needs to be conducted but also to identify the strategy teams members, required skills, and stakeholders needed to be involved during the strategy development engagement.
	Stakeholder Mapping: This stage involves identifying all relevant stakeholders and their expectations and availability, as well as developing a plan to manage their expectations throughout the strategy development engagement. This includes analysing the stakeholders' interests, needs, and concerns, and developing a communication plan to engage with them.	**Stakeholder Map**: A table that identifies all relevant stakeholders and their expectations and availability, as well as a plan to manage their expectations throughout the strategy development engagement.
	Scoping and Planning: This stage involves defining the phases and stages of the strategy development exercise, as well as the type of analysis that needs to be conducted. It also includes defining the scope boundaries, crystallizing the scope, and identifying the team members and skills needed to conduct the work. Additionally, this stage involves defining the deliverables and timelines for the engagement, as well as checking the availability of all team members and reaching an agreement to utilise resources across IS and business functions. The review and approval of each phase is completed aligned with the overall plan and approach that has been applied in the IS Strategy development exercise based on the Sign-Off plan that is developed in this stage.	**Scoping and Planning Document**: A document that defines the phases and stages of the IS strategy development exercise, as well as the type of analysis that needs to be conducted to address the “Key Exam Questions” and the list of deliverables to be developed as part of the IS strategy development exercise. It also includes the scope boundaries, and timelines for the engagement. This document should also include a detailed plan that outlines the tasks, list of required analysis aligned with the “Key Exam Questions”, timelines, and resources required to complete the strategy development engagement. **Sign-Off Plan**: A table that lists the key stakeholders who will need to review, provide feedback and officially sign-off the planned deliverables across the phases and stages of the IS Strategy Development.
	Kick-off: This stage involves a formal meeting and/or written communication to key stakeholders that will be consulted during the strategy development engagement. The Kick-Off meeting should be attended by all core team members, and the scope and plan to deliver the engagement should be clearly explained and discussed. This stage can also appear in the internal newsletters or intra-company communication channels to inform and create an awareness that the organization has mobilised a team to conduct an IS strategy and plan engagement. Additionally, this stage involves setting expectations for communication and collaboration throughout the engagement.	**Kick-off Slide Deck**: A slide deck containing the summary of scoping and planning document and stakeholder map.

8.9.3 Discovery

The table below outlines the stages and IS artefacts for the “Discovery” phase.

Table 18 - Discovery Phase, Stages and IS Artefacts

Discovery Phase	Stages of “Discovery” Phase	Key Deliverables Developed (IS Artefacts)
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.	**Key Strategic Dimensions**: This stage involves a thorough review of key business strategy documents to gain a deep understanding of the organization's business strategy, objectives, and ambitions. The primary objective of this stage is to identify a set of key strategic dimensions that will guide the IS strategy development. To achieve this objective, a series of sessions may be conducted with business stakeholders to establish a better understanding of the business strategy and objectives. In cases where the business strategy is unclear, recently introduced, or complex and complicated, the IS core team may consider facilitating "visioning" sessions with wider business and IS stakeholders across all levels to progress this stage.	**Key Strategic Dimensions Document**: A brief business context document that outlines the key strategic pillars or dimensions that will guide the IS strategy development. Key strategic dimensions can be documented as heading and supporting brief description that summarises the components or pillars of the business strategy.
	Current State Analysis: This stage is the “discovery” of business oriented content on the current performance of IS services provided to the organisation, current challenges, gaps, improvement areas need to be fully understood by the core team in the Strategy Design phase. The scope of this understanding should cover the meaning and practicality of strategic objectives and underlying business processes that needs to be supported/enabled by IS, major business challenges, pain points, business ambitions, and feedback on existing technology solutions and services currently in place. Some of the key analysis (relevant to the “Key Exam Questions”) that can support this stage are included below; ▪ **Voice of the Customer:** Series of meetings with business stakeholders to capture the Voice of the Customer allow participants to provide deeper insights on their challenges, objectives and expectations from the IS organisation aligned with their business objectives. In addition to these sessions, IS user experience surveys can also be considered a way to capture insights. ▪ **Total Cost of Ownership:** Detailed cost analysis of the IT landscape (including hardware, software and services) with a view of total cost of ownership (from requirements gathering, design, delivery, support, warranty) analysis can be considered if related to the objectives of the strategy development. ▪ **Operational Performance Analysis:** Several types of maturity (IS’s ability or performance to support business, performance of IS Operations) analysis can be included to outline the performance of IS services across business operations and their linkage to the key strategic dimensions and business objectives. Business participants in this analysis can score the IS performance (as high, medium, low) related to their detailed business process or functional areas, and provide insights on what high performance means to them to glean actionable insights from this analysis for IS to improve the ways of working and provided IS capabilities to the business. ▪ **Role of IS in the Organisation:** This analysis enables IS team to assess how they are perceived within the business functions across the organisation. This can be done by IS team members or business team members by asking two simple questions (i.e. How IS is perceived by the business? And how does the business want to perceive IS?) on an appropriate scale spectrum where IS working as a reactive, active or enabling levels to add value to business units. The results of this analysis can be used to set target ambitions for IS to achieve in the next strategy execution period.	**Current State Analysis Report**: A report that outlines the current state of the organization's business-oriented content reflecting the relevant areas of scope linked to the “Key Exam Questions”. The overall document should provide a detailed understanding of the current practices, how well or bad the IS services received by business, what functions or processes are well supported, and areas of problems, challenges, gaps should be clearly outlined. This document holds the most critical information that will shape the strategy, as project team will have the full visibility and understanding of the key strategic dimensions (as documented earlier) and with this document, current performance of IS within the organisation, and current requirements of business from the IS should be documented. This document will be the key baseline for the Gap Analysis stage and will influence the strategy design related activities in the next phase.
	Technology Landscape Analysis: This stage is the “discovery” of technology oriented content that needs to be at least considered by the core project team in the Strategy Design phase. The discovery stage for technology trends aim to establish an understanding of the possible technology solutions that can be considered in the next phase of the strategy development process while establishing a clear understanding of the existing technology landscape and its limitations and challenges. Some of the key analysis (relevant to the “Key Exam Questions”) that can support this stage are included below; ▪ **Technical Debt Analysis:** Technical debt analysis aims to outline current version of key software products and their product life cycle analysis, and to identify the major technology trends and current state of the technology available in the market. ▪ **Technology Architecture Analysis:** Utilising an Enterprise Architecture view by outlining key components of the enterprise architecture and conducting technical maturity assessments can be used to articulate the technology landscape. The use of a reference architecture model can help to identify any gaps or duplications across the landscape. ▪ **Enabling Technologies Analysis:** Review of alternative technology solutions to address the defined current performance challenges should be considered. ▪ **Market Analysis:** What other organisations doing is another aspect of the technology trend analysis that provides learnings from the other organisations and different type of technologies. ▪ **Review and Definition of Principles:** Review of existing and definition of required additional technical principles and guidelines are needed to govern the future IS related decisions.	**Technology Landscape Analysis Report**: A report that outlines the current state of the organization's technical-oriented content reflecting the relevant areas of scope linked to the “Key Exam Questions”. The overall document should provide a detailed understanding of the current technologies in use, areas of problems, challenges, and gaps should be clearly outlined. This document holds the most critical technical information that will shape the strategy. This document will be the key baseline for the Gap Analysis stage and will influence the strategy design related activities in the next phase.

8.9.4 Strategy Design

The table below outlines the stages and IS artefacts for the “Strategy Design” phase.

