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Improving Ideation Quality within Wärtsilä Energy´s Frontline Innovation Process

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Preface

This thesis marks the culmination of a deeply personal and professional journey. I would like to express my sincere gratitude to Wärtsilä Energy for offering a meaningful and timely topic, and for allowing me the space to explore it independently. Special thanks to Eleonor Hedström for her trust and support throughout the process.

I am grateful to all the stakeholders and interviewees who generously shared their time and insights during the research. Your contributions were invaluable in shaping the direction and depth of this work.

I would also like to thank the faculty at Metropolia University of Applied Sciences, especially my supervisor Antti Hovi and Zinaida Grabovskaia, for their patience, encouragement, and guidance. Your support helped me stay on course during the most challenging moments.

To my classmates, thank you for your friendship and shared experiences—even if much of our journey was shaped by the constraints of the pandemic.

Finally, I dedicate this work to my family. To my wife Veronika and children Bruno and Bianca—thank you for your patience, love, and belief in me. And to my late mother, whose memory has been a quiet source of strength throughout this journey.

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Abstract

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This thesis aimed to improve the quality of ideation within the frontline innovation process of Wärtsilä Energy, a global leader in sustainable energy solutions. The need for this development arose from the case company's internal observations that employee-submitted ideas lacked strategic alignment and sufficient detail, which hindered their progression through the innovation pipeline. The objective of the thesis was to propose practical improvements to enhance ideation quality and support the company's innovation goals.

The study was conducted using applied action research methodology. Data was collected through semi-structured interviews with key stakeholders, internal document analysis, and platform usage data from the company's innovation management system. The theoretical framework focused on innovation management systems, ideation methods, employee engagement, and idea evaluation models. Key models included ISO 56002, the Stage-Gate model, and the Accelerated Radical Innovation (ARI) model.

The practical part of the thesis involved a current state analysis of the ideation process, followed by the co-creation of a proposal with internal stakeholders. The proposal included three key elements: structured ideation campaigns, dedicated Idea Coach roles, and a recognition system for idea contributors. These elements were refined through stakeholder validation interviews and aligned with the company's strategic priorities.

The outcomes of the thesis provide the case company with a structured and scalable approach to improving ideation quality. The proposed improvements are expected to increase employee engagement, enhance the strategic relevance of submitted ideas, and strengthen the overall innovation culture. The final proposal has been requested for presentation to senior leadership to support implementation planning.

Keywords: Innovation management, frontline innovation, ideation quality, employee-driven innovation

Contents

Glossary

MVP	Minimum Viable Product – A version of a product with just enough features to be usable by early customers who can then provide feedback for future development.
SME	Subject Matter Expert – An individual with deep knowledge and expertise in a specific area or topic.
PDCA	Plan-Do-Check-Act – A four-step management method used for continuous improvement of processes and products.
CSA	Current State Analysis – A structured assessment of the existing situation, used to identify strengths, weaknesses, and areas for improvement.
CF	Conceptual Framework – A structure that guides research by outlining key concepts, variables, and their relationships
ARI	Accelerated Radical Innovation – A model that extends traditional innovation frameworks to support high-risk, high-reward innovation.

1 Introduction

Innovation is a process that an individual or organization undertakes to create something new. This can be brand new products, processes, and ideas, or a new approach to existing products, processes, and ideas. For companies to thrive, they must continuously generate and implement new ideas that address emerging challenges and opportunities. The process of ideation is particularly vital in industries undergoing significant transformations, such as the energy sector.

> *"Former Chief Digital Officer of GE William Ruh once stated that any business can be disrupted at any time, and its only defence to disruption is innovation. To survive, businesses must adopt innovation as a long-term strategy"* (Barlow, 2015).

Ideation is the first stage of the innovation process. For a business to achieve a high success rate in innovation, it is essential to generate high-quality ideas in the early phase. This ensures that subsequent stages of the innovation process are built on a strong foundation, ultimately driving up the company's frontline innovation success rate.

Ideation is a continuous process of generating, selecting, and developing ideas to solve problems or find new solutions. To improve ideation quality, the entire organization must support innovation as a core strategic decision. Ideation involves generating, developing, and communicating new ideas and is a key phase in the innovation process. The main characteristic of innovation is creating monetary value, which is crucial for business growth.

This thesis focuses on improving the ideation quality of the frontline innovation process, that should potentially help improve the innovation process within Wärtsilä's Energy business.

1.1 Business Context

The case company of the Thesis, Wärtsilä, is a global leader in innovative technologies and lifecycle solutions for the marine and energy sectors. Wärtsilä has a team of 17,000 professionals in more than 200 locations in 68 countries, driving the decarbonisation transformation of the marine and energy industries across the globe. In 2022, Wärtsilä's net sales totalled EUR 5.8 billion (Wärtsilä Corporation 2022).

Wärtsilä's strategy is based on two key themes, Transform and Perform. Wärtsilä understands how the decarbonisation transformation is accelerating within both the marine and energy sectors through the numerous new technologies and alternative fuels. Wärtsilä sees itself to be well-positioned to drive this transformation and believes it can make a difference for the world. Wärtsilä is guided by the following purpose,

> "*Enabling sustainable societies through innovation in technology and services*" (Wärtsilä Corporation, 2022).

Wärtsilä has two businesses, Marine and Energy, this thesis will focus on the energy business, Wärtsilä Energy. Wärtsilä Energy (hereafter referred to as the "case company") is leading the race to transition towards 100% renewable energy. The case company's track record comprises of 76 GW of power plant capacity and more than 110 energy storage systems delivered to 180 countries around the world. The case company provides customers with future-fuel enabled balancing power plants, hybrid solutions, energy storage and optimisation technology, including the GEMS energy management platform (Wärtsilä Corporation, 2022).

1.2 Business Challenge, Objective and Outcome

The energy sector is currently facing significant challenges, including the need for decarbonization, the integration of renewable energy sources, and the development of new technologies to improve energy efficiency. These challenges require companies to continuously innovate and adapt to changing market conditions and technological advancements (IEA, 2023). As a leader in the energy sector, the case company must address these challenges by fostering a culture of innovation and encouraging the generation of high-quality ideas that can drive business growth and transformation.

The current business challenge for the case company is around the quality of idea submissions through their frontline innovation process. Currently, the idea submissions collected by the case company via their innovation management platform are not meeting the expected quality standards. According to the innovation team, many submissions lack the necessary detail and strategic alignment for further development (Wärtsilä Corporation, 2022). This gap in quality is causing frustration for the innovation team, who are spending a lot of time and resources supporting the idea management pipeline with little or no development initiatives.

Literature on innovation highlights the importance of structured ideation and organizational support. Bensaou (2021) discusses embedding innovation into the organizational culture. ISO 56002:2019 emphasizes leadership, planning, and support in innovation management systems (ISO, 2019). Cooper (2008) describes the Stage-Gate model for managing innovation projects. Chesbrough (2003) introduces Open Innovation, leveraging external ideas and collaboration. Effective idea collection methods involve fostering intrinsic motivation (Pink, 2009). Stevanovic et al. (2015) discuss multi-level evaluation frameworks for consistent idea selection.

The objective of this thesis is *to propose improvements to enhance the quality of the ideation within the frontline innovation process of Wärtsilä Energy business*. The expected outcome of this thesis is a proposal to improve the current collaborative ideation process, helping the case company to meet its overall innovation objectives aligned with its strategic priorities.

1.3 Thesis Outline

The scope of the thesis is to develop a proposal for improving the quality of ideas through a collaborative ideation process within the case company. The thesis includes seven sections. Section 1 introduces the topic and the business context, business challenge, objective, and outcome of the thesis. In Section 2, describes the methods and materials used in this thesis. Section 3 presents the results from the current state analysis, including the questions on how ideation, i.e. ideas are currently collected and selected and the overall picture of the frontline innovation process. Section 4 begins by establishing foundational knowledge on innovation and the innovation process, which supports the subsequent sections focused on ideation, idea collection, and idea selection methods. Section 5 presents the initial proposal for the improvement to the ideation process that can support the case company's business transformation. The improvements to the ideation process are developed together with the case company's stakeholders based on the findings from the current state as well as from existing knowledge and best practices identified in Section 4. This proposal creates a process to improve the quality of ideas through the collaborative ideation. Section 6 reports on the results of validation of this initial proposal and presents the final proposal as well as action plan for the proposal implementation. Section 7 includes an executive summary and thesis evaluation.

2 Method and Material

This section describes the research approach, research design, and data collection and analysis methods applied in this thesis. This section is divided into three areas: research approach, research design, and data collection and analysis.

2.1 Research Approach

Research is a methodical process of inquiry or analysis that is aimed at discovering new facts and findings. It is a collection of different data, understanding of facts, analysis of the existing theories based on new facts and the documentation of critical information. Fundamentally, research aims to enhance the existing knowledge, extend understanding of little-known aspects of a topic and enable a better understanding of the subject (Saunders et al. 2016).

Research can be categorized into two main families, basic or applied. Basic research aims to collect information and data to understand the subject or phenomenon, whereas applied research uses the existing knowledge, facts, and findings to create new knowledge. Applied research focuses on solving existing practical problems and its solutions are outcome driven (Saunders et al. 2016).

Research methods can be quantitative, qualitative, or mixed. Quantitative methods rely on numerical or analysis of statistical data such as questionnaires, graphs, or statistics. Qualitative methods utilize non-numeric data and data analysis tools such as interviews, images, audio recordings or other similar. Mixed research methods combine both elements of both quantitative and qualitative approaches (Saunders et al. 2016).

A research strategy outlines how the researcher will answer research questions. The objective and research questions guide selection of the research strategy. Examples of quantitative research strategies include experiments or surveys, which can be carried out through questionnaires or structured interviews. Qualitative research strategies include action research, case studies, ethnography, grounded theory and narrative inquiry, with data collection methods carried out through interviews, observations, or content analysis. In action research, organizational problems are resolved through a collaborative process, with participation being a crucial element to gain a better understanding of complex issues and provide high-quality solutions (Kananen, 2013).

For this thesis, the chosen research strategy is applied action research. Applied research strategy addresses real-word problems and common issues, with the purpose of bringing about change by focusing on developing solutions for specific practical problems rather than merely just gathering knowledge (Kananen, 2013). Applied action research is particularly suitable for this study because it combines research and development parts, which typically relate to continuous enhancement and improvement in organizations. The result of this enhancement or improvement is typically a change for the better (Kananen, 2013).

Applied action research is not a single methodology, but a group of different research methodologies used according to the situation or objective for development. It is close to development work conducted in organizations to improve operations. The objective of applied action research in working life may be processes, activities, products, services, or situations as subjects of continuous improvements in organizations. In this arrangement, the development work becomes research work since it is conducted according to research conventions: data is carefully collected, documented, and analysed using research methods that produce reliable and novel results for the context (Kananen, 2013).

In this thesis, research methods include semi-structured interviews with key stakeholders to gather insights and feedback on the current ideation process. Observations involve attending ideation sessions and workshops to identify strengths, weaknesses, and areas for improvement. Document analysis includes reviewing internal documents to understand the alignment between strategic objectives and ideation activities. Numerical data from the innovation management platform is analysed to assess idea submissions, employee engagement levels, and the process's effectiveness, identifying trends and areas for improvement. Thus, Thesis uses qualitative methods to analyse how the case company’s employees view the current state of their ideation process.

2.2 Research Design

The research design of this study is divided into five steps, namely identification of the business challenge, current state analysis and search for best practice, process proposal, and top management approval. The research design is structured to systematically address the research objectives and ensure a comprehensive approach to improving the ideation quality within the case company’s frontline innovation process.

Each phase of the research design is carefully linked to the overall objectives of the study, providing a clear pathway to achieving the research goals. Figure 1 below shows the research design of this study.

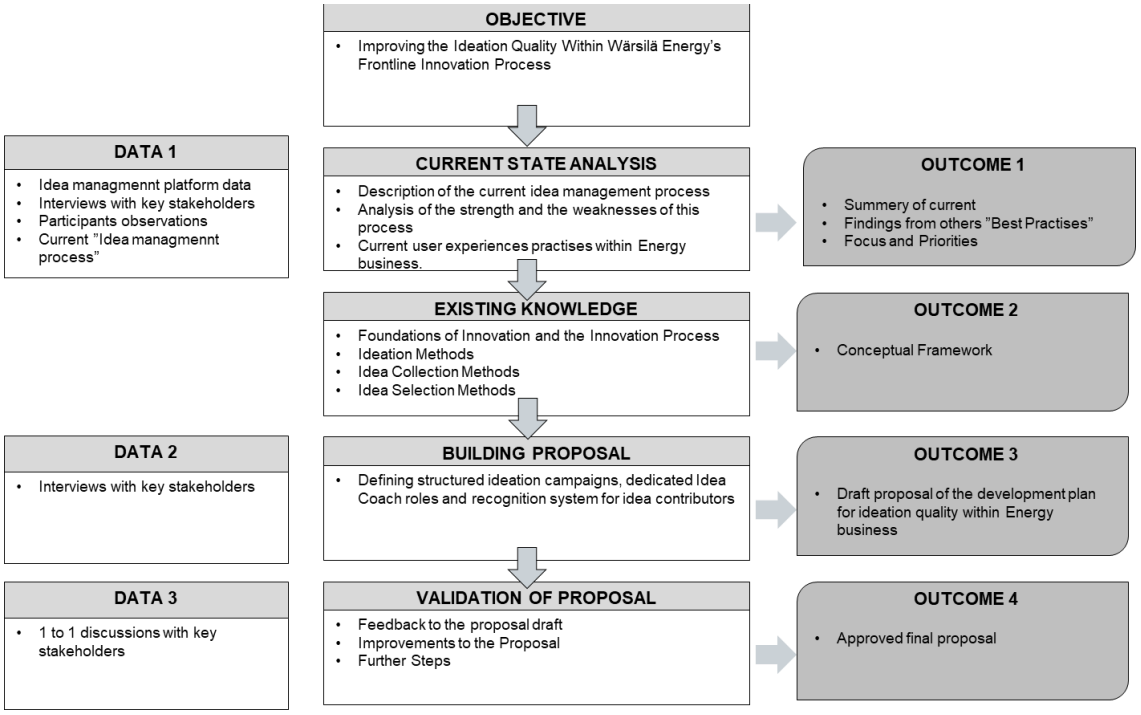

Figure 1. Research design of this Thesis.