Table 19 - Strategy Design Phase, Stages and IS Artefacts

Strategy Design Phase	Stages of “Strategy Design” Phase	Key Deliverables Developed (IS Artefacts)
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.	**Gap Analysis**: This stage, which consolidates the insights gained during the Current State Analysis and Technology Landscape Analysis stages, aims to pinpoint discrepancies between the existing IS capabilities and the requirements needed to effectively support the Key Strategic Dimensions. This stage synthesises findings from the Discovery phase, highlighting gaps and improvement areas where current IS services fall short or are entirely absent. Key objectives of the Gap Analysis stage include: ▪ **Identifying Performance Shortfalls:** Pinpoint instances where current IS services underperform, negatively impacting business operations or fail to meet strategic objectives. ▪ **Revealing Service Gaps:** Uncover situations where no IS services exist to address critical business needs, hindering progress toward strategic goals. ▪ **Documenting Challenges and Impediments:** Thoroughly document technical and functional challenges and obstacles in detail that impede IS from fulfilling its role in driving the organization's Key Strategic Dimensions.	**Gap Analysis Report**: A report that clearly documents all the identified gaps and improvement areas across current state analysis and technology landscape analysis. This report consolidates all relevant findings related to the “Key Exam Questions”. The objective of this report is to outline “What” needs to be done to support the Key Strategic Dimensions and enable business to achieve its objectives at a granular level. Gap analysis report focuses on delta between the current and desired state of technology landscape, performance and perception of the IS services, the report should outline the list of business areas and their requirements that are not currently or fully supported by IS, but critical for business to achieve their strategic objectives.
	Definition of Future State: The Future State Definition is a critical stage of the Strategy Design phase, providing a detailed and actionable blueprint for the optimal IS capabilities and performance metrics required to support the organization's business strategy and objectives. By consolidating the findings in the previous stage, Future State Definition stage outlines the desired state (where none of the identified gaps exist) for the IS services and capabilities and what those means for the business. This stage of the engagement should engage both business and technical teams to design the snapshot of the future of IS in the organisation that will have improved or new IS capabilities, enabling better alignment with business objectives and fostering a more robust IS strategy that will enable strategic alignment. Future State Definition is formulated by considering several key factors that were analysed in the previous phase. By crafting a clear and comprehensive Desired Future State Definition is the most critical activity to establish a solid foundation for the IS strategy document, ensuring that it addresses the most pressing needs, aligns with business objectives, and leverages the power of technology to drive success.	**Future State Document:** A detailed report that brings insights from the earlier phase, and also addresses the outcome of the Gap Analysis in an holistic manner and covers the following key sections for completeness while addressing the answers to the “Key Exam Questions”. ▪ IS Ambitions: Building upon the IS ambitions identified during the Discovery phase, this section outlines the specific IS capabilities and performance metrics needed to achieve each ambition. ▪ Emerging Technologies: Incorporating insights from the Technology Landscape Analysis, this definition accounts for cutting-edge technologies that could significantly enhance IS capabilities and better align them with business needs. This may include advancements in areas such as artificial intelligence, robotics process automation, machine learning, cloud computing, or cybersecurity as well as the upgrade, renewal or replacement of current technologies in place to address the technical debt identified in the existing technology landscape. ▪ Industry Best Practices: Drawing on the findings from the Current State Analysis and external research, this section identifies and integrates industry-leading practices that demonstrate proven success in similar organizations. Adopting these best practices can help improve IS efficiency, effectiveness, and overall alignment with business objectives. ▪ Alignment with Key Strategic Dimensions: This section explicitly links the desired future state to the organization's Key Strategic Dimensions, demonstrating how improved IS capabilities will directly contribute to the achievement of these strategic goals ensuring that IS capabilities are robust enough to support growth, innovation, and adaptation to changing market conditions. ▪ Architectural View: The Architectural View is an essential component of the overall IS Strategy, offering a visual representation of the desired future state of IS capabilities across systems of record, systems of engagement and systems of insights. This section complements the written description provided in the Desired Future State Definition and serves to enhance stakeholder understanding and engagement by providing an overview of the technology landscape, detailed layered model with a view of business functions and data domains including integration points. ▪ Performance Metrics: To facilitate monitoring and evaluation, the desired future state definition includes specific, measurable performance metrics for each IS capability. These metrics enable tracking of progress, identification of areas requiring improvement, and assessment of the overall impact of the IS strategy on business operations.
	Definition of List of Initiatives: Following the establishment of the future state of IS capabilities and what they mean to business, the next vital step is to translate this vision into a concrete set of initiatives that form the core of the IS Strategy as well as the path to the strategic alignment. This stage is completed by converting the future state definition into initiatives that are required to build the future state while addressing the gaps documented. The primary objective of this stage is to define and document the brief description, objective and business and/or technical justification for each initiative identified and also categorise the initiatives under key strategic dimensions to ensure alignment and further analysis in the next stage.	**Initiatives Summary Report**: A summary document that includes the full list of initiatives with brief description, objective, and business and/or technical justification. Initiatives can be categorised under different headings or groups to ease the review and help the reader in mapping the initiatives to the future state.

8.9.5 Building the Roadmap

The table below outlines the stages and IS artefacts for the "Building the Roadmap" phase.

Table 20 - Building the Roadmap Phase, Stages and IS Artefacts

Building the Roadmap Phase	Stages of "Building the Roadmap" Phase	Key Deliverables Developed (IS Artefacts)
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.	**Detailed Definition of Initiatives**: Following the establishment of the future state of IS capabilities and what they mean to business, the next vital step is to translate this vision into a concrete set of initiatives that form the core of the IS Strategy as well as the path to the strategic alignment. This stage begins by converting the future state definition into initiatives that are required to address the gaps documented. At this stage, the objective is to define and document all relevant details associated with the individual initiatives including detailed descriptions of what each initiative entails, key deliverables, high level solution design and components, estimated effort and plan on a page, indicative costs, assumptions, dependencies, business benefits (qualitative and quantitative), risks, key team members and stakeholders needed to deliver the expected results.	**Initiative Charters Document**: A document that provides further detailed information about the initiatives or initiative groups defined in the previous stage by outlining the following key elements: ▪ Initiative Title and Purpose: A concise title and a clear statement of the initiative's purpose, explaining its role in achieving the desired future state and supporting key strategic dimensions. ▪ Objectives and Scope: A set of objectives that define the initiative's desired outcomes, along with a description of its scope, including the systems, processes, or components it will impact. ▪ Stakeholders: Identification of key stakeholders and initiative owner required to be involved in the initiative. ▪ Deliverables: A list of tangible outputs or results expected from the initiative, such as new systems, upgraded processes, or enhanced capabilities. ▪ Timeline and Milestones: A high level project schedule, key milestones and dependencies between key tasks. ▪ Risks and Mitigation Strategies: A comprehensive risk assessment, identifying potential challenges and their impact on the initiative. ▪ Success Criteria: A set of metrics and key performance indicators (KPIs) used to measure the initiative's success and its contribution to achieving the desired future state. ▪ Assumptions and Constraints: A list of assumptions made during the initiative's planning, along with any constraints that may impact its execution, such as regulatory requirements, resource limitations, or external dependencies.
	Business Value Analysis: This stage is to establish an overall understanding of the total cost and total benefits across the initiatives and relevant categorisations. As some of the initiatives might be dependent on each other, and may have different total cost and benefit values, it is important to look at the business value analysis of the total set of initiatives that can be categorised under unique domains instead of each initiative on its own. Using Key Strategic Dimensions or other sub-category definitions linked to the dimensions is suggested to evaluate the business value of the relevant initiatives. In this analysis, complexity and effort needed to realise the value should also be considered, as these parameters would be needed for the sequencing and scheduling of the initiatives in the next stage. The outcome of this phase is to complete the business value analysis and outline cost-benefit position across all initiatives that will be taken into account in the sequencing and scheduling stage.	**Business Case Report**: This is an essential document for ensuring that initiatives are well-planned, well-executed, and ultimately successful. Without this, it can be difficult to secure buy-in from stakeholders or allocate resources effectively. A well thought out business case template supports an organisation in clearly articulating and justifying the hard and soft benefits, among other aspects, so that initiatives can be prioritised appropriately. The business case definition will make use of our proven data points for gathering the right information needed for this stage of the strategy definition. The data points for the business case should include: ▪ Indicative Benefits Analysis: Covering a wide range of quantitative benefits either in the form of cost savings, reduction, avoidance or deferral, and any revenue generation or increase. This analysis should also outline qualitative benefits including strategic and operational benefits across business, assets, operations and workforce management processes. ▪ Indicative Cost Analysis: Covering a total cost component analysis including hardware, cloud, services, software and any other associated costs to deliver the initiative or group of initiatives.
	Sequencing and Scheduling: This stage is to understand and consolidate the initiative details including resource requirements and dependencies from a planning perspective in order to build an implementation plan that will include the sequence and schedule of the delivery initiatives. This stage heavily relies on the information collated in the Initiative Charter deliverable in relation to the resources and effort required for the delivery of the initiatives.	**Implementation Roadmap**: A document that outlines the high level consolidated delivery plan for the initiatives.
	Executive Summary Development: This stage all about summarising the key points across the completed stages to outline What is going the be delivered, Why is it going to be delivered, and When and How is going to be delivered to enable business teams to progress and achieve their strategic objectives. The development of the deliverable in this stage should consider using a non-IS related language and focus on what changes will drive what type of benefits from business perspective that will enable business teams to achieve their strategic objectives.	**IS Strategy Executive Summary**: A summary document outlining the key insights gained across the phases of the strategy development engagement, overview of the future state and recommended initiatives that summarise the overall IS strategy. Key sections should be aligned with the stages of the IS Strategy development exercise, and include the high level summary of the key deliverables specifically Current State Analysis, Future State Definition, Business Value Analysis and Implementation Roadmap.
	Sign-off and Handover: This stage marks the formal completion of the IS strategy development process and the commencement of recurring strategic alignment checkpoints that will oversee the IS Strategy execution period of the agreed upon IS Strategy and Plan. It involves obtaining final approval and sign-off from key stakeholders while setting the regular check-points to ensure that the progression of the strategy execution enables strategic alignment, and transitioning the all related IS strategy engagement related documentation and execution responsibility to the IS function's existing portfolio management and delivery teams. As part of this stage, strategy execution review sessions are set on a quarterly basis to bring the full IS team and key stakeholders involved in the strategy development exercise together to review the progress against the agreed roadmap, and make necessary adjustments when and if needed. It is important to note that the IS strategy document is a "living document", and regular updates are needed to ensure strategic alignment. These regular check-points are used to monitor the path to strategic alignment while the agreed initiatives are executed to achieve the planned outcomes.	Strategy Review Sessions and Revised IS Strategy documentation updates during the course of the Strategy Execution phase.

8.9.6 Strategy Execution

The table below outlines the stages and IS artefacts for the “Strategy Execution” phase.

Table 21 - Strategy Execution Phase, Stages and IS Artefacts

Execution Phase	Stages of “Execution” Phase	Key Deliverables Developed (IS Artefacts)
This phase of the strategic alignment process comprises parallel running stages and activities that encompass both the detailed planning and operationalisation of IS strategy initiatives (IS Delivery), as well as the execution of IS Operations and IS Management and Governance. 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 (IS Management and Governance) within the organisation to deliver on the strategic intent.	**Detailed Delivery Planning (IS Delivery)**: This domain of activities focus on translating Initiative Charter documents in to detailed project plans and project mobilisation documentation. It includes defining the detailed scope statements, high level requirements, impact of change in existing processes and technology landscape, timelines, resource allocation, training and change management requirements, risk assessments, and governance structures necessary to guide the execution of initiatives. The goal is to ensure project is planned, and ready to commence delivery and has funds allocated to achieve business value based on the revised business case.	Project Initiation Document, Delivery Methodology, Resource and Capacity Plans, Technical Environment Provisions, Risk Registers, Governance Frameworks, Approved Funding.
	Delivery of Initiatives (IS Delivery): The planned initiatives are executed through coordinated project and program management within the agreed governance structure. This stage focuses on implementing technology solutions, process improvements, and organizational changes. Success is measured by the timely and efficient achievement of defined outcomes, ensuring that deliverables meet quality standards and delivers on the objectives as outlined in the agreed Initiative Charter documents that anchor the strategic alignment in the execution stages. This stage concludes once the technology solution is deployed for the operational use within the organisation.	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): This domain of activities refer to the ongoing, structured management and support of an organisation’s information systems and technology infrastructure to ensure consistent performance, reliability, and alignment with business objectives. It includes essential operational activities such as incident handling, system monitoring, infrastructure upkeep, application lifecycle management, and end-user support. IS Operations serves as a foundational element in the strategic alignment process by maintaining the integrity and scalability of core technology services. It enables continuous improvement, supports operational resilience, and ensures the IS environment remains responsive to current demands and future strategic initiatives, thereby sustaining the long-term value of technology investments.	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: This domain of activities refer to the structured oversight, performance monitoring, and strategic coordination of information systems within an organisation to ensure accountability, transparency, and alignment with business goals. It involves the regular production and review of operational effectiveness, financial stewardship, service quality, IS related regulatory and policy compliance, and resource capability. IS Management and Governance plays a pivotal role in enabling strategic alignment by facilitating informed decision-making, promoting continuous improvement, leading strategy definition and execution and ensuring that IS initiatives are delivered with integrity, efficiency, and responsiveness to organisational priorities.	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

8.10 Appendix 10 | Thematic Analysis of Forms and Frequency of Executive Engagement

The wide range of engagement types were categorised based on a thematic analysis to bring the detailed engagement data into a higher level of groupings (i.e. forms of engagement) to proceed with the theory development.

The Researcher identifies three main forms of executive engagement including Governance, Discussion and Communications as observed in the case study organisations. These reflect the categorisation of executive engagement types outlined in the aforementioned table above. A common theme across all forms of executive engagement is their regularity. Once the form of executive engagement is established with a variety of engagement types, they tend to be set as recurring meetings to ensure the regularity of the engagement either on a weekly, bi-weekly or monthly basis during the course of the episode.

8.10.1.1 Governance Form

The governance-related executive engagement types are structured on a regular basis, with a recurring schedule (e.g., weekly, bi-weekly, or monthly) and a standing agenda. Within this form, strategic alignment episode has its own unique governance routine, as well as taking part in the existing governance forms already established in the organisation. This is a critical point: aligning the IS strategy development focused stages and strategic alignment process with existing governance structures, while also introducing unique governance mechanisms for the episode, is essential for establishing social and operational alignment from the outset. The Researcher considers this as one of the demarcation points between the IS strategy development related stages and the entirety of the strategic alignment process, ensuring continuity of strategic alignment focus within the organisational structures.

Table 22 - Governance Form of 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
CSO2	Project Status Meeting	Governance	Unique	Intra-group	Regular / Recurring	Wide	Low
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

This form of executive engagement focuses on the governance and management of project progress, including review of planned activities, risks, and issues, as well as the status of project financials, approval of deliverables, and completion of project phases and stages. The audience for this form of engagement may include Executive Managers directly involved in the strategic alignment episode (intra-group) or a broader audience (inter-group) covering all functions within the organisation.

The governance form of executive engagement is established specifically at the beginning of the strategic alignment episode, and remains in place until the end of the episode or transferred into an existing governance structure within the case study organisations to maintain the continuity.

8.10.1.2 Discussion Form

The second form of executive engagement type is “discussion”, and it is focused on a particular domain, issue or topic relevant to the strategic alignment episode.