As shown in Figure 1, the first phase setting the objective. This phase includes defining the problem within the case company, understanding its impact on the organization, and setting the objective to address the challenge. The objective of this phase is to establish a clear understanding of the business challenge and set the foundation for the ensuing research activities

The second phase involves conducting the current state analysis, to examine the existing ideation process within the case company. This includes defining the existing tools and processes, analyzing their strengths and weaknesses, and benchmarking with company-level practices. Data 1 collected during this phase helps identify the strengths and weaknesses of the current ideation process and provides a baseline for measuring progress. The output of this phase is a comprehensive understanding of the current state of the ideation process and identified areas for improvement.

The third phase involves exploring available knowledge and best practices around improving the ideation process as part of innovation. The most relevant elements of

available knowledge and best practices are pulled together into the conceptual framework for guiding the initial proposal development with key stakeholders. The objective of this phase is to explore theoretical knowledge and best, thus ensuring that the proposal is grounded in both practical and theoretical understandings.

The fourth phase focusses on co-creating an initial proposal for improving the ideation process and its outcomes in the case company. This involves conducting interviews and discussions with key stakeholders to gather their input and suggestions. Data 2 collected during this phase aims to develop a collaborative and evidence-based proposal that addresses the identified business challenge and aligns with the needs and expectations of the stakeholders. The output of this phase is an initial proposal for improving the ideation process.

The final phase involves validating the initial proposal through one-on-one discussions with key stakeholders to gather feedback and identify any improvements. Data 3 collected during this phase helps finalize the proposal. The objective of this phase is to ensure that the proposal is thoroughly evaluated, refined based on stakeholder feedback, and ready for implementation. The outcome of this phase is the finalized proposal.

In summary, the rationale for the choices made in the research design is based on the need to systematically address the business challenge, gather comprehensive data, integrate theoretical insights, develop a collaborative proposal, and ensure thorough validation. It creates a comprehensive approach to improving the ideation quality within case company's frontline innovation process.

2.3 Data Collection and Analysis

In this study data has been collected from various data sources in three rounds. Table 1 shows details of Data collections 1-3 used in this study.

Table 1. Details of Data collections 1-3 used in this study.

	Participants / role	**Data type**	**Topic, description**	**Date, length**	**Documented as**
	Data 1, for the Current state analysis (Section 3 or 4)				
1	Stakeholder 1:	Online Teams Interview	Feedback on the current ideation process	March 2023,	Field notes and recording

	Idea Coach (YM)			60 mins	
2	Stakeholder 2: Idea Coach (NK)	Online Teams Interview	Feedback on the current ideation process	March 2023, 60 mins	Field notes and recording
3	Stakeholder 3: Idea Coach (TN)	Online Teams Interview	Feedback on the current ideation process	March 2023, 60 mins	Field notes and recording
4	Stakeholder 4: Idea Coach (RT)	Online Teams Interview	Feedback on the current ideation process	April 2023, 60 mins	Field notes and recording
5	Stakeholder 5: HR Manager (KJ)	Online Teams Interview	Feedback on the current ideation process	March 2023, 60 mins	Field notes and recording
6	Stakeholder 6: Innovation Strategy manager	Online Teams Interview	Feedback on the current ideation process	Jan 2024, 90min	Field notes and recording
7	Stakeholder 7: Idea Submitter (CM)	Online Teams Interview	Feedback on the current ideation process	Jan 2024, 90min	Field notes and recording
8	Stakeholder 8: Idea Submitter (CF)	Online Teams Interview	Feedback on the current ideation process	Jan 2024, 90min	Field notes and recording
9	Stakeholder 9: Idea Submitter (OK)	Online Teams Interview	Feedback on the current ideation process	Jan 2024, 90min	Field notes and recording
10	Stakeholder 10: Idea Submitter (PC)	Online Teams Interview	Feedback on the current ideation process	Jan 2024, 90min	Field notes and recording
	Data 2, for Proposal building (Section 5)				
11	Stakeholder 11	Online Teams Interview	Proposal building	May 2025, 45min	Field notes and recording
12	Stakeholder 12	Online Teams Interview	Proposal building	May 2025, 45min	Field notes and recording
13	Stakeholder 13	Online Teams Interview	Proposal building	May 2025, 45min	Field notes and recording
	Data 3, from Validation (Section 6)				
14	Stakeholder 14	Online Teams Interview	Validation, evaluation of the Proposal	May 2025, 60min	Field notes and recording
15	Stakeholder 15	Online Teams Interview	Validation, evaluation of the Proposal	May 2025, 60min	Field notes and recording
16	Stakeholder 16	Online Teams Interview	Validation, evaluation of the Proposal	May 2025, 60min	Field notes and recording

As shown in Table 1, data for this Thesis was collected in three rounds. The first round, Data 1, was conducted to analyse the current state. The data was collected through internal interviews with 12 key stakeholders to understand how the case company currently carries out employee-driven innovation, its development needs, current processes, roles and responsibilities, possible bottlenecks, and end-user experience feedback. Out of the 12 interviews carried out, seven were idea submitters, i.e. with the users who have in the past submitted ideas into the platform. Four interviews were with the Idea Coaches who have managed/facilitated flow of the idea from the search phase right till its selection. One interview was with the Innovation Strategy Manager who is responsible for the case company's innovation strategy. These semi-structured interviews were conducted online via Teams, with some calls recorded and all transcribed for field notes. The questions for interviews can be found in Appendix 1. Additionally, feedback and existing materials linked to the innovation management platform used globally within Wärtsilä were gathered and utilized.

Data 2 and Data 3 collections were gathered through one-to-one discussions, Teams Interviews with stakeholders and customers. Field notes were made of each interview. The interviews were conducted with the internal stakeholders. The interviewees included idea submitters, idea coaches and stakeholders driving strategy and innovation within the case company. The interviewees were chosen based on their experiences and knowledge, and the insights they can provide regarding the current ideation process and the current innovation management platform used by Wärtsilä globally to collect ideas from employees. Finally, Table 2 provides an overview to the internal documents analysed in this study.

Table 2. Internal documents used in the current state analysis, Data 1.

	Name of the document	**Number of pages/other content**	**Description**
A	Strategy – The Wärtsilä Way.pptx	38	Corporate Level Strategy Description
B	EnergyStrategy.pptx	6	Business Level Strategy Description
C	Idea management process.pptx	14	Process Description
D	Our Purpose in Action short.pptx	9	Innovation Strategy

E	Energy WCI case - Idea handling process to secure our future competitiveness.pptx	1	Value stream outline where improvement is needed
F	OWI KPIs.pptx	5	Key Performance Indicators (KPIs) and reporting metrics for One Wärtsilä Innovation.
G	SPARK campaign manager's checklist.doc	1	Comprehensive guide for campaign managers to launch an idea collection campaign.

As seen from Table 2, several internal documents were analyzed to understand the innovation strategy, innovation framework, and innovation processes and tools used. As seen from the description field, the documents represent the Corporate and Energy business level strategy, and value stream outline document which are recent. All the other documents were drafted by the previous central innovation management team that were part of the previous Digital Transformation organization which was dissolved in the previous major organizational restructuring. The findings from the current state analysis are discussed in Section 3 below.

3 Current State Analysis of the Frontline Ideation Process in the Case Company

This section discusses the results of the current state analysis of the current frontline ideation process within the case company. The section highlights the strengths and the weaknesses of the overall employee ideation process and delivers a summary of the key findings at the end of this section.

3.1 Overview of the Current State Analysis

The current state analysis aims to create an in-depth view of the current frontline ideation process, from the call for ideas to the idea selection phase. As emphasized in Section 1.2, the challenge is to improve the quality of the employee idea submissions through improving the frontline innovation process within the case company. The assumption here is that improving the employee ideation experience will ultimately boost business innovation.

To get a better understanding of the current situation, the current state analysis was conducted in five steps. First, the current state analysis provides an overview of the frontline innovation process, examining the different phases: Search, Select, Implement and Capture. Second, the ideation process within the case company is described in detail, outlining the planning needed by all the stakeholders to define problems or opportunities, enabling employees to generate ideas. Third, the idea management process is described, detailing how different roles and responsibilities are involved in helping ideas mature towards implementation once they have been captured into the platform. Fourth, the strengths and the weaknesses of the current ideation process are identified, in addition to other findings of the current process, from processing Data 1 collection round. Finally, the main findings are highlighted from the steps previously described.

The analysis results were formulated based on data collected from interviews with key stakeholders, statistical data from the companywide innovation platform, review of internal documentation, and participant observations. Analysis of the current ideation and idea management process was done through interviews with 10 internal stakeholders with different roles in the ideation process of the case company. All the interview questions are visible in Appendix 1.

3.2 Overview of Frontline Innovation within the Case Company

At the case company, ideas are captured through ideation and subsequently managed through the idea management process. The case company collects two types of submissions from its employees, non-patentable referred to as ideas, and patentable referred to as inventions. This thesis will focus only on the non-patentable submissions, henceforth referred to as ideas.

3.2.1 Overview of the Frontline Innovation Process

Currently, innovation at the case company is seen as the sum of ideation and implementation. This section outlines the current four phases of the frontline innovation process within the case company: Search, Select, Implement and Capture. Figure 2 below shows the current frontline innovation process in the case company.

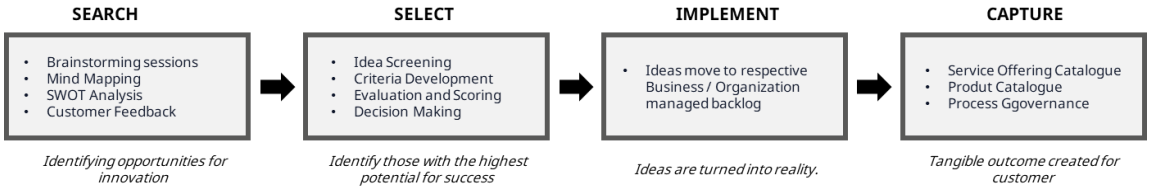

Figure 2. Current frontline innovation process in the case company.

As shown in Figure 2, the Search phase is focused on organising an effective search process to ensure a continuous flow of ideas. The Select phase is about identifying and selecting the ideas collected during the search phase with the most potential to grow and develop. The Implement phase is about converting these selected ideas into reality, and the final phase, the Capture phase, concentrates on ensuring that the efforts to create commercial or social value from these implementations are justified.

At the end of 2020, there was a major organizational restructuring within the case company. Prior to this organizational change, a centralized innovation team had the ownership to the manage all activities within the frontline innovation process. Following this organisational restructuring, all such activities were reassigned from this centralised innovation team to various individuals within each of the case company business units. This organizational restructuring resulted in a new company strategy, but no such strategy changes had an impact on the frontline innovation process, i.e. the existing ideation process or idea management process.

The necessity for the Search phase within the case company arises from internal business development initiatives. The aim is to generate a continuous flow of innovative ideas through activities such as new product development, employee engagement to rapid prototyping through hackathons. Communication and awareness of expectations are crucial to a successful outcome of the Search phase.

Once potential ideas have been identified and generated within the search phase, they are then funnelled into an innovation management platform. Once the ideas are collected into this platform, a cross-functional team that includes Subject Matter Experts (SME's) are invited to evaluate these submissions. The SMEs are given the responsibility to identify the potential of these captured ideas in the Select phase. This evaluation is carried out against a set evaluation criterion and can be done in one or more evaluation sessions. Ideas that align with the case company strategy and have business value potential are moved to the respective business unit development backlogs.

Depending on the effort required by the case company to implement these ideas, the time to capture value from these ideas can be anywhere from months to years. Once these ideas are successfully implemented, they are then entered into the business service offering catalogue, product catalogue or then part of the process governance. These ideas ultimately provide value to the case company's customers directly or then indirectly.

The case company currently has difficulties in generating and collecting ideas, and even when ideas have been captured, they do not meet the quality to go past this Select phase in the innovation process. To capture value through the frontline innovation process, it is important that the quality of ideas being funnelled during the search and select phases, i.e. the ideation process is improved. The sections below elaborate more on the Search and Select phases where all ideation activities are carried out.

3.2.2 Overview of the Ideation Process: Tools, Roles, and Responsibilities

At the case company, ideation is the creative space where the search for new ideas is generated, and implementing innovative methods can significantly enhance the potential results. To support this process, the case company utilizes an innovation management platform, which serves as the primary funnel for collecting ideas from frontline workers. This platform is accessible to all employees, allowing them to submit their ideas directly

into the system. The innovation management platform has been internally branded as Spark, and henceforth in this thesis it will be referred to with that name.

Spark is procured from a vendor as a SaaS offering and the platform provides the capability to the organization to express itself, from top to bottom, and it allows the employees get recognition and communicate openly, fostering a lasting culture of innovation and enhancing the visibility of the overall innovation pipeline. The case company employees can access Spark via their desktop or their mobile device.