Table 23 - Discussion Form of Engagement Types

CSO	Engagement Type	Form of Engagement	Existing Structure or Unique Structure	Audience	Frequency	Scope	Depth
CSO1	Mobilisation and Visioning Sessions	Discussion	Unique	Inter-group	One-Off	Wide	Low
CSO1	Deep-Dive Sessions	Discussion	Unique	Inter-group	Scheduled	Narrow	High
CSO1	Scheduled Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO1	Regular One-to-One Sessions	Discussion	Unique	One to One	Regular / Recurring	Wide	Low
CSO1	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High
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
CSO3	Scheduled Working Sessions	Discussion	Unique	Intra-group	Scheduled	Narrow	High
CSO3	Informal Reach-Outs	Discussion	Unique	One to One	Scheduled	Narrow	High

Any engagement types with senior or Executive Managers require advance scheduling to ensure their attendance and participation due to their busy schedules. All discussion sessions were formally scheduled, and respective teams requested a follow-up or continuation session where needed to regularise the executive engagement. All of the executive engagement types in the discussion form are imbalanced towards a narrow scope with limited number of topics (e.g. specific area related processes or technology use, impact on a specific area etc.) while the depth - level of detail on each topic covered - is kept at a very detailed level.

The discussion form of executive engagement emerges from the governance form to ensure that the right set of stakeholders are involved in the episode. As part of governance sessions, Executive Managers ask the project team whether the right set of key stakeholders are involved in the discussions for relevant phases or stages of the strategic alignment episode. The discussion form of executive engagement is oriented towards the components of the strategic alignment episode, alternative options and their impact on the overall business, and enables decision-making and direction setting. One of the key challenges at the early stage of the strategic alignment episode in CSO2 was to articulate the scope of strategy work and to identify the key stakeholders. One of the senior managers shared his initial perspective when he started to work on the project by stating "*...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. He managed whom we talk to as project team in order to get insights, and this approach kind of successful for him, as he knew who in IT or business teams would give more strategic insights and be less focused on operational matters*" (G3). One of the Executive Managers in CSO3 reflected on his observations by stating that "*So like, not all the problems are in IT. Right. You know, it might feel like that to us. But you know, there are other areas of business that have problems too. So understanding that and having enterprise architecture and business partnering out there, understanding what those people are doing, understanding what makes their jobs and lives easier and what technologies are coming down the road that may help them*" (W9).

8.10.1.3 Communications Form

The third and final form of executive engagement types is “communications”. This form of engagement requires respective teams to provide a draft text containing the key messages they want Executive Managers to communicate from their own email address or company intranet account (e.g. executive blog).

Table 24 - Communications Form of Engagement Types

CSO	Engagement Type	Form of Engagement	Existing Structure or Unique Structure	Audience	Frequency	Scope	Depth
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	Cascading Key Communications	Communications	Existing	Inter-group	Regular / Recurring	Wide	Low

The communications form of engagement, by its nature, is continuous and aims to create awareness and keep the audience informed with progress or the results impacting the business. This form of executive engagement is the most effective way of attract attention and maintaining momentum across the organisation. This form of engagement is also achieved via existing company-wide communication channels such as newsletters, emails or intranet updates by featuring the progress in the IS strategy development and strategic alignment episode. Executive Managers are also asked to add their personal view and insights into the provided draft text to make it more personal and authentic. Cascading key communications through Executive Managers helps to ensure that the recipients pay required attention to the key messages shared. Reflecting on the communications form of executive engagement, one of the Executive Managers in CSO3 stated that “*So we are peppering the business with comms related to the strategy, but not specifically saying this is our strategy ABC, because that's a bit boring for some people. This is how we engage with the business and communicate it to them in a different form, light hearted way potentially or you know more easily digestible way. And I think that's our way of embedding the strategy with the business. It's kind of like in pieces*” (W13).

8.11 Appendix 11 | Code Book

This code book presents the unique open codes identified during the analysis of the engagement data in relation to the inputs and outputs outlined in Chapter 4. Each code captures a distinct concept, action, or attribute observed in the data, reflecting the diverse ways in which alignment work and executive engagement manifest in practice. The accompanying descriptions provide a brief explanation of each code's meaning and relevance, supporting transparency, consistency, and rigour in the qualitative analysis. This code book serves as a reference for interpreting the coding process and ensures that the analytical approach remains grounded in the empirical realities of strategic alignment and Executive Manager engagement.

Table 25 - Code Book

OPEN CODE	DESCRIPTION
Accountability Enablement	Facilitating clear assignment of responsibility and ownership for alignment activities and outcomes.
Actionable Planning	Developing concrete, implementable plans that translate strategy into operational steps.
Ambition Setting	Establishing aspirational goals to drive strategic progress and motivate teams.
Annual Funding Cycle Constraints	Recognising the impact of yearly budget cycles on the timing and feasibility of strategic initiatives.
Assurance	Providing confidence and reassurance regarding the direction and execution of strategy.
Asking Questions	Encouraging inquiry and clarification to ensure shared understanding and challenge assumptions.
Best Practice Modelling	Identifying and applying proven methods or benchmarks to improve alignment processes.
Board Confidence	Building trust and credibility with the board through transparent and effective engagement.
Breadth and Depth	Ensuring both comprehensive coverage and detailed analysis in strategic discussions and decisions.
Bring Strategy to Life	Making strategic plans tangible and actionable for stakeholders at all levels.
Budget Justification	Providing evidence and rationale for funding requests to support strategic initiatives.
Business Buy-in	Securing commitment and support from business stakeholders for IS strategy and alignment efforts.
Business-Led Strategy	Ensuring that strategic direction is driven by business needs and priorities.
Business Value	Demonstrating the tangible benefits and value delivered by IS initiatives to the organisation.
Capability Enhancement	Strengthening organisational skills, resources, or systems to support strategic objectives.
Capability Roadmap	Outlining the planned development of organisational capabilities over time.
Capacity vs Demand Management	Balancing available resources with strategic requirements and project demands.
Change Advocacy	Actively promoting and supporting change initiatives to achieve alignment.
Change Sponsorship & Advocacy	Providing visible leadership and support for change, ensuring alignment with strategic goals.
Clarity of Purpose	Articulating a clear rationale and objectives for alignment activities.
Collaboration	Working jointly across functions and levels to achieve shared alignment outcomes.
Collaboration in Problem Solving	Engaging multiple stakeholders in addressing challenges and finding solutions.
Communication Facilitation	Enabling effective information flow and dialogue among stakeholders.

Confidence Building	Enhancing trust and belief in the alignment process and its outcomes.
Confidence in Implementation	Ensuring stakeholders feel capable and prepared to execute strategic plans.
Conflict Mediation	Resolving disagreements and fostering consensus among stakeholders.
Confirmation and Checks	Verifying information and decisions to ensure accuracy and alignment.
Constructive Challenge	Providing critical feedback and questioning to strengthen strategic thinking and decisions.
Constructive Feedback	Offering helpful, actionable input to improve alignment activities and outcomes.
Continuous Alignment Validation	Regularly reviewing and confirming that alignment is maintained as conditions evolve.
Cost Sensitivity & Budget Constraints	Recognising and managing financial limitations in strategic planning and execution.
Credibility Building	Establishing trustworthiness and authority in alignment leadership and communication.
Critical Challenge	Rigorously testing assumptions and proposals to ensure robust decision-making.
Cross-Functional Empathy	Understanding and valuing perspectives from different organisational functions.
Cross-Functional Influence	Leveraging relationships and authority across departments to drive alignment.
Cross-Functional Learning	Sharing knowledge and insights across teams to enhance collective capability.
Cross-Team Insight	Gaining understanding from multiple teams to inform alignment decisions.
Data Management Needs	Identifying and addressing requirements for effective data handling in alignment work.
Decision Influence	Shaping or guiding strategic decisions through engagement and advocacy.
Decision Support	Providing information, analysis, or tools to aid strategic decision-making.
Delivery Planning & Sub-Strategies	Developing detailed plans and supporting strategies for effective execution.
Document Review	Critically assessing documents to ensure clarity, accuracy, and alignment.
EA Collaboration	Working with enterprise architecture teams to ensure alignment of systems and strategy.
Efficiency Gains	Achieving improvements in productivity or resource utilisation through alignment.
Efficiency Identification	Recognising opportunities to streamline processes and reduce waste.
End-User Impact Focus	Considering the effects of alignment decisions on those who use the systems or services.
Enterprise Perspective	Maintaining a holistic, organisation-wide view in alignment activities.
Escalation & Accessibility	Ensuring issues can be raised to senior levels and that leaders are approachable.
Escalation to Senior Leadership	Bringing critical issues or decisions to the attention of top executives.
Evidence-Based Persuasion	Using data and analysis to support arguments and influence alignment decisions.
Execution Tracking	Monitoring progress and outcomes of alignment initiatives.
Executive Approval & Sign-Off	Securing formal endorsement from senior leaders for key decisions.
Executive Confidence	Building assurance among executives regarding alignment direction and outcomes.
Executive Role Modelling	Demonstrating desired behaviours and commitment to alignment by senior leaders.
Executive Sponsorship	Gaining visible, ongoing support from top management for alignment initiatives.
Executive Support	Receiving active backing and resources from senior leaders.
Expectation Management	Setting and communicating realistic goals and timelines for alignment work.
Expertise Utilisation	Leveraging specialist knowledge and skills to inform alignment activities.
External Credibility	Building trust and reputation with external stakeholders through alignment success.
Feasibility Testing	Assessing whether proposed strategies or initiatives are practical and achievable.
Financial Accountability	Ensuring responsible management and reporting of financial resources.
Flexible Engagement	Adapting involvement and participation to suit changing needs and contexts.
Formal Approval	Obtaining official sanction for alignment plans and actions.
Forward-Looking Focus	Anticipating future trends and needs in alignment planning.
Funding Alignment	Ensuring financial resources are matched to strategic priorities.
Funding Constraints	Recognising and managing limitations in available funding.
Funding Justification	Providing clear rationale for investment in alignment initiatives.
Funding Leverage	Maximising the impact of available funds to support alignment.
Future Planning	Preparing for long-term needs and opportunities in alignment.

Goal Alignment	Ensuring that objectives across the organisation are consistent and mutually supportive.
Good Enough Principle	Accepting practical solutions that meet requirements without over-engineering.
Governance Participation	Engaging in oversight and decision-making structures to guide alignment.
Granular Understanding	Developing detailed knowledge of alignment issues and processes.
Growth & Resource Expansion	Supporting organisational development and increased capacity through alignment.
Guidance & Mentorship	Providing advice and support to develop alignment capabilities.
Healthy Challenge & Education	Encouraging critical thinking and learning through constructive questioning.
Historical Context Sharing	Bringing past experiences and lessons to inform current alignment work.
Hiring Foresight	Anticipating future talent needs to support alignment.
Idea Generation	Creating new concepts or approaches to enhance alignment.
Idea Sharing	Exchanging insights and suggestions to improve alignment outcomes.
Incremental Growth	Pursuing gradual, stepwise progress in alignment initiatives.
Informal Lobbying & Relationship Building	Using informal networks to influence alignment decisions and outcomes.
Initiative Planning	Structuring and organising new projects to support alignment.
Insight Sharing	Communicating valuable knowledge and perspectives to inform alignment.
Internal Credibility	Building trust and respect within the organisation for alignment leadership.
IT Benchmarking	Comparing IT practices and performance against industry standards.
Learning Opportunity	Using alignment activities as a chance to develop new skills and knowledge.
Long-Term Planning	Setting strategic direction with a focus on sustained alignment over time.
Maintaining Strategy as Living Document	Keeping strategic plans current and adaptable as circumstances change.
Managerial Agency	Empowering managers to take initiative and make decisions in alignment work.
Managerial Development	Enhancing the skills and capabilities of managers involved in alignment.
Message Clarity	Communicating strategy and alignment objectives in a clear and understandable way.
Mutual Understanding	Achieving shared perspectives and agreement among stakeholders.
Objective Alignment	Ensuring that specific goals are consistent with overall strategic direction.
Objective Setting	Defining clear, measurable targets for alignment activities.
Operational Control	Maintaining oversight and authority over alignment implementation.
Operational Exposure	Providing opportunities for stakeholders to understand operational realities.
Operational Insight	Gaining practical understanding of how alignment affects day-to-day operations.
Operational Reality Check	Assessing alignment plans against actual operational conditions.
Opportunity Validation	Confirming that identified opportunities are viable and aligned with strategy.
Option Analysis	Evaluating alternative courses of action for alignment.
Organisational Leadership	Demonstrating effective leadership in guiding alignment efforts.
Organisational Politics Navigation	Managing internal dynamics and power structures to achieve alignment.
Pace & Phasing of Delivery	Planning the timing and sequencing of alignment initiatives.
Peer Benchmarking	Comparing alignment practices with those of similar organisations.
Performance Benchmarking	Measuring alignment outcomes against established standards.
Personal Growth	Developing individual capabilities through involvement in alignment work.
Personal Learning	Gaining new knowledge and skills from alignment activities.
Personal Learning from Executives	Learning directly from the experience and insights of senior leaders.
Personal Touch	Adding individual attention or customisation to alignment communications.
Portfolio Coherence	Ensuring that all projects and initiatives are consistent with strategic objectives.
Positive Feedback	Providing affirming responses to encourage continued alignment efforts.
Positive Sentiment	Fostering a constructive and optimistic attitude towards alignment.
Pragmatic Strategy	Adopting practical, realistic approaches to strategic alignment.
Pre-Engagement Preparation	Undertaking groundwork to ensure effective participation in alignment activities.

Principle-Based Decisions	Making choices guided by core values and strategic principles.
Prioritisation Decision-Making	Determining the order and importance of alignment initiatives.
Process Improvement	Enhancing procedures and workflows to better support alignment.
Proactive Engagement	Taking initiative to involve stakeholders and address alignment needs early.
Professional Development	Supporting career growth through alignment-related learning and experience.
Programme Benefits	Articulating the advantages and value delivered by alignment programmes.
Project Accountability	Ensuring responsibility for the delivery and outcomes of alignment projects.
Project Prioritisation	Ranking projects based on their strategic importance and alignment.
Realistic Expectations	Setting achievable goals and timelines for alignment work.
Reality vs Ambition Alignment	Balancing aspirational goals with practical constraints in alignment planning.
Resource Access & Allocation	Securing and distributing resources to support alignment activities.
Resource Advocacy	Championing the need for adequate resources for alignment.
Resource Leverage	Maximising the impact of available resources in alignment efforts.
Resource Access and Enablement	Facilitating access to necessary resources and empowering their effective use.
Risk Awareness	Recognising and addressing potential risks in alignment initiatives.
Risk Framing	Defining and communicating risks in a way that supports informed decision-making.
Risk Identification & Mitigation	Detecting and addressing threats to successful alignment.
Role Model	Demonstrating exemplary behaviour to encourage alignment among others.
ROI & Business Case Focus	Emphasising return on investment and robust business justification for alignment.
Safe Space for Dialogue	Creating an environment where stakeholders can share views openly.
Scalable Technology	Ensuring that technology solutions can grow with organisational needs.
Sector Benchmarking	Comparing alignment practices with those in the wider industry sector.
Sense Check	Validating assumptions and plans through critical review.
Senior-Level Insight Sharing	Communicating strategic perspectives from senior leaders to inform alignment.
Shared Ownership	Encouraging collective responsibility for alignment outcomes.
Silo Reduction	Breaking down barriers between departments to enhance alignment.
Simplification and Clarity	Making alignment processes and communications straightforward and easy to understand.
Soundboarding	Testing ideas and strategies with others to gain feedback.
Stakeholder Education	Informing and developing stakeholders' understanding of alignment issues.
Stakeholder Engagement & Buy-In	Actively involving stakeholders and securing their commitment to alignment.
Stakeholder Input	Gathering perspectives and feedback from relevant parties.
Storytelling & Tailored Messaging	Using narrative and customised communication to convey alignment messages.
Strategic Adaptability	Adjusting strategies in response to changing circumstances.
Strategic Autonomy	Allowing flexibility and independence in strategic decision-making.
Strategic Challenge	Testing and questioning strategic assumptions and directions.
Strategic Communication	Effectively conveying alignment objectives and progress.
Strategic Contribution	Making meaningful inputs to the development and execution of strategy.
Strategic Direction & Alignment	Setting and maintaining a clear course for alignment with organisational goals.
Strategic Execution	Implementing alignment strategies effectively.
Strategic Foresight	Anticipating future trends and preparing alignment strategies accordingly.
Strategic Gap	Identifying and addressing areas where alignment is lacking.
Strategic Guidance	Providing direction and advice to support alignment efforts.
Strategic Justification	Offering rationale for alignment decisions and initiatives.
Strategic Legitimacy	Establishing the credibility and authority of alignment activities.
Strategic Lens	Viewing issues and decisions through a strategic perspective.
Strategic Milestones	Setting key targets and checkpoints for alignment progress.
Strategic Overview	Maintaining a broad understanding of alignment activities and context.