All the ideas funnelled into Spark are then funnelled through two features in the platform, Channel and Campaign. Channel supports continuous engagement and allows the employees to submit ideas on any topic at any time. Campaign is time-boxed, theme-specific, and they are aligned with internal business development activities. The former feature is a reactive approach versus the latter being a more proactive approach to searching for ideas.

When an employee logs into Spark, they are presented with options to submit their ideas to only those channels or campaigns they are invited to. Channels are visible by default to all employees when they log into the platform. In cases there is an ongoing Campaign, the Campaign is given priority over the Channel and will be placed on the employee landing page above the Channel. As Campaigns, if required, can be targeted to a focus group, Campaigns are visible to employees only if they are invited; in case they are not, they will only see the Channel.

Currently, Innovation/Business Development managers within each business unit are responsible for driving ideation activities. During the Search phase, Innovation/ Development managers focus on communication, raising awareness, and engaging employees regarding the innovation initiative. These activities serve as a call to action for the workforce. During the Search phase, the goal is to activate frontline employees into submitting relevant ideas into Spark. While Spark does not directly support activities during the Search phase, the specific activities performed by these Innovation/ Development managers would depend on whether their decision is to run a Channel or a Campaign.

Once a decision is taken to run a Campaign or a Channel. The next step is to setup the Channel or Campaign in Spark and assign roles within the Channel/Campaign. Each Channel/Campaign has multiple roles, where one person can hold multiple roles. The

roles within a Channel or Campaign are quite similar and each role plays a key role in helping run a Campaign or Channel, each of the different roles are described more in detail below.

Table 3. Key roles in the frontline ideation process.

Role	Description
Campaign/Channel Manager	Administer a campaign, oversee graduation of ideas, select evaluation team, run evaluation sessions
Sponsor	Senior in organization, action-minded, commit to process results, benefit from results
Idea Submitter	Frontline employees targeted to submit ideas
Idea Coach	Support stakeholders in submitting and elaborating ideas, check quality of submitted ideas
Moderator	Provide model submissions, review submissions and comments, support lively discussions
Evaluator	Review and assess ideas against criteria within timeline, present best ideas to sponsor

All the roles mentioned above, except for the Moderator, are important roles, and their responsibilities should be assigned before the ideation process begins. The Innovation/Development manager is responsible to build his Campaign/Channel team, by identifying the persons for each of the above roles. Some team members can hold more than one role. Some of the above roles are unique to each phase and some could span across the Search and Select phase, which will be elaborated more in detail in Section 3.2.3.

Innovation/Business Development managers often take on the role of a Campaign/Channel manager. This role allows them to ensure that the innovation theme is aligned to the ideation process, and outcome meets the objectives. They also define the evaluation criteria for clear and consistent evaluation of the idea submissions by evaluators. Campaign/Channel managers are accountable to the Sponsors to ensure all the investment in time and effort generates business value.

In the past three years 2021 – 2023 to capture ideas, the case company had setup one global channel targeted to all its employees and zero strategy focused campaigns. Based on the data retrieved from the Spark platform, Figure 3 below shows that, through this channel, the case company has received a total of 64 ideas submissions over the last 3 years, that would make it an ~1,8 ideas per month. Figure 3 below shows the number of ideas captured per year via the global channel in 2021 – 2023.

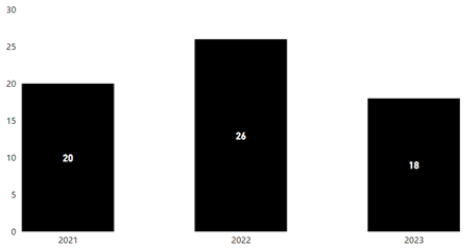

Figure 3. Number of ideas captured per year via Global Channel (2021 – 2023).

Next, Figure 4 shows the user activity in that channel, there was a total of 206 unique employee visits out of approximately 4500 employees. In the last 3 years that made it an average of 6 unique employee visits per month to this channel. Data from figures 4 & 5 quite clearly highlight the state of the innovation process within the case company. Figure 4 below shows the number of employee visits per year to the channel in 2021 – 2023.

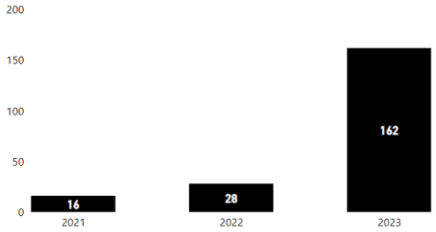

Figure 4. Number of employee visits per year to the Channel (2021 – 2023).

Next, it is important to describe the idea management process and the roles, to better understand the behaviours, and pain points in the current frontline ideation process.

3.2.3 Description of the Idea Management Process

Once an idea is funnelled into Spark, the idea moves from the Search phase into the Select phase. The idea management process implemented within this select phase plays a pivotal role in determining which ideas move forward for further development. The idea management process has four steps, Draft, Community Discussion, Evaluation, Selected for Next Steps, and Archived.

The Idea Coach in the Channel/Campaign plays a critical role in driving forward the ideas within the idea management process. While the Channel or Campaign Manager oversees the entire channel or campaign, it is the Idea Coach is accountable for all ideas once they are funnelled into Spark. They are responsible for ensuring that each idea efficiently progresses through the process. They oversee the evaluation and provide the Channel/Campaign Manager with recommendations on how to proceed based on the evaluation results. Figure 5 below shows the case company's idea management process.

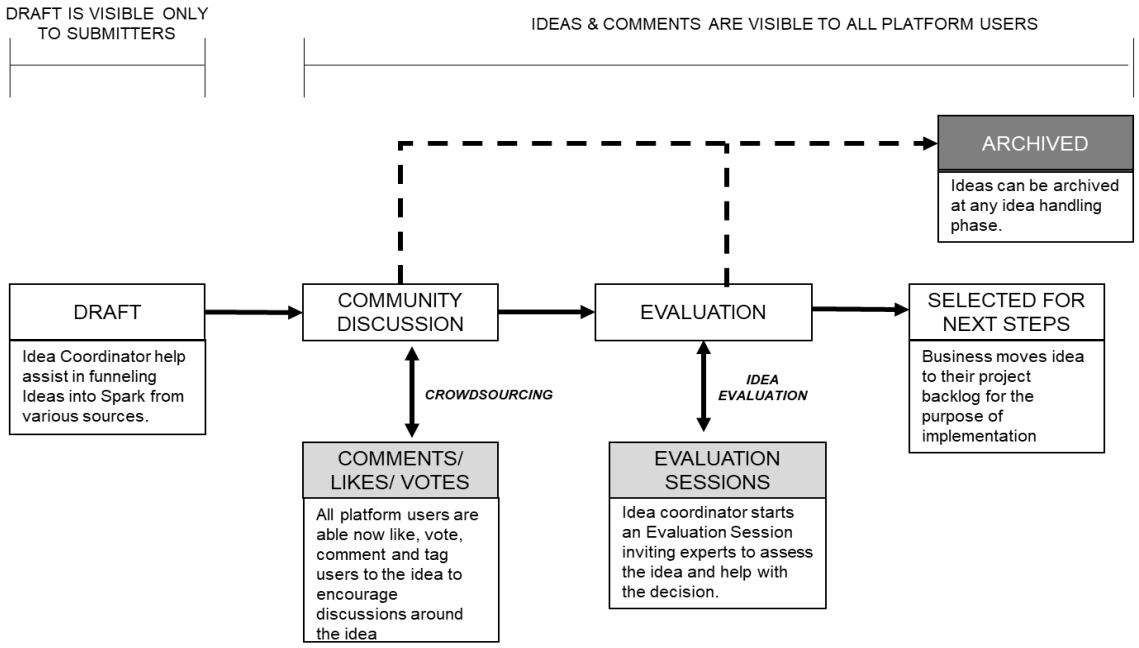

Figure 5. The case company's Idea management process (internal document).

As shown in Figure 5, the first status in the process is Draft, this status provides the ability for an Idea Submitter to draft their ideas at their own pace. This means that when an idea has not been submitted into the Channel/Campaign the idea will stay in Draft status and can be worked on as long as the idea submitter is comfortable to click on the "Submit Idea" button. During this status, the draft is only visible to the employee and when idea is successfully submitted a notification is sent to the idea coach. Now the employee assumes the role of an idea submitter within the platform and the idea moves from Draft status to Community Discussion.

Community Discussion is the second status. When the idea is moved to this status the idea is now visible to all participants of the Channel and Campaign. In this status, the

Idea Coach together with a Moderator (if assigned) help boost the visibility of the idea within business and help foster healthy discussions to collect different perspectives from the case company's employees. Once it is in Community Discussion, the employees can comment, vote and like ideas to help enhance the maturity of the idea, this practise is called crowdsourcing. This is the most powerful way to provide the employees full transparency into the ideation pipeline and a possibility to impact on all ideas being captured through this funnel.

The third status is Evaluation. Once the idea is moved to Evaluation status, the idea is closed for community feedback. An Idea Coach advances an idea to the Evaluation status when it is determined that the feedback received has matured sufficiently and has been thoroughly considered. At this point, the idea is ready to be evaluated by a group of Subject Matter Experts (SMEs).

The Idea Coach creates an evaluation form with specific questions in Spark and sends it to the nominated SMEs via the platform. A deadline is set for the feedback. Once received, the feedback helps the idea coach decide whether to proceed with the idea or not.

Fourth, the last step in the idea management process, where the idea coach has two options once the evaluation has been carried out. The Idea Coach either marks the idea to be "Selected for Next Steps" or then "Archived". If the idea is marked as selected for next steps, the idea leaves the platform and moves to the respective business unit's backlog. This is the end of the line in Spark for the idea, and all updates for this idea must now be followed in the business unit specific backlog. If the idea is not to be promoted for implementation it will be marked as Archived with an archiving reason. Once Archived, the idea will be marked as inactive on the platform. Even though the idea is inactive the idea is still accessible to anyone on the platform. The Archive status can be applied to an idea at any point in the process, that is if an Idea Coach identifies early in the process that an idea does not have the needed business value. The Idea Coach does not need move an idea through all of the above statuses and can instead bypass any status and archive the idea. An archived idea can be reactivated at any time in the future, and reintroduced in the idea management process if business does decide to make such a decision.

Summing up, the case company idea management process has four steps, Draft, Community Discussion, Evaluation, Selected for Next Steps or Archived. The Idea

Coach plays a key role in driving this idea through the different phases and engaging the different required stakeholders to help identify if there is business value to be generated from these idea submissions.

3.3 Analysis and Key Findings from the Current State Analysis

The analysis first focuses on the stakeholders with roles in the ideation process and then moves to the stakeholders with roles in the idea management process.

3.3.1 Analysis of the Ideation Process in the Case Company

When discussing with interviewees around the innovation strategy of the case company, the interviewees described the current innovation strategy to be different from what it was prior to the organizational restructuring. The prior innovation strategy focused on capturing ideas that were leaning towards being game changing or radical transformations. Whereas today the focus is more on going back to the core and focusing on searching for innovation "closer to the home" through continuous or incremental innovation.

> "*I sense the distrust in the organization towards innovation management in general, not specifically the idea part, but sort of like innovation management in general and there we need to work on sort of like creating transparency.*" (Stakeholder 1)

This change in strategy within the case company has given birth to three newly formed business units named, Energy Storage and Optimization, Engine Power Plants and Energy Services with end-to-end ownership for their offerings. The case company now has a small team within the Strategy and Development team are to support the business units with their innovation initiatives. These changes have also made the communication around innovation within the case company to the employees very challenging, resulting in business having mistrust in the process.

> *"Waiting a bit for the business to set up their new processes and then to see where we fit in…"* (Stakeholder 1)

Since the last major organizational shakeup took place three years ago, there have been more changes within the case company organization. But while the strategy and development team in the case company have been working on renewing their innovation

strategy, they have had to wait for the newly formed business units to get setup their processes and then see where this innovation team fits in to execute on it.

> *"Would it make sense to have more of this kind of campaign approach so that you have something a problem to solve or a challenge."* (Stakeholder 1)

Another challenge around the current ideation process that was identified was the possibility for employees to submit ideas on any topic, from creating a new type of screw to a let's build a floating power to X generator. The open box concept of the channel on the innovation platform to capture ideas is not only resulting in ideas submitted that are unaligned with the company strategy but also making it challenging to find someone within the business to take on ownership of such ideas. This unclarity is leading to long response times from idea coaches back to idea submitters.

From the data presented around the case company's innovation activities in Section 3.2.2, it was clear to see that the case company had setup only a single channel and zero campaigns. When also looking at the employee activity data from Spark in Figure 4 and comparing the number of employee visits to the other channels and campaigns on the Spark platform, it can be seen that the case company specific channel (Energy Global Channel) has 10x less traffic over the last three years. Figure 6 below shows the employee visits to Spark platform vs visits specifically to the case company channel in Spark.

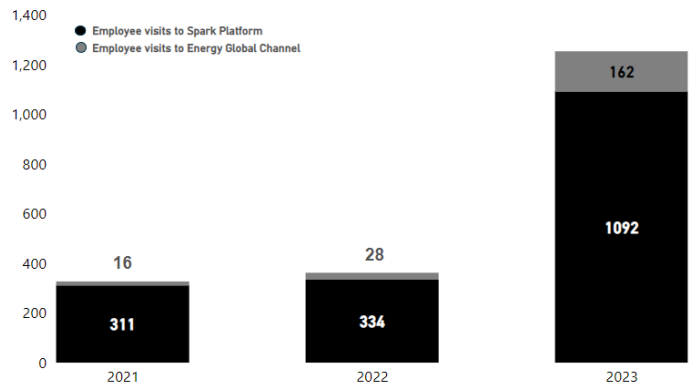

Figure 6. Employee visits to Spark platform vs specifically to the case company channel in Spark

Summing up, considering these findings around the ideation process, it is evident that the case company was not actively engaging with its employees through the company innovation management platform. This lack of communication with its employees around

the company innovation strategy via ideation campaigns has impacted the user engagement levels and affected the frontline innovation culture. This quite possibly has been due to the challenges of aligning processes within a business unit itself but also cross business unit and support functions too. Poor communications around strategy and lack of engagement within the case company had also alleviated the mistrust within business units towards innovation management.