Strategic Ownership	Taking responsibility for alignment outcomes at a strategic level.
Strategic Planning	Developing long-term plans to guide alignment activities.
Strategic Prioritisation	Determining the most important alignment initiatives.
Strategic Reassurance	Providing confidence in the alignment process and its direction.
Strategic Reinforcement	Strengthening commitment to alignment through ongoing support.
Strategic Review	Periodically assessing alignment strategies and outcomes.
Strategic Socialisation	Sharing and embedding alignment objectives across the organisation.
Strategic Updates	Communicating progress and changes in alignment activities.
Strategy Execution	Carrying out alignment plans and initiatives.
Strategy Formulation Transparency	Ensuring openness in the development of alignment strategies.
Strategy Review	Evaluating the effectiveness of alignment strategies.
Stretch Goals	Setting ambitious targets to drive alignment performance.
Sub-Strategy Development	Creating supporting strategies to address specific alignment needs.
Support Mechanisms	Providing resources and structures to assist alignment efforts.
Team Alignment	Ensuring all team members are working towards shared alignment goals.
Team Cohesion	Building unity and collaboration within teams engaged in alignment.
Team Communication	Facilitating effective information sharing within alignment teams.
Team Development	Enhancing the skills and capabilities of alignment teams.
Team Direction	Providing clear guidance and leadership to alignment teams.
Team Empowerment	Enabling teams to take initiative and make decisions in alignment work.
Team Wellbeing	Supporting the health and morale of teams involved in alignment.
Technical Exposure	Providing opportunities to engage with technical aspects of alignment.
Technology Foresight	Anticipating technological trends and their impact on alignment.
Technology Guidance	Offering advice and direction on technology choices for alignment.
Technology Planning	Developing plans for technology adoption and integration in alignment.
Technology Road mapping	Outlining the future development of technology to support alignment.
Testing	Assessing alignment strategies and initiatives for effectiveness.
Total Cost of Ownership Analysis	Evaluating the full financial impact of alignment initiatives.
Transformation Ownership	Taking responsibility for leading and managing change in alignment.
Trend Awareness	Staying informed about developments that may affect alignment.
Trust Building	Fostering trust among stakeholders to support alignment.
Unified Direction	Ensuring all parts of the organisation are moving towards common alignment goals.
Upward Communication	Facilitating the flow of information from operational levels to senior management.
Upward Messaging & Translation	Conveying operational insights and needs to higher-level decision-makers.
Value Assessment & Realism	Critically evaluating the potential benefits and feasibility of alignment initiatives.
Value Contribution	Demonstrating the positive impact of alignment activities on organisational success.
Vision Clarity	Clearly articulating the desired future state and alignment objectives.
Visual & Presentation Quality	Ensuring alignment communications are clear, engaging, and professional.
Yearly Planning	Setting annual plans

8.12 Appendix 12 | Complete Coding Process Mapping Table

This Appendix includes the coding database, in a table format, developed during this research. The table is presented in two parts. The first part includes the full traceability for the “Strategic Empowerment Cycle” theoretical integration code that was defined as a core category of the selective codes identified. The second part of the table provides the same level of coding traceability for the “Strategic Enablement Cycle” theoretical integration code.

Part 1 - Strategic Empowerment Cycle

Table 26 - Strategic Empowerment Cycle - Coding Database

CSO	QUOTE	OPEN CODE	AXIAL CODE	SELECTIVE 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	Insights and Learnings	Adaptive Strategic Engagement
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	Business Results	Strategic Delivery and Value Realisation
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	Business Results	Strategic Delivery and Value Realisation

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	Insights and Learnings	Adaptive Strategic Engagement
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, Organisational leadership, Positive sentiment	Confidence and Credibility	Strategic Authority and Confidence
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	Open Dialogue	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Confidence and Credibility	Strategic Authority and 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	Team communication,	Business Results	Strategic Delivery and

	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).	Confidence in implementation		Value Realisation
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).	Programme benefits, Executive sponsorship	Business Results	Strategic Delivery and Value Realisation
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	Business Results	Strategic Delivery and Value Realisation
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	Confidence and Credibility	Adaptive Strategic Engagement
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Insights and Learnings	Adaptive Strategic Engagement

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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Confidence and Credibility	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence

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	Confidence and Credibility	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Insights and Learnings	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Open Dialogue	Adaptive Strategic Engagement
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	Open Dialogue	Adaptive Strategic Engagement
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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence

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	Open Dialogue	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Confidence and Credibility	Strategic Authority and Confidence
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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Buy-In and Awareness	Strategic Delivery and Value Realisation

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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Insights and Learnings	Adaptive Strategic Engagement
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	Confidence and Credibility	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Confidence and Credibility	Strategic Authority and Confidence

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	Confidence and Credibility	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Open Dialogue	Adaptive Strategic Engagement
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	Financial Coverage	Strategic Delivery and Value Realisation
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	Financial Coverage	Strategic Delivery and Value Realisation

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	Insights and Learnings	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Insights and Learnings	Adaptive Strategic Engagement
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	Confidence and Credibility	Strategic Authority and Confidence
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	Validation, Legitimacy and Empowerment	Strategic Authority and Confidence
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	Business Results	Strategic Delivery and Value Realisation

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	Business Results	Strategic Delivery and Value Realisation
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	Business Results	Strategic Delivery and Value Realisation
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	Financial Coverage	Strategic Delivery and Value Realisation
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	Open Dialogue	Adaptive Strategic Engagement
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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Buy-In and Awareness	Strategic Delivery and Value Realisation

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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Buy-In and Awareness	Strategic Delivery and Value Realisation
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	Financial Coverage	Strategic Delivery and Value Realisation
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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Clarity on Agreed Direction and Priorities	Strategic Authority and Confidence
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	Option analysis, Stakeholder education	Insights and Learnings	Adaptive Strategic Engagement

	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).			
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	Insights and Learnings	Adaptive Strategic Engagement
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	Financial Coverage	Strategic Delivery and Value Realisation

Part 2 - Strategic Enablement Cycle

Table 27 - Strategic Enablement Cycle - Coding Database

CSO	QUOTE	OPEN CODE	AXIAL CODE	SELECTIVE 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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Conflict Resolution	Strategic Direction, Governance and Conflict Resolution
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 organisation will have a very good feel for. What the politics of the organisation 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	Professional Development	Capability and Culture Building
CSO1	“They're just steering us as to where they want the investment to go” (E6).	Strategic Direction & Alignment; Governance Participation	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution

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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
CSO1	“... when we're trying to change, say for instance, when we're trying to change the way the programme 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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Professional Development	Capability and Culture Building
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Commercial Scrutiny and Value Justification	Financial Alignment

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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Narrative Framing	Strategic Communication and Framing
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	Narrative Framing	Strategic Communication and Framing
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Simplicity and Clarity	Strategic Communication and Framing
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	Simplicity and Clarity	Strategic Communication and Framing
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	Enthusiasm, Passion and Motivation	Capability and Culture Building

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	Enthusiasm, Passion and Motivation	Capability and Culture Building
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	Scope Management	Strategic Refinement and Boundary Setting
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	Scope Management	Strategic Refinement and Boundary Setting
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Scope Management	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and	Strategic Refinement and Boundary Setting

			Constructive Feedback	
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting

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	Simplicity and Clarity	Strategic Communication and Framing
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	Simplicity and Clarity	Strategic Communication and Framing
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Scope Management	Strategic Refinement and Boundary Setting

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Professional Development	Capability and Culture Building

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	Professional Development	Capability and Culture Building
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	Professional Development	Capability and Culture Building
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Conflict Resolution	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Conflict Resolution	Strategic Direction, Governance and Conflict Resolution
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	Conflict Resolution	Strategic Direction, Governance and Conflict Resolution
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	Conflict Resolution	Strategic Direction, Governance and

				Conflict Resolution
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Simplicity and Clarity	Strategic Communication and Framing
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	Simplicity and Clarity	Strategic Communication and Framing
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	Simplicity and Clarity	Strategic Communication and Framing
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	Simplicity and Clarity	Strategic Communication and Framing
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	Narrative Framing	Strategic Communication and Framing

		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	Narrative Framing	Strategic Communication and Framing
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	Narrative Framing	Strategic Communication and Framing
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	Narrative Framing	Strategic Communication and Framing
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	Enthusiasm, Passion and Motivation	Capability and Culture Building
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	Enthusiasm, Passion and Motivation	Capability and Culture Building

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	Enthusiasm, Passion and Motivation	Capability and Culture Building
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	Enthusiasm, Passion and Motivation	Capability and Culture Building
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	Scope Management	Strategic Refinement and Boundary Setting
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Scope Management	Strategic Refinement and Boundary Setting
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	Scope Management	Strategic Refinement and Boundary Setting

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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Simplicity and Clarity	Strategic Communication and Framing
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting

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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting

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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
CSO3	“The wider Board had that ambition to try and understand where the blockers along the way” (W11).	Risk Identification & Mitigation	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and 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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution

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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Commercial Scrutiny and Value Justification	Financial Alignment

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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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; Unmapped	Commercial Scrutiny and Value Justification	Financial Alignment

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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Professional Development	Capability and Culture Building
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting

		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	Simplicity and Clarity	Strategic Communication and Framing
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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; Unmapped	Commercial Scrutiny and Value Justification	Financial Alignment
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	Commercial Scrutiny and Value Justification	Financial Alignment

		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	Commercial Scrutiny and Value Justification	Financial Alignment
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
CSO1	"We're in the media today because of this, we have to sort that out first" (E5).	Government & Regulatory Priority Influence	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution

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 programmes. 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	Validation, Decision and Approval	Strategic Direction, Governance and Conflict Resolution
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Challenge, Reality Check, Critique and Constructive Feedback	Strategic Refinement and Boundary Setting
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	Direction Setting and Prioritisation	Strategic Direction, Governance and Conflict Resolution

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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence
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	Influence, Guidance and Stakeholder Management	Stakeholder Management and Influence

8.13 Appendix 13 | Contrasting Philosophical Stances

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). 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 below.

Critical Realism posits that reality exists independently of human perceptions, but our understanding of it is always mediated by social, cultural, and linguistic factors (Bhaskar, 2008; Sayer, 1992). In IS research, critical realism is often used to uncover the underlying mechanisms and structures that generate observable phenomena, advocating for explanatory case study designs that combine qualitative and quantitative evidence (Mingers, 2004; Wynn and Williams, 2012; Easton, 2010;). A critical realist approach would prompt this study to seek causal accounts of strategic alignment, focusing on how structural properties and contextual contingencies interact over time.

However, the primary aim of this research is to illuminate the lived, situated sense-making of Executive Managers and the co-construction of meaning around alignment process, rather than to theorise deeper causal structures. Adopting a critical realist stance would shift the analytic focus toward mechanistic explanation and away from participants' interpretive accounts and would likely imply a broader mixed-methods or measurement-seeking design than is warranted in this research (Wynn and Williams, 2012).

Pragmatism prioritises inquiry oriented to consequences, asking "what works" to address a problem, and embraces methodological pluralism (Morgan, 2007; Johnson and Onwuegbuzie, 2004; Tashakkori and Teddlie, 2010). In IS research, pragmatism frequently underpins action research and design science, valuing usefulness in action and the production of prescriptive artefacts or solutions for stakeholders (Goldkuhl, 2012). It also legitimises combining methods to answer practice-centred questions.

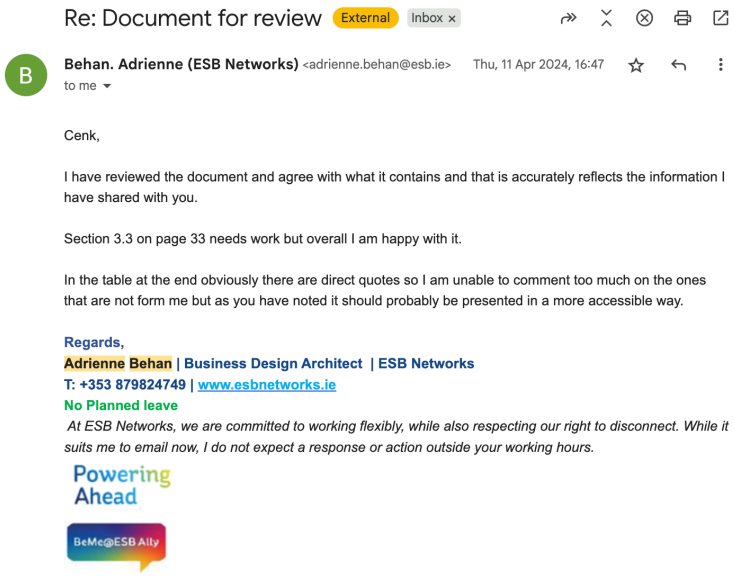
This research is not interventionist or design-oriented; and it does not seek to optimise a solution across cases. Rather, it aims to interpret how Executive Managers experience and enact strategic alignment over time within their organisations. A pragmatic frame might tilt the emphasis toward instrumental outcomes, potentially diluting the depth of interpretive analysis and the frame for context-bound meaning that an interpretivist/constructivist stance requires (Goldkuhl, 2012; Morgan, 2014).

Both Critical Realism and Pragmatism are credible paradigms for IS strategy research and could be fruitfully mobilised in future programmes of work: critical realism to theorise mechanisms that sustain or erode alignment, and pragmatism to guide interventions, design artefacts, or mixed-methods evaluations in collaboration with practitioners (Easton, 2010; Wynn and Williams, 2012; Morgan, 2007; Tashakkori and Teddlie, 2010). However, this thesis is purposefully configured around a relativist ontology and interpretivist / constructivist epistemology to privilege meaning, sense-making, and temporality in Executive Managers' engagement with strategic alignment.