3.3.2 Analysis of the Idea Management Process in the Case Company

As described in Section 3.2.2, there are several different roles that are involved in the case company's idea management process. But due to the integral role of the Idea Submitters and Idea Coaches play within the idea management process, feedback was collected from only those two roles.

Those who were interviewed as part of this Idea Submitter's role were proactive and highly motivated around innovation, needing little or no engagement from business to submit their ideas. These Idea Submitters highlighted that intuitiveness of the Spark platform's user interface made it easy to create idea drafts either alone or as a team, and the capability to provide supporting data for these ideas in multiple formats provided an overall positive experience during the submission process. However

> "*Currently it feels like a black box*" (Stakeholder 2)

Once the idea was submitted and the idea entered the Community Discussion phase, this overall satisfaction did take a dip. The Idea Submitters felt the feedback loop on their submission was slow or non-existent. They felt that there was also little transparency in the process, with one interviewee suggesting it felt Spark was a black box.

> *"To come forward with your ideas, and when you then insert it into spark your maybe doing it just quickly."* (Stakeholder 3)

When discussing this part of the process with Idea Coaches, they offered a different perspective. The biggest reasons why they saw delays in Idea Submitters getting feedback were very often due to the quality of ideas submitted. Ideas that were submitted with very weak idea content provided especially big challenges to Idea Coaches to push forward as they gave them little to move forward and tie it down to the company's business strategy.

> *"We have tried to try to discuss with idea submitters to get more information. So, what do you mean by this? And we don't get this one. It's always been quite short discussions and hence these ideas maybe are not growing as they could."* (Stakeholder 3)

> "*Time management is a challenge. We are becoming a very lean organization. Whilst and while we had lots of resources in the organization for more administrative duties, not anymore like…, now the workload, is too much. The number of virtual meetings is getting too much as well.*" (Stakeholder 3)

Those who are assigned the role of Idea Coach currently hold this role in addition to their main job responsibilities. This additional responsibility creates a lot of scheduling challenges for them when they need to setup up short sessions to work on building the ideas to the right content level with Idea Submitters. The trend of hybrid working has also not helped, as it has resulted in the increase in scheduling of back-to-back online meetings, thus raising the workload for both Idea coaches and Idea submitters.

When the idea enters Community Discussion phase, the purpose is to provide transparency in the process and allow colleagues to collaborate with the Idea Submitter through the opportunities of crowdsourcing. To get maximum visibility, it is crucial that this idea is promoted within business through the right internal communication channels by the Idea Submitter and Idea Coach. Based on the employee engagement data collected from Spark, Figure 7 below shows the employee engagement around the ideas that were submitted into the case company's global channel.

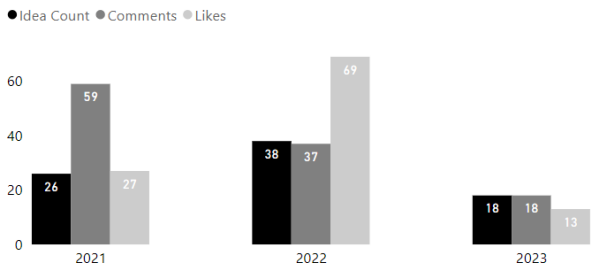

Figure 7. Employee engagement on ideas submitted into case company channel (2021 – 2023).

As seen from Figure 7, the employee engagement through crowdsourcing activities such as liking and commenting on the ideas was rather low. On average, each idea got less than one comment and one like over the last three years. Based on this level of user engagement, at this phase the idea submitter is not receiving a sufficient level of constructive feedback through this crowdsourcing activity.

Based on the discussions with the Idea Coaches around how ideas are evaluated, it was also noticeable that the evaluations carried out by the case company was different from the default evaluation process. In the process run by the case company Idea Coaches, the ideas would not be transferred from Community Discussion phase to Evaluation phase. It would instead stay in the Community Discussion phase while the Evaluation was carried out. The Idea Coach would hold a monthly session with the case company innovation team to review the ideas and get input on all submitted ideas on how to move forward. There were also no predefined evaluation forms that could be filled out to carry out the evaluation. The team had a discussion on all the open ideas and then would decide to either take the required actions to move forward with an idea or then archive it in its current state if it identified not to have any potential. As a result, very few ideas were promoted through this process to the implementation phase.

Based on the data collected in the Spark platform and shown in Figure 8 below, only one idea was promoted to the implementation phase in the last three years. When discussing this with the Idea Coaches and looking at the data itself, it seems the practise of the Idea Coaches is to put the idea in “archive” status irrespective if the idea did pass the evaluation session to be promoted or not. Hence, as can be seen from Figure 8, while 21 ideas were still active in Community Discussion, there are 95 ideas that have been marked as archived in the platform, but it could very well be that many might have been promoted for implementation. Figure 8 below shows the idea status in the case company channel in 2021 – 2023.

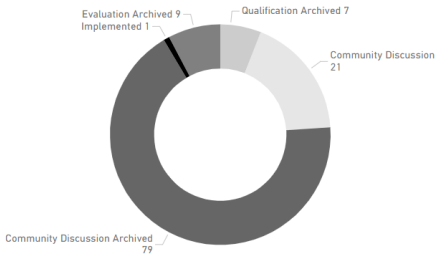

Figure 8. Idea status in the case company channel by idea status (2021 – 2023).

What this means is that today with the data available it is still not possible to track the capture value that the ideation process could potentially generate. Even though the process has been defined to identify those ideas that are to be selected for next steps and those to be archived, this does not actually happen, and it prevents the possibility to get more insights around the case company’s ideation.

> "*If implemented also nice to get the recognition within the company, that this person submitted this idea.*" (Stakeholder 2)

From the Idea Submitters perspective, they would like to see that the Idea Submitter gets the needed recognition from the company for any of their submissions. Now with the idea being marked as "archived" in the platform, the Idea Submitter receives a notification mentioning the same. But in some cases, it has been noticed that after some time they have found out that the idea was taken forward to implementation. This type of unclear communication does cause the Idea Submitter to mistrust the process and platform. Idea submitters liked the thought of receiving the recognition from their colleagues not necessarily monetary but just to be seen as valued employees.

Based on these findings, the next section will pull together the strengths and the weaknesses and point to other findings of the current state analysis of the current frontline ideation process and then will summarize the selected focus areas.

3.4 Summary of the Current State Analysis Results

During the current state analysis, based on interviews observations and the internal data analysis, it was noticed that there is currently no strategy aligned campaigns to help set business expectations on what type of innovation is expected from the employees. Idea coaches are holding this role in addition to their main job responsibilities, and this does create a heavy workload and ultimately delays in the feedback loop. Also, the process around the selection process is not being followed as it has been defined within the platform, and this is creating a bit confusion with the idea submitters. Figure 9 below shows the summary findings of the current state analysis, including first the strengths of the case company's ideation service, second the weaknesses, and third the key focus areas selected for improvement in the next steps of this study.

3.4.1 Strengths and weaknesses of the current ideation process

Figure 9 below shows the summary findings of the current state analysis, including the strengths and weaknesses of the case company's ideation process, and the key focus areas selected for improvement in the next steps of this study.

Strengths	Weaknesses
• Strong history of engaging employees in collaborative innovation initiatives. • Innovation is explicitly recognized as a strategic priority within the company. • Spark platform is user-friendly and accessible across devices, supporting idea submission and evaluation. • Clearly defined ideation process with structured roles (e.g., Idea Coach, Campaign Manager, Evaluator). • Platform includes built-in features for transparency and collaboration (e.g., voting, commenting). • Some employees are motivated and proactive in submitting ideas. • Cross-functional evaluation teams (e.g., SMEs) are involved in assessing ideas.	• No strategy-aligned ideation campaigns have been conducted in the past three years. • Idea Coach role is not dedicated, leading to time constraints and delayed feedback. • Limited internal communication about the shift of company innovation strategy. • Low employee engagement with the Spark platform (low submission and visit rates). • Inconsistent idea selection process; ideas are often archived without proper evaluation or feedback. • Poor content quality in many idea submissions, lacking detail or strategic relevance. • No formal recognition system for idea contributors, even when ideas are implemented.

Figure 9. Key findings of the current state analysis of the current ideation process

The strengths of the case company's ideation process are elaborated a bit more in detail here, first it has a long-standing culture of collaborative innovation. Second innovation is clearly positioned as a strategic priority. Third this priority is supported by the deployment of the Spark platform, which offers a user-friendly interface. Fourth the Spark platform also includes structured roles such as Idea Coach, Campaign Manager, and Evaluator, which provides a clear process for managing ideation activities. Fifth, the platform supports community engagement through features like voting and commenting, enabling employees to contribute to the development of ideas through crowdsourced feedback. Sixth, Subject Matter Experts (SMEs) are involved in the evaluation process reflects a cross-functional approach and finally some employees are motivated to proactively submit ideas, indicating a potential for innovation within the organization.

The weaknesses recognized based on the analysis results related, first, to the fact that there were no topic-focused campaigns organized in the last three years, neither direction provided to the employees on what the priorities were when it came to innovation.

Second, the Idea Coach role was not the main job responsibility of the assigned people. They were assigned this role in addition to their main job responsibilities. It created a heavy workload for Idea Coaches and that directly affected the time they were able to

allocate to engage with Idea Submitters or then to the idea itself. It ultimately affected the response times that Idea Submitters did mention in their interviews.

Third, the common consensus from the interviews was that there was no clear communication around the innovation strategy with the case company employees. The case company had just one global channel open for employees to submit ideas and no clear guidance on the fact that the company had moved innovation strategy from radical innovation to continuous/incremental innovation.

Fourth, the ideas submitted received very poor employee engagement. From the data retrieved from the platform, it was obvious that, first, the idea submission rate was very low, and then the number of employees visiting the case company global channel was very low, which resulted in the low interaction levels on the submitted ideas. On average, the case company was only engaging 2-3 % of the company.

Fifth, it was also revealed that the idea selection process was not being followed as defined in the platform. Ideas were being archived irrespective if the idea was to be marked inactive and archived or then selected for next steps to be promoted for implementation. This practise provided an unclear message on the actual state of a submission and led to mistrust especially in cases when the Idea Submitter later noticed their idea implemented. Additionally, this incorrect process handling inserted faulty data into Spark, making it very challenging to get any insight from this data if it were to be retrieved from Spark.

Sixth, the content quality of the ideas was evaluated as rather poor, and the information submitted on an idea was often lacking, which made it very challenging for Idea Coaches to make any progress with its evaluation. It often-required extra effort from Idea Coaches to reach out to the Idea Submitter to get more context to understand its content. Sometimes it was possible and sometimes not, but in all the cases, it stretched the idea handling process even longer.

Seventh, Idea Submitters received no recognition for any idea that was successfully implemented. There was also no recognition for any employees that were active in the innovation ecosystem. Idea submitters enjoyed the possibility to submit ideas, give potential solutions to problems, and the excitement of the selection process. What they all felt was that it would be great to be recognised by their business, their team and/or

even their line manager. They also wondered why this would not be part of the yearly development discussions.

3.4.2 Selected Focus Areas

The chosen focus areas have been determined by examining the current state analysis, its strengths, weaknesses, and by identifying and evaluating the problems and considering the areas for possible improvement. Based on the findings, the following three focus areas were recognized as requiring improvement within the case company's innovation process:

1. Ideation Methods
2. Idea Collection Methods
3. Idea Selection Methods

Thus, the focus areas for the improvement efforts in the Thesis will include: (1) ideation methods (2) idea collection methods (3) idea selection methods within the innovation process. Section 4 will explore these areas through available literature and best practices, which will serve as the basis for building the proposal in the following section.

4 Available Knowledge and Best Practise on Ideation Methods, Idea Collection Methods and Idea Selection Process

This section discusses the available knowledge and best practices for improving ideation methods, idea collection methods, and idea selection methods within the innovation process. It begins by establishing foundational knowledge on innovation and the innovation process, followed by sections that explore methods for ideation, and then methods for collecting and evaluating ideas. Together, these sections provide a holistic view of the ideation process. The section ends with a conceptual framework that integrates key insights.

4.1 Foundations of Innovation and the Innovation Process

Aronson (2008) has traced the origin of the word “innovation” to the Latin noun *innovatio*, derived from the verb *innovare*, which refers to introduce something new. This section defines innovation and explores it in its various forms. It then introduces the principles of innovation management, followed by a review of innovation models and the stages of the innovation process. These elements form a broader context in which ideation occurs and are essential for understanding how organizations can systematically support and manage idea generation.

4.1.1 Innovation Definition and Different Areas of Innovation

Innovation in the business context has no universally accepted definition and has been interpreted in various ways across disciplines. Singh and Aggarwal (2022) synthesized 208 definitions of innovation using grounded theory to propose a unified definition. According to their view, an idea does not need to be entirely novel to be considered innovative; rather, it must add value to the organization. Innovation, therefore, plays a critical role in helping businesses improve efficiency, create value, and maintain a competitive edge. In this thesis, the following definition of innovation is adopted:

> “*Innovation is the operationalization of creative potential with a commercial and/or social motive by implementing new adaptive solutions that create value, harness new technology or invention, contribute to competitive advantage and economic growth*” (Singh & Aggarwal, 2022, pp.191).