8.14 Appendix 14 | Confirmation of Case Study Write-Ups

This section includes the copy of the email confirmations provided by the key point of contact from each case study organisation, confirming their approval of the case study narrative and corroborating that the information presented is accurate and reflects what they shared.

Case Study Organisation 1 – Electricity Supply Board



Re: Document for review External Inbox ×

Behan. Adrienne (ESB Networks) <adrienne.behan@esb.ie> Thu, 11 Apr 2024, 16:47

to me

Cenk,

I have reviewed the document and agree with what it contains and that is accurately reflects the information I have shared with you.

Section 3.3 on page 33 needs work but overall I am happy with it.

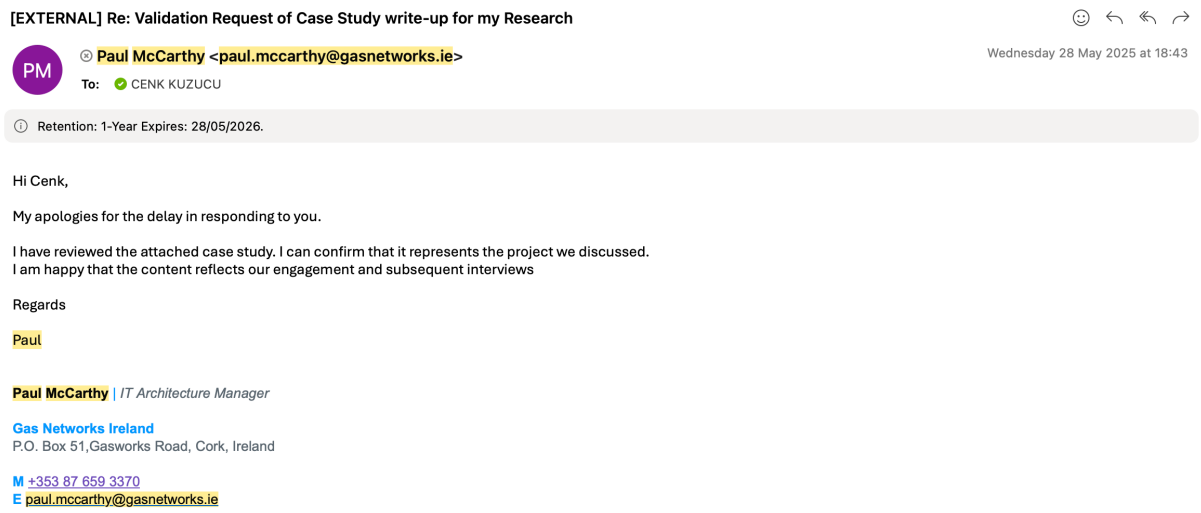
In the table at the end obviously there are direct quotes so I am unable to comment too much on the ones that are not form me but as you have noted it should probably be presented in a more accessible way.

Regards,
Adrienne Behan | Business Design Architect | ESB Networks
T: +353 879824749 | www.esbnetworks.ie
No Planned leave
At ESB Networks, we are committed to working flexibly, while also respecting our right to disconnect. While it suits me to email now, I do not expect a response or action outside your working hours.

Powering Ahead

BeMe@ESB Ally

Case Study Organisation 2 – Gas Networks Ireland



[EXTERNAL] Re: Validation Request of Case Study write-up for my Research

PM **Paul McCarthy <paul.mccarthy@gasnetworks.ie>**
To: CENK KUZUCU
Wednesday 28 May 2025 at 18:43

Retention: 1-Year Expires: 28/05/2026.

Hi Cenk,

My apologies for the delay in responding to you.

I have reviewed the attached case study. I can confirm that it represents the project we discussed.
I am happy that the content reflects our engagement and subsequent interviews

Regards

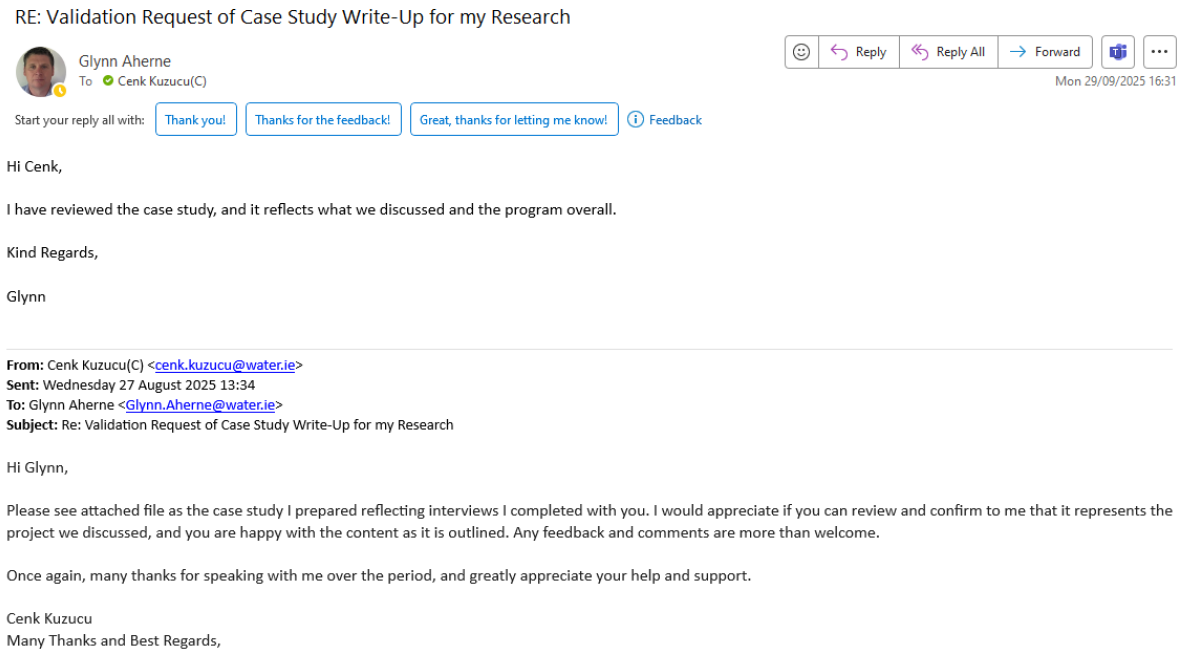
Paul

Paul McCarthy | *IT Architecture Manager*

Gas Networks Ireland
P.O. Box 51,Gasworks Road, Cork, Ireland

M +353 87 659 3370
E paul.mccarthy@gasnetworks.ie

Case Study Organisation 3 – Uisce Éireann



RE: Validation Request of Case Study Write-Up for my Research

Glynn Aherne
To Cenk Kuzucu(C)

Reply | Reply All | Forward

Mon 29/09/2025 16:31

Start your reply all with: Thank you! | Thanks for the feedback! | Great, thanks for letting me know! | Feedback

Hi Cenk,

I have reviewed the case study, and it reflects what we discussed and the program overall.

Kind Regards,

Glynn

From: Cenk Kuzucu(C) <cenk.kuzucu@water.ie>
Sent: Wednesday 27 August 2025 13:34
To: Glynn Aherne <Glynn.Aherne@water.ie>
Subject: Re: Validation Request of Case Study Write-Up for my Research

Hi Glynn,

Please see attached file as the case study I prepared reflecting interviews I completed with you. I would appreciate if you can review and confirm to me that it represents the project we discussed, and you are happy with the content as it is outlined. Any feedback and comments are more than welcome.

Once again, many thanks for speaking with me over the period, and greatly appreciate your help and support.

Cenk Kuzucu
Many Thanks and Best Regards,