The above definition emphasizes that innovation involves transforming creative ideas into practical solutions with commercial or social purposes. It includes implementing new methods that create value, utilize new technologies or inventions, to help organizations gain a competitive edge. Ultimately, innovation drives economic growth by enhancing efficiency and effectiveness.

Innovation can be further categorized based on the area it aims to improve. These areas vary depending on the industry and organizational goals. Common types include product, service, process, technological, social, marketing, organizational, and business model innovation (Keeley et al., 2013).

Schilling (2022) emphasizes the importance of understanding whether an innovation affects individual components or the overall system. Innovation novelty can be categorized into four main types: incremental, radical, component (modular), and architectural. Incremental innovations enhance existing components within an unchanged system, while radical innovations introduce new components and often require a new system configuration. Component innovations change individual parts without affecting the overall system, while architectural innovations alter the relationships between components and the entire system (Schilling, 2022, pp.49–52). The table below summarizes these innovation types. Disruptive innovation is not part of Schilling's formal typology but is discussed in relation to technological discontinuities and market transformation (Schilling, 2022, pp.54–56).

Table 4. Innovation Novelty Types (adapted from Schilling, 2020, pp.49-52).

Innovation Type	**Component**	**System**
Incremental Innovation	Enhanced Components	Unaltered System
Radical Innovation	New Components	New System Configuration
Modular Innovation	New Components	Unaltered System
Architectural Innovation	Reconfigured Components	New System Configuration
Disruptive Innovation	Simpler, Cheaper Solutions	Fundamentally Altered Market Dynamics

As seen from Table 4, while disruptive innovation is not formally included in Schilling's typology table, it is discussed in the context of technological discontinuities and S-curve dynamics. Disruptive innovations typically begin with lower performance but improve over time, eventually displacing established technologies (Schilling, 2022, pp.54–56). A well-known example is the rise of digital photography, which disrupted the traditional film

photography industry. Companies like Kodak, which once dominated the film market, were significantly impacted by the advent of digital cameras. These digital cameras initially targeted niche markets but eventually improved in quality and functionality, leading to widespread adoption and the decline of film photography (Schilling, 2020, pp.54-56).

Recognizing the different types and sizes of innovation is essential for assessing the quality of ideas, as it provides a framework for determining their novelty, feasibility, and strategic alignment. Having established a foundational understanding of what innovation is and the various forms it can take, the next section explores how organizations can systematically manage innovation to harness its full potential. The next section builds on this foundation by exploring how organizations can systematically manage innovation through structured systems and leadership practices.

4.1.2 Innovation Management

Innovation management refers to the structured and strategic approach organizations use to foster, guide, and sustain innovation activities. It encompasses the leadership, culture, systems, and processes that enable the transformation of creative ideas into valuable outcomes. As discussed in the previous section, innovation is not merely about novelty, it is about creating value through the operationalization of creative potential (Singh & Aggarwal, 2022). To harness this potential effectively, organizations must adopt a deliberate and systemic approach to managing innovation, and it often related to using various frameworks and systems.

According to ISO 56002:2019, an Innovation Management System (IMS) is a set of interrelated and interacting elements that guide an organization in formulating its innovation vision, strategy, and objectives, while establishing the necessary support and processes to achieve them. The IMS framework emphasizes the importance of leadership commitment, a culture that supports innovation, and collaboration across internal and external stakeholders (ISO, 2019). These elements are aligned with the Plan-Do-Check-Act (PDCA) cycle and form the foundation for a systematic and iterative approach to innovation. The core elements of the innovation management system, as structured by ISO 56002, are summarized in Table 5 below.

Table 5. Key elements of innovation Management System (ISO 56002:2019).

Element	Description
Context of the Organization	Understanding internal and external factors that influence innovation.
Leadership	Establishing vision, strategy, and commitment to innovation.
Planning	Setting innovation objectives and determining actions to address risks.
Support	Providing resources, competence, awareness, and infrastructure.
Operations	Managing innovation initiatives and processes.
Performance Evaluation	Monitoring, measuring, and analysing innovation performance.
Improvement	Continuously enhancing the innovation management system.

This table illustrates how ISO 56002 structures innovation management as a comprehensive system. Each element plays a distinct role in ensuring that innovation is embedded into the organization's strategic and operational fabric. The context of the organization provides the foundation for understanding the environment in which innovation occurs. Leadership defines the direction and commitment needed to drive innovation. Planning ensures that innovation objectives are aligned with strategic goals. Support provides the necessary resources and capabilities. Operations translate plans into action through structured innovation activities. Performance evaluation ensures that outcomes are measured and assessed, while improvement ensures that the system evolves through learning and feedback (ISO, 2019).

A central mechanism in ISO 56002 is the Plan-Do-Check-Act (PDCA) cycle, which supports the continual improvement of the innovation management system. In the planning phase, organizations establish innovation objectives and determine actions to address opportunities and risks. The doing phase involves implementing the planned actions, including support and operational processes. The checking phase focuses on monitoring and measuring results against objectives using performance indicators. Finally, the acting phase involves taking corrective actions to improve the system based on evaluation and feedback. This cycle helps ensure that innovation activities remain flexible, continuously improving in response to internal and external change. It also reinforces the idea that innovation is a continuous journey, not a one-time event (ISO, 2019). Figure 10 below illustrates how the innovation management system is structured around the PDCA cycle.

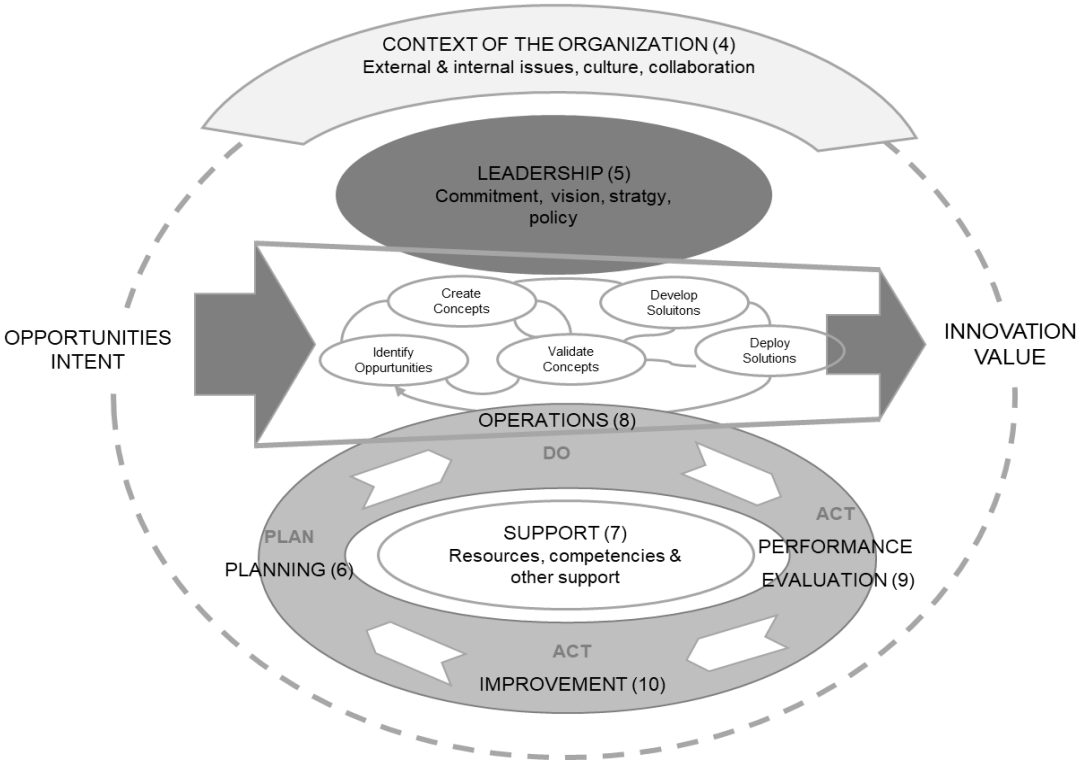

Figure 10. Framework of the Innovation Management System aligned with the PDCA cycle (ISO 56002:2019).

Figure 10 highlights the interconnection between organizational context, leadership, planning, support, operations, performance evaluation, and continual improvement. It provides a visual representation of how innovation is embedded within the organization's strategic and operational framework, reinforcing the systemic and iterative nature of innovation management.

While ISO 56002:2019 provides a structural foundation, Gupta (2018) adds a valuable perspective by emphasizing the human and managerial dimensions of innovation. Leadership style, employee engagement, and organizational learning are critical enablers of innovation success. These elements are particularly relevant to ideation, as they influence how ideas are generated, supported, and developed within the organization. Managerial innovation also plays a key role in aligning innovation activities with organizational goals and enhancing a firm's adaptability in dynamic environments (Gupta, 2018).

By establishing a structured innovation management system and embedding it within the organization's strategy and culture, businesses can create the conditions necessary for effective innovation. The next section explores how these conditions are operationalized through the innovation process, which includes the sequence of activities through which

ideas are generated, developed, validated, and implemented. The next section explores how these principles are operationalized through the stages of the innovation process.

4.1.3 Innovation Models

Innovation models provide structured frameworks that help organizations understand, manage, and implement innovation activities. The innovation process describes the stages through which ideas evolve, from opportunity identification to deployment. Innovation models, on the other hand, offer strategic and operational blueprints that guide how these stages are executed. These models vary in complexity and focus, depending on the organization's goals, industry, and innovation maturity. Understanding these models is essential for improving ideation quality, as they influence how ideas are generated, evaluated, and implemented within organizations. This section presents five influential innovation models: Technology Push, Market Pull, Stage-Gate, Design Thinking, Lean Startup, and Open Innovation. These models are not mutually exclusive; rather, they can be adapted or combined to suit different innovation contexts. Understanding these models provides a foundation for selecting appropriate ideation methods, which are discussed in the next section.

The earliest conceptualizations of innovation processes are often described through the Technology Push and Market Pull models, which represent two distinct perspectives on how innovation is initiated and driven within organizations and industries. The linear nature of the Technology Push model is illustrated in Figure 11.

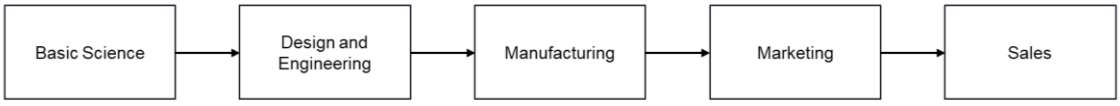

Figure 11. Technology Push - 1st Generation Model (Rothwell,1994:8).

As shown in Figure 11, the Technology Push model assumes that innovation begins with scientific discovery and technological development. The process flows sequentially from R&D to engineering, manufacturing, and finally to marketing and sales. This model reflects a belief that technological advancements will naturally lead to market success, even in the absence of prior customer input. It was particularly dominant during the post-war industrial expansion of the 1950s and 1960s, when internal capabilities and scientific breakthroughs were seen as the primary drivers of innovation (Rothwell, 1994:7-8). While this model encourages radical and exploratory ideation, it often lacks immediate

market relevance, which can limit the practical impact of the innovations it produces. The contrasting logic of the Market Pull model is presented in Figure 12.

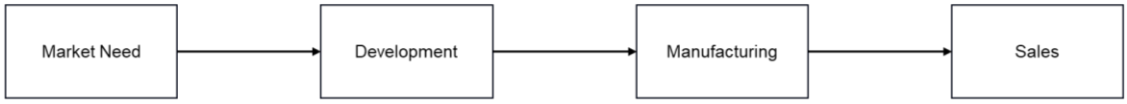

Figure 12. Market Pull - 2nd Generation Model (Rothwell, 1994:9).

Figure 12 illustrates how the Market Pull model reverses the flow of innovation. In this model, innovation is initiated by identifying customer needs and market demand. The process begins with market research and customer insight, followed by development, production, and commercialization. R&D plays a responsive role, developing solutions to meet clearly defined problems. This model fosters ideation that is more user-centric and strategically aligned with business objectives, often resulting in incremental innovations that are easier to implement and adopt (Brem, 2008:48–49; Rothwell, 1994:9).

Together, these models illustrate the evolution of innovation thinking, shifting from a focus on internal technological capabilities to a more outward-looking and demand-driven approach. This shift reflects a broader understanding that high-quality ideation must balance technological potential with market relevance. The next model, Stage-Gate, builds on this foundation by introducing a structured framework for managing innovation projects through defined stages and decision points.

The Stage-Gate model introduces a more structured and evaluative approach to managing innovation. While the earlier models focus on the origin of ideas, either from internal R&D or external market needs, the Stage-Gate model emphasizes the process through which ideas are developed, assessed, and either advanced or terminated. It provides a systematic framework for guiding innovation projects from conception to launch, helping organizations improve both the efficiency and quality of their ideation and development efforts. An overview of the Stage-Gate process is presented in Figure 13.

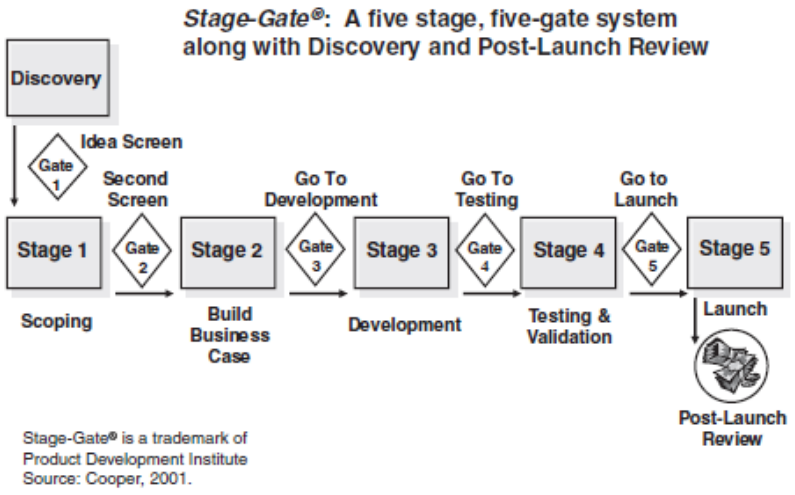

Figure 13. The Stage-Gate innovation model showing stages and decision gates (adapted from Cooper, 2008)

As shown in Figure 13, the Stage-Gate model consists of a series of stages, where cross-functional teams perform specific activities to gather information and reduce uncertainty, followed by gates, which serve as decision points. At each gate, the project is evaluated based on predefined criteria, and a decision is made to proceed, hold, recycle, or terminate the project. This structure allows for incremental investment and risk management, as each stage requires a higher level of commitment and resources but also provides more validated information.

The model begins with a discovery phase, followed by five main stages: scoping, building the business case, development, testing and validation, and launch. Between each stage is a gate, where deliverables are reviewed, criteria are applied, and outputs such as go/kill decisions and resource allocations are determined. This process ensures that only the most promising ideas progress, thereby improving the overall quality of innovation outcomes (Cooper, 2008:214–216).

One of the key strengths of the Stage-Gate model is its adaptability. While it is often depicted as a linear process, it is designed to be flexible and iterative. Activities within stages can occur in parallel, and stages can overlap when necessary. This flexibility allows organizations to tailor the model to different types of projects, from high-risk platform innovations to incremental product improvements. Moreover, modern implementations of Stage-Gate incorporate lean principles, spiral development, and digital tools to enhance speed and responsiveness (Cooper, 2008:223–225).

In the context of ideation quality, the Stage-Gate model plays a critical role by embedding structured evaluation and feedback loops into the innovation process. It ensures that ideas are not only creative but also strategically aligned, technically feasible, and commercially viable. The model's emphasis on cross-functional collaboration and rigorous decision-making contributes to more robust and actionable ideas, setting the stage for successful implementation.

While the Stage-Gate model emphasizes process control and decision checkpoints, the following model, Design Thinking, shifts the focus toward empathy, creativity, and experimentation, offering a more human-centered approach to innovation. The foundational principles of Design Thinking are illustrated in Figure 14.

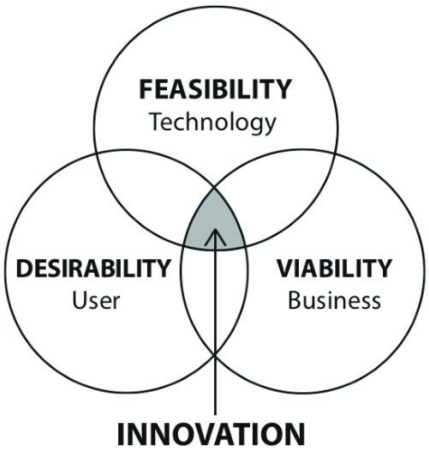

Figure 14. Design Thinking framework (Brown, 2009).

As shown in Figure 14, Design Thinking is grounded in the integration of three key criteria: desirability (what people need and want), feasibility (what is technically possible), and viability (what is financially sustainable). This triad ensures that innovation efforts are not only imaginative but also practical and scalable. The process typically unfolds across three overlapping spaces: inspiration, where insights are gathered; ideation, where ideas are generated and tested; and implementation, where solutions are refined and brought to market (Brown, 2009:16-18).

Unlike traditional problem-solving approaches that rely heavily on analytical reasoning, Design Thinking encourages divergent thinking, rapid prototyping, and iterative learning. It draws on the designer's ability to observe human behaviour, identify latent needs, and translate those insights into meaningful solutions. This approach is not limited to professional designers; rather, it is a mindset and methodology that can be applied across disciplines and industries (Brown, 2009, pp. 3-4).

A hallmark of Design Thinking is its emphasis on empathy, the ability to understand and share the feelings of others. This is achieved through immersive research methods such as ethnographic observation, storytelling, and role-playing. These techniques help uncover deep user insights that often go unnoticed in conventional market research (Brown, 2009, pp. 47-49).

In the context of ideation quality, Design Thinking contributes by fostering creativity, encouraging experimentation, and ensuring that ideas are grounded in real human needs. It supports the generation of novel concepts while maintaining a strong connection to user experience and emotional resonance. Moreover, its iterative nature allows for continuous refinement, reducing the risk of failure and increasing the likelihood of successful implementation.

While Design Thinking focuses on generating innovative ideas through empathy and iteration, the Lean Startup model builds on this foundation by emphasizing rapid experimentation and real-world validation. It extends the iterative mindset into the implementation phase, ensuring that ideas are continuously tested and refined based on measurable outcomes. The core of the Lean Startup model is the Build-Measure-Learn feedback loop, illustrated in Figure 17.

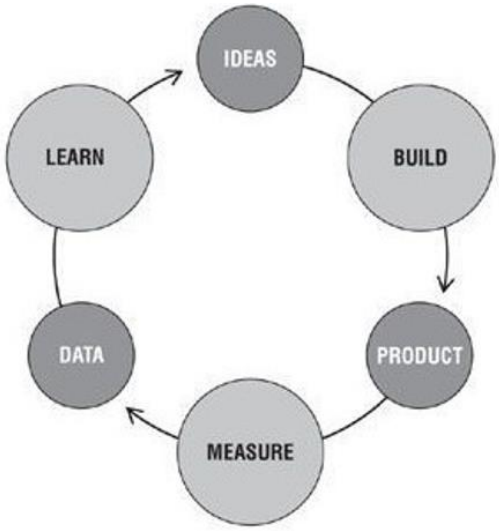

Figure 15. Build-Measure-Learn Feedback Loop (adapted from Ries, 2011, p. 75)

As shown in Figure 17, the process begins with building a minimum viable product (MVP), a simplified version of a product or service designed to test a specific hypothesis with minimal resources. The MVP is introduced to users, and their interactions are measured to gather actionable data. This data is used to generate insights, which inform

the next iteration of the product or service. The cycle is repeated continuously, allowing teams to refine their ideas based on real-world feedback (Ries, 2011:75–80).

A defining feature of the Lean Startup model is its focus on validated learning (Ries, 2011:37–41). The process of testing hypotheses and using empirical evidence to make informed decisions. This learning extends beyond product features to include customer segments, pricing models, and business strategies. When the data indicates that an idea is not achieving the desired outcomes, teams are encouraged to pivot—making a strategic shift in direction while maintaining the overall vision (Ries, 2011:149–162).

In terms of ideation quality, the Lean Startup model contributes by embedding experimentation and feedback into the innovation process from the outset. It encourages teams to test ideas early and often, reducing the risk of investing in unviable concepts. This iterative approach supports the development of ideas that are not only creative but also grounded in user needs and market realities.

As the Lean Startup model emphasizes internal agility and rapid learning, the subsequent model, Open Innovation, broadens the scope by incorporating external knowledge and collaboration into the ideation process. The conceptual framework of Open Innovation is illustrated in Figure 16.

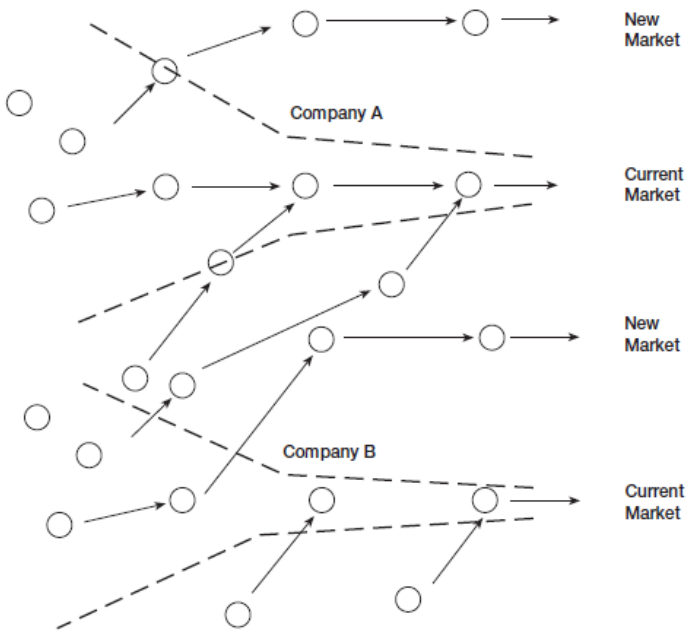

Figure 16. The Open Innovation Paradigm (Chesbrough, 2003, p. 44)

As shown in Figure 16, Open Innovation is based on the principle that firms should not rely solely on their internal R&D but should also leverage external ideas, technologies, and business models. This includes collaborating with universities, startups, suppliers, customers, and even competitors. The model also encourages firms to allow unused or underutilized internal innovations to flow outward, where they may create value in other contexts or through licensing, spin-offs, or joint ventures (Chesbrough, 2003:43-45).

This paradigm shift is driven by several factors: the increasing mobility of skilled workers, the rise of venture capital, the proliferation of external research institutions, and the growing complexity of technology. These dynamics have eroded the effectiveness of the traditional “closed” R&D model, where innovation was tightly controlled within the firm (Chesbrough, 2003:18-19).

In practice, Open Innovation enables firms to access a broader pool of ideas and capabilities, accelerating the innovation process and reducing time-to-market. It also allows for more flexible business models, where firms can monetize their intellectual property through licensing or partnerships, even if the innovation does not fit their core business (Chesbrough, 2003:52–54).

In the context of ideation quality, Open Innovation enhances both the diversity and novelty of ideas. By tapping into external perspectives and expertise, organizations can overcome internal blind spots and generate more creative, relevant, and impactful solutions. Moreover, the collaborative nature of Open Innovation fosters a culture of openness, trust, and shared learning which are key enablers of high-quality ideation.

Summing up, the innovation models discussed above provide structured approaches to managing ideation and development. However, their effectiveness depends on how well they are embedded into a broader innovation process that guides ideas from conception to implementation. The following section explores how organizations implement innovation through defined stages, offering a practical lens on how these models are applied in real-world settings.

4.1.4 Innovation Process

Innovation is not a one-time event but a continuous, structured process that transforms ideas into value-creating outcomes. Building on the innovation management principles

discussed in the previous section, this section explores how innovation is operationalized through a series of interconnected stages. These stages form the innovation process, which is essential for ensuring that ideas are not only generated but also developed, validated, and implemented effectively.

According to ISO 56002:2019, the innovation process consists of five core stages: identifying opportunities, creating concepts, validating concepts, developing solutions, and deploying solutions. These stages are iterative and adaptable, allowing organizations to tailor the process to their specific context and innovation goals (ISO 56002:2019). Each stage is supported by feedback loops that enable learning and refinement, ensuring that innovation remains responsive to internal and external changes. Figure 17 below presents the official ISO 56002:2019 visual representation of the innovation process.

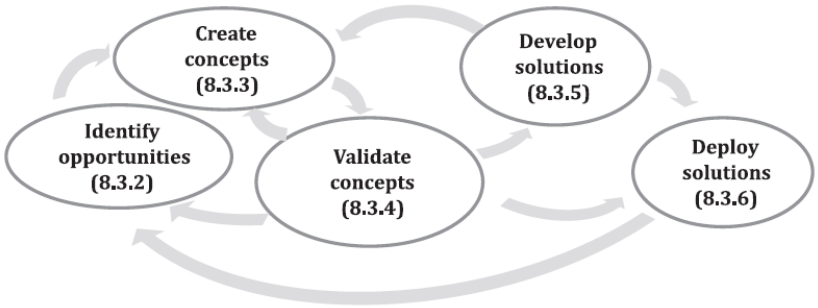

Figure 17. Overview of the innovation process stages as defined in ISO 56002:2019 (source: ISO 56002:2019, Figure 2, p. 18)

As shown in Figure 17, the five core stages of the innovation process—identifying opportunities, creating and validating concepts, developing solutions, and deploying them. It emphasizes the iterative and non-linear nature of innovation, highlighting the flexibility required to adapt to different types of innovation initiatives.

The first stage, identifying opportunities, involves scanning the environment to uncover unmet needs, emerging trends, and strategic challenges. Singh and Aggarwal (2022) emphasize that this stage is shaped by both psychological and ecological processes, where creative potential and motivation interact with contextual factors to define innovation opportunities. The second stage, creating concepts, focuses on generating and selecting ideas that address the identified opportunities. This stage benefits from structured ideation techniques and cross-functional collaboration. Gupta (2018) highlights the role of managerial innovation in this phase, where leadership and organizational support are critical for translating ideas into actionable concepts. The third

stage, validating concepts, involves testing assumptions through prototyping, experimentation, and stakeholder feedback. Singh and Aggarwal (2022) describe this as a phase where problem-solving and goal setting play a central role in shaping the innovation trajectory.

The fourth stage, developing solutions, transforms validated concepts into deployable offerings. This includes refining business models, preparing operational plans, and aligning with internal capabilities. ISO 56002:2019 emphasizes the importance of integrating innovation activities with other business functions to ensure readiness for implementation. The final stage, deploying solutions, involves launching the innovation to users or the market. This includes performance monitoring, user engagement, and capturing feedback for continuous improvement. Gupta (2018) notes that successful deployment requires not only technical readiness but also cultural alignment and leadership support.

To illustrate how these stages are supported in practice, Figure 18 Motorola's Innovation Framework Hattendorf (2014) provides a useful example of how a large organization structures its innovation capabilities.

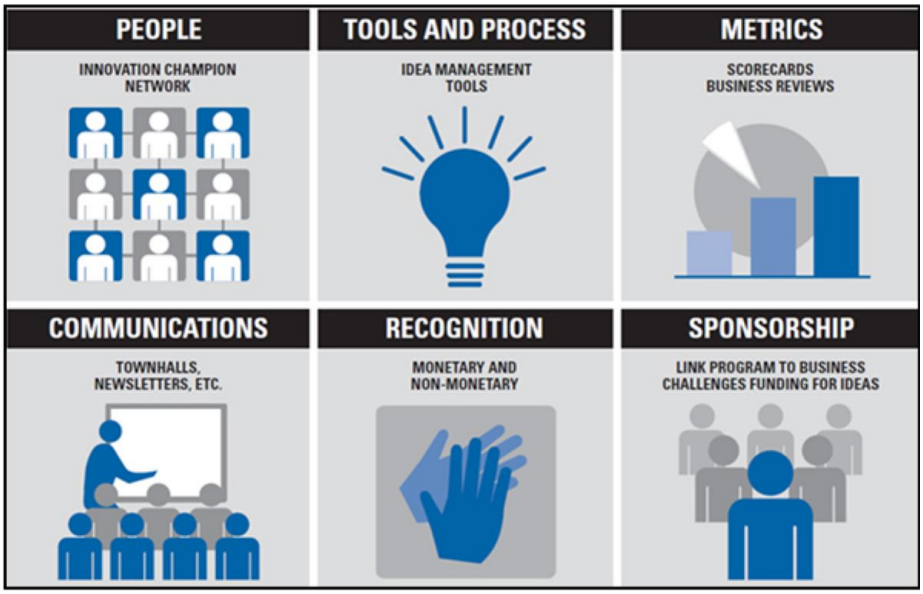

Figure 18. Motorola's key components of the Innovation framework (Hattendorf 2014).

Figure 18 above presents the six key components of Motorola's Innovation framework. The first one is the Innovation Champion Network that consists of handpicked innovation enthusiasts within the company with broad innovation experience and personal connections. The second is tools and processes defined for idea collection and

development. Third is business scorecards to be used to measure the innovation with metrics such as number of adopted innovation and their business impact. Fourth is communication, the best practices for communicating innovation success stories. Fifth is recognition, i.e. the monetary and non-monetary recognition practice for successful innovation. Sixth and final is the funding mechanisms, Motorola the idea challenges are funded by the business lines. These components are designed to support innovation across the organization and are coordinated through a hub-and-spoke model centered around the Chief of Technology Office (Hattendorf, 2014).

Rather than representing a step-by-step process, this framework outlines the infrastructure and cultural enablers that support innovation activities. For example, the Innovation Champion Network consists of experienced individuals who promote innovation across business units. Tools and processes provide structure for idea collection and development, while business scorecards track innovation outcomes. Communication and recognition practices help build a culture of innovation, and funding mechanisms ensure that promising ideas receive the resources they need.

In addition to these components, Hattendorf (2014) also describes seven steps Motorola followed to build this innovation framework. These steps are summarized in Table 6 below.

Table 6. Seven Steps to Building Motorola's Innovation Framework (adapted from Hattendorf, 2014)

Step	Description
1.	Creating a scalable platform for success
2.	Establishing the right organizational principles
3.	Building a culture of innovation
4.	Communicating and engaging
5.	Launching targeted innovation challenges
6.	Recognizing and rewarding contributions
7.	Measuring, refining, and scaling

Table 6 outlines the strategic process Motorola used to embed innovation across the organization. These steps emphasize the importance of leadership, communication, and

continuous improvement in building a sustainable innovation capability. They align closely with the principles of ISO 56002 and reinforce the need for a structured yet adaptable approach to innovation.

Motorola's framework complements ISO 56002:2019 by offering a practical, organization-wide approach to managing innovation. It reinforces the need for strategic alignment, structured processes, and cultural support, key themes also emphasized in the ISO model. Moreover, Motorola's emphasis on recognition and communication aligns with the thesis focus on improving ideation quality, as these elements are critical for motivating employees to contribute high-quality ideas.

Summing up, as demonstrated by Motorola's framework and the ISO 56002 model, successful innovation processes rely on structured systems and cultural enablers. However, the effectiveness of these systems ultimately depends on the quality of ideas generated at the outset. The next section explores how organizations can systematically support ideation through effective collection methods, ensuring that innovation efforts are grounded in relevant, high-quality input.

4.2 Ideation Methods

This section looks at the different methods used to generate ideas in the innovation process. While the previous section explained the basics of innovation and how it is managed, this part focuses on ideation as the starting point for turning goals into creative ideas. It begins by explaining what ideation means and why it is important. Then, it introduces the thinking processes behind idea generation, followed by a review of commonly used ideation techniques. The section also discusses how to choose the right method depending on the situation and ends with how these methods can be used in everyday work to support a culture of innovation.

4.2.1 Definition and Role of Ideation in Innovation

Ideation is the first and one of the most important stages in the innovation process. It involves generating new ideas to solve problems, improve existing solutions, or explore new opportunities. This stage sets the foundation for the rest of the innovation journey, as the quality of ideas generated early on can significantly influence the success of later development and implementation efforts.

Ideation is not just about creativity or inspiration; it is also shaped by the environment and the people involved. Ideation is part of a broader process that includes generating, developing, promoting, and implementing ideas. In the early phase, individuals need cognitive flexibility, the ability to connect unrelated concepts in new ways. This flexibility is often supported by diverse social networks, where exposure to different perspectives can spark more original thinking (Perry-Smith & Mannucci, 2017).

Collaboration also plays a key role in ideation. Research shows that when people are exposed to a variety of creative examples, especially in structured settings, they tend to come up with more diverse and innovative ideas. This is not because they copy others, but because seeing different ideas helps them think in new ways. Tools like “idea maps” can help people explore a wide range of ideas and find inspiration from others (Siangliulue et al., 2015).

In this thesis, ideation is viewed as a collaborative and intentional process that helps employees contribute ideas that align with the company’s goals. When done well, ideation can lead to ideas that are not only creative but also practical and valuable to the organization. To better understand how ideas are created and developed, it’s helpful to look at the different ways people think during the ideation process. The next section explains two important thinking styles that help shape how ideas are formed and improved, divergent and convergent thinking.

4.2.2 Divergent and Convergent Thinking

Within the ideation process, two distinct yet complementary cognitive approaches are essential for generating and refining ideas, they are divergent and convergent thinking. Divergent thinking involves producing a wide range of possible responses to open-ended challenges, while convergent thinking focuses on narrowing those responses to identify the most effective or feasible solution. These modes function not as opposites, but as iterative phases that support creative problem-solving and high-quality ideation (Guilford, 1967, pp. 138–139, 171-172).

Divergent thinking is marked by fluency, flexibility, originality, and elaboration. It enables individuals and teams to explore multiple directions, make novel associations, and consider unconventional possibilities. This form of thinking is particularly valuable in the early stages of ideation, where the goal is to expand the problem space and uncover

new opportunities. Research into intellectual abilities has shown that divergent production operates across multiple domains, including semantic, figural, and symbolic content, and is foundational to creative performance (Guilford, 1967, pp. 138-169).

In contrast, convergent thinking is characterized by logical reasoning, pattern recognition, and the application of structured methods to arrive at a single, well-defined answer. It plays a critical role in the later stages of ideation, where ideas must be evaluated, refined, and selected for implementation. The ability to integrate diverse inputs and apply them toward a coherent solution is central to this mode of thinking (Guilford, 1967, pp. 171-183).

The practical application of these thinking styles can be observed in the use of prototyping within design processes. Early-stage prototypes are intentionally rough and exploratory, allowing teams to test a wide range of ideas quickly and inexpensively. This approach supports divergent thinking by encouraging experimentation and iteration. As projects progress, prototypes become more refined and focused, enabling teams to assess feasibility and alignment with user needs, an expression of convergent thinking (Brown, 2009, pp. 91, 97-98).

A real-world example of this interplay is found in the development of the Embrace Infant Warmer. The team behind the project began with a broad challenge and used rapid prototyping to explore multiple directions. Through repeated testing and refinement, informed by direct engagement with users in rural communities, they were able to converge on a solution that was both technically viable and culturally appropriate. This process illustrates how divergent exploration, and convergent decision-making can be integrated to produce meaningful outcomes in ideation (Kelley & Kelley, 2013, pp. 66-69).

Creating an environment that supports both modes of thinking is essential for fostering high-quality ideation. Encouraging open exploration without fear of failure, while also providing tools and structures for refining ideas, helps individuals and teams move from creative potential to practical impact (Kelley & Kelley, 2013, pp. 70-73).

4.2.3 Common Ideation Techniques

Ideation techniques are structured methods used to stimulate creative thinking and generate a wide range of ideas. These techniques support both divergent and convergent thinking and are essential for enhancing the quality and quantity of ideas generated during the innovation process.

One of the most widely used techniques is brainstorming, which encourages participants to generate as many ideas as possible in a non-judgmental environment. This method is effective in the early stages of ideation, where the goal is to explore a broad range of possibilities (Kelley & Kelley 2013, pp.74-107). A variation of this method, brainwriting, allows participants to write down their ideas individually before sharing them with the group, which can help reduce groupthink and encourage contributions from quieter individuals (de Villiers 2022, pp. 199–201).

Another commonly used technique is mind mapping, which helps visualize connections between ideas and supports associative thinking. This method is particularly useful for exploring complex problems and identifying relationships between different concepts (Tidd & Bessant 2020, pp. 188–189). Similarly, the SCAMPER technique (Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse) provides a structured checklist to help reframe existing ideas and develop new ones (de Villiers 2022, p. 202).

Six Thinking Hats, developed by Edward de Bono, is a technique that assigns different roles or perspectives to participants, such as logical, emotional, or creative thinking. This is to ensure a balanced evaluation of ideas, this method is especially useful in convergent thinking phases, where ideas are assessed and refined (de Villiers 2022, p. 202-206).

Analogies and metaphors are powerful tools in ideation, enabling participants to draw parallels between unrelated domains. This approach can lead to novel insights and alternative ways of framing problems by breaking habitual thought patterns and encouraging innovation (Kelley & Kelley 2013, pp. 74-107).

In digital and hybrid work environments, virtual whiteboards and collaborative platforms have become increasingly important. These tools replicate the dynamics of in-person ideation sessions and support asynchronous collaboration, making ideation more inclusive and scalable (Tidd & Bessant 2020, pp. 186–187).

In summary, techniques such as brainstorming, brainwriting, mind mapping, SCAMPER, Six Thinking Hats, and analogical thinking offer structured yet flexible approaches to ideation. When applied appropriately, these methods can significantly enhance the creativity, relevance, and feasibility of ideas generated within an organization. Understanding these techniques is essential, but selecting the most suitable method for a given context is equally important. The next section explores how organizations can choose the right ideation method based on their goals, constraints, and innovation maturity.

4.2.4 Choosing the Right Ideation Method

As discussed in the previous section, there are many ideation techniques available to support creative thinking. However, not all methods are equally effective in every situation. Choosing the right ideation method depends on several factors, including the nature of the problem, the composition of the team, the time available, and the desired outcomes.

One important consideration is the type of problem being addressed. Open-ended or ambiguous challenges may benefit from divergent techniques such as brainstorming or mind mapping, which encourage a wide range of ideas. In contrast, more structured problems may require convergent methods like SCAMPER or Six Thinking Hats, which help refine and evaluate ideas systematically. Group size and dynamics also influence method selection, as some techniques are better suited for small, collaborative teams, while others work well in larger or asynchronous settings (de Villiers 2022, pp. 197-206).

In addition to the problem type, the organizational context plays a key role in method selection. Early-stage innovation efforts may benefit from exploratory techniques that promote creativity, while later stages may require more structured approaches to evaluate and develop ideas. The maturity of the innovation process, available resources, and alignment with strategic goals should all be considered when selecting ideation methods (Tidd & Bessant 2020, pp. 186–189).

Finally, the energy and confidence of the team are also important. Teams that are new to ideation may prefer familiar, low-pressure methods such as brainwriting, which reduce performance anxiety and encourage participation. More experienced teams may be comfortable experimenting with advanced or hybrid techniques. A flexible and adaptive

approach to method selection allows teams to learn what works best in their specific context and to evolve their practices over time (Kelley & Kelley 2013, pp. 74-107).

In summary, selecting the right ideation method is not about finding a universal solution. It involves understanding the problem, the people involved, and the broader innovation environment. A thoughtful approach to method selection can improve the quality of ideas and make the ideation process more engaging and effective.

4.2.5 Embedding Ideation Methods in Organizational Practice

As discussed in the previous section, selecting the right ideation method is a critical step in supporting creative thinking. However, the long-term value of ideation depends on how well it is embedded into the everyday practices and routines of an organisation. Rather than treating ideation as a one-off event or workshop, it should become a continuous and integrated part of how teams approach problem-solving and innovation.

Embedding ideation begins with creating the right conditions for creativity to take place. This includes fostering a culture of psychological safety, where individuals feel confident to share ideas without fear of judgement. When teams are encouraged to experiment and take creative risks, ideation becomes a more natural and frequent activity. In this context, creative confidence and team trust are essential enablers of sustained ideation practice (Kelley & Kelley 2013, pp. 167-196).

In addition to cultural support, ideation can be embedded through practical tools and routines. For example, journey mapping and mind mapping are lightweight methods that can be used regularly to explore user experiences and generate new ideas. These tools are accessible and adaptable, making them suitable for use in team meetings, project planning, or early-stage concept development (Liedtka & Ogilvie 2011, pp. 81-95; 104-125). When used consistently, such tools help normalise ideation as part of everyday work.

Another important aspect of embedding ideation is the use of rapid prototyping and iterative testing. By encouraging teams to quickly visualise and test their ideas, organisations can reduce the pressure to produce perfect solutions and instead focus on learning through experimentation. This approach supports a more dynamic and

responsive innovation process, where ideas are continuously refined based on feedback (Liedtka & Ogilvie 2011, pp. 165-180).

Organisations can also support embedded ideation by developing internal roles or structures that promote creative thinking. For instance, some companies have introduced innovation facilitators or cross-functional teams that help guide ideation activities and ensure they are aligned with broader strategic goals. These roles can help maintain momentum and ensure that ideation is not limited to specific departments or isolated projects (Tidd & Bessant 2020, pp. 172-178).

Finally, embedding ideation requires regular reflection and feedback. This includes evaluating how often teams engage in ideation, how ideas are followed through, and how creative practices are evolving over time. By tracking participation and outcomes, organisations can identify areas for improvement and reinforce the value of continuous ideation (Tidd & Bessant 2020, pp. 179-185).

In summary, embedding ideation into practice involves aligning tools, culture, and routines to support ongoing creative engagement. When ideation becomes a habitual and valued part of everyday work, organisations are better positioned to sustain innovation over time. The following section will explore how these embedded ideation practices contribute to broader innovation capabilities and organisational learning.

4.3 Idea Collection Methods

Ideation is a critical phase in the innovation process, serving as the bridge between strategic intent and the development of novel solutions. In large organizations, good ideas don’t just happen by chance, they need the right environment, clear methods, and support from leadership. This section looks at how companies can make ideation a regular part of everyday work, how to motivate people to share ideas, how to organize and follow through on those ideas, and how to make sure ideation supports the company’s overall strategy. It also introduces step-by-step processes that help manage ideation in a structured way.

4.3.1 Embedding Ideation in Organizational Culture

In large organizations, ideation is most effective when it becomes part of the everyday culture rather than being treated as a one-time event or the responsibility of a specific team. Creating an environment where employees feel encouraged to share ideas, where curiosity is supported, and where innovation is seen as a shared responsibility is essential for building a sustainable innovation capability.

One way to support continuous ideation is by building an “innovation engine” that operates alongside the company’s core business. This system involves employees at all levels and is supported by leadership, coaching, and structured processes. It helps embed innovation into daily routines and encourages contributions from across the organization. Frontline employees are often closest to customers and operations, making them well-positioned to identify opportunities for improvement. Midlevel managers act as facilitators who help shape and connect ideas, while senior leaders provide strategic direction and ensure that innovation is prioritized across the organization (Bensaou, 2021:67–132).

Organizational systems also play a key role in supporting ideation. These include open communication channels, cross-functional collaboration, and tools for capturing and developing ideas. In large companies, it is especially important to reduce barriers between departments so that ideas can move freely and benefit from diverse perspectives. Leadership must also promote a shared vision for innovation and create a climate of trust and openness where employees feel safe to contribute. These elements are essential for building a culture that supports high-involvement innovation and continuous learning (Tidd & Bessant, 2020:165–203).

When ideation becomes a regular part of how the organization works, it leads to a steady flow of ideas that are more relevant, practical, and aligned with business goals. This cultural foundation is essential for long-term innovation success.

4.3.2 Motivation and Engagement in Ideation

Motivation plays a central role in encouraging individuals to participate in ideation activities. While external rewards can influence short-term behaviour, long-term engagement in creative work is more effectively driven by intrinsic motivation.

Understanding what motivates individuals to generate and share ideas is essential for building a sustainable ideation culture within organizations (Pink, 2009:88–90).

Intrinsic motivation is supported by three key elements: autonomy, mastery, and purpose. Autonomy refers to the freedom individuals have to choose how they approach their work. When people are given control over their tasks, time, techniques, and team, they are more likely to take initiative and explore new ideas. Mastery is the desire to improve and develop skills. It is supported by environments that offer challenges, opportunities for learning, and feedback that helps individuals grow. Purpose refers to the sense of contributing to something larger than oneself. When individuals understand how their work connects to a broader mission, they are more likely to stay engaged and committed to innovation (Pink, 2009:90–137).

These three elements form the foundation of what Pink describes as Motivation 3.0. This model contrasts with traditional management approaches based on control and external incentives. Motivation 3.0 emphasizes the importance of internal drivers in fostering creativity and innovation. Organizations that support autonomy through flexible work arrangements, promote mastery through continuous learning, and communicate a clear sense of purpose are more likely to see sustained engagement in ideation activities (Pink, 2009:137–145). Figure 19 below shows Motivation 3.0 Self Determination Theory (SDT).

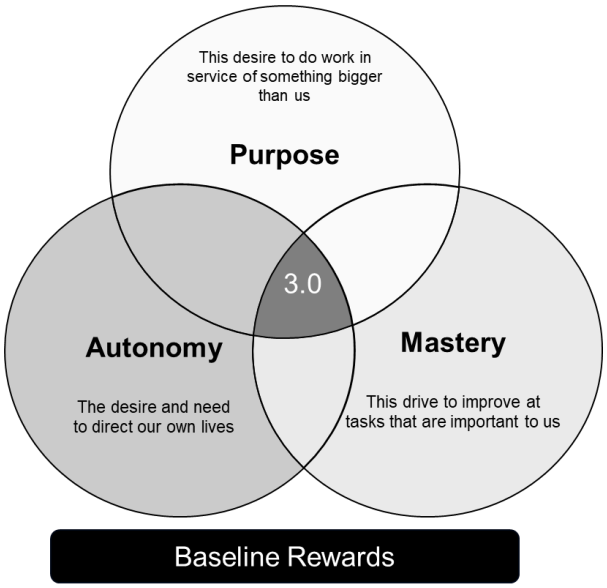

Figure 19. Motivation 3.0 Self Determination Theory (SDT) (Pink, 2009)

This visual can be used to illustrate how autonomy, mastery, and purpose interact to create the conditions for intrinsic motivation. It may take the form of a Venn diagram or a layered model that shows how these elements support ideation.

By designing work environments that meet these psychological needs, organizations can unlock the creative potential of their employees. This approach not only improves the quality of ideas but also contributes to a more engaged and innovative workforce (Pink, 2009:145–153).

4.3.3 Structuring and Executing Ideas

Generating ideas is only the first step in the innovation process. Without a clear structure and disciplined execution, even the most promising ideas may never be realized. In large organizations, the ability to move from ideation to implementation depends on how well ideas are captured, prioritized, and translated into action. This requires systems, routines, and leadership that support follow-through and accountability (Tidd & Bessant, 2020:115–118).

One approach to managing this transition is to break ideas down into actionable steps. Belsky introduces the Action Method, a framework that encourages individuals and teams to convert ideas into specific tasks, assign responsibility, and track progress. This method emphasizes the importance of maintaining momentum by focusing on what can be done immediately, rather than waiting for perfect conditions. It also highlights the need to manage energy and attention across multiple projects, ensuring that creative efforts are not lost in the shuffle of daily operations (Belsky, 2010:19–45).

Prioritization is another key element in structuring ideation. Organizations often face a flood of ideas, but limited resources to pursue them. Effective prioritization involves evaluating ideas based on strategic fit, feasibility, and potential impact. This process can be supported by tools such as scoring models, innovation funnels, and portfolio management systems. These tools help decision-makers balance short-term opportunities with long-term goals and ensure that resources are allocated to the most promising initiatives (Tidd & Bessant, 2020:148–153).

Execution also requires a mindset that values completion. Belsky argues that creative professionals often struggle with follow-through, not because of a lack of ideas, but

because of a lack of systems to support execution. He emphasizes the importance of rituals, constraints, and visual organization to keep projects moving forward. These practices help teams stay focused, reduce procrastination, and build a culture of accountability around innovation (Belsky, 2010:46-67).

By combining structured methods with a culture that supports action, organizations can improve their ability to turn ideas into outcomes. This not only increases the return on ideation efforts but also strengthens the organization's overall innovation capability (Tidd & Bessant, 2020:153–157).

4.3.4 Strategic Alignment of Ideation

Ideation is most effective when it is aligned with an organization's strategic goals. Without this alignment, even high-quality ideas may fail to contribute meaningfully to innovation outcomes or long-term performance. Strategic alignment ensures that ideation efforts are not isolated or ad hoc but instead support the broader direction and priorities of the organization. This connection between strategy and ideation helps focus creative efforts, improves resource allocation, and increases the likelihood that ideas will be implemented and scaled (Keupp et al., 2012:368–370).

Strategic alignment involves both top-down and bottom-up processes. On one hand, leadership must clearly communicate the organization's innovation goals and strategic priorities. On the other hand, employees at all levels should be encouraged to contribute ideas that support these goals. This dual approach ensures that ideation is both inclusive and purposeful. It also helps avoid the common pitfall of idea overload, where too many unrelated ideas compete for limited attention and resources (Keupp et al., 2012:374–376).

To support alignment, organizations can implement structured evaluation criteria that reflect strategic objectives. These criteria help filter and prioritize ideas based on their relevance, feasibility, and potential impact. Tools such as innovation portfolios, strategic roadmaps, and idea scoring systems can guide decision-making and ensure that selected ideas are consistent with the firm's long-term vision. This approach also enables better integration of ideation into formal innovation processes and performance measurement systems (Keupp et al., 2012:377–379).

Strategic alignment also requires adaptability. As market conditions and organizational priorities evolve, ideation systems must remain flexible. This means regularly reviewing strategic goals, updating evaluation criteria, and ensuring that ideation platforms and processes remain responsive to change. By embedding ideation within a dynamic strategic framework, organizations can maintain relevance and resilience in their innovation efforts (Keupp et al., 2012:379–380).

4.3.5 Process Models for Ideation

Ideation is often perceived as a spontaneous or creative activity, but in practice, it benefits significantly from structured processes. Process models for ideation help organizations manage idea generation, evaluation, and implementation in a systematic and repeatable way. These models provide a framework for guiding teams through the stages of ideation, ensuring that creativity is balanced with focus and follow-through (Mikelsone et al., 2022:2-4).

One such model is the four-step idea management model. Designed to support the reinvention or redefinition of value propositions in business models. It includes four sequential stages: understanding the customer through persona development, collecting and organizing ideas, enriching value definitions using trends and evaluation criteria, and evaluating and selecting the most promising ideas. Each step is supported by specific tools and methods, such as mind mapping, dot voting, and persona canvases, which help structure the ideation process and increase participant engagement (Mikelsone et al., 2022:11–13). The four steps of the model are summarized below in the Table 7.

Table 7. Four-Step Idea Management Sequencing Approach (Mikelsone et al, 2022)

Step	Title	Purpose	Key Activities and Tools
1	Warm-up / Understand Customer	To explore customer needs and values using personas	Persona Canvas, Imagine Persona, lifestyle questions, value contrast mapping.
2	Summarize Values	To collect, sort, and group ideas into value categories	Value listing, top 10 selection, grouping into main and sub-values.
3	Enrich Value Definitions	To refine value descriptions using trends and evaluation criteria	Trend watching, value description enhancement, criteria-based evaluation (e.g., SUCCESs)

4	Evaluate Values	To assess and select the most promising value ideas	“How-Now-Wow” matrix, Dot Voting, stakeholder feedback.

The strength of this model lies in its adaptability. It can be applied in both in-person and virtual environments, making it suitable for hybrid and remote teams. The model also emphasizes iteration, allowing teams to revisit earlier stages if the outcomes do not meet expectations. This flexibility supports continuous improvement and ensures that the ideation process remains aligned with evolving business needs (Mikelsone et al., 2022:6–7).

In addition to improving the quality of ideas, structured ideation processes like the four-step model enhance collaboration, transparency, and accountability. They provide a shared language and set of expectations for participants, which helps reduce ambiguity and fosters a more inclusive and productive ideation environment. By embedding such models into their innovation practices, organizations can increase the effectiveness and consistency of their ideation efforts (Mikelsone et al., 2022:14–15).

This section has explored the key methods and practices that support high-quality ideation in large organizations. It began by examining how ideation can be embedded into organizational culture through leadership, systems, and employee involvement. It then discussed the role of intrinsic motivation—autonomy, mastery, and purpose—in encouraging individuals to contribute ideas. The section also addressed how ideas can be structured and executed through prioritization, action systems, and follow-through. Furthermore, it emphasized the importance of aligning ideation with strategic goals and concluded with a review of structured process models that guide ideation from generation to implementation. Together, these perspectives highlight that effective ideation is not only a creative act but also a managed and measurable process. The next section will examine how organizations evaluate and select ideas, focusing on the tools and criteria used to identify the most promising opportunities for innovation.

4.4 Idea Selection Methods

While ideation generates a wide range of potential solutions, the success of innovation depends on the ability to identify and select the most promising ideas. Idea selection is a critical phase in the innovation process, as it determines which ideas move forward for development and implementation.

This section builds on the ideation practices discussed in the previous section and focuses on how organizations evaluate, prioritize, and choose ideas that align with strategic goals and deliver value. A structured and transparent selection process helps ensure that resources are allocated effectively and that innovation efforts are both impactful and sustainable. The following subsections explore the criteria used to evaluate ideas, the tools and techniques applied in selection, the human and contextual factors that influence decision-making, and how idea selection is integrated into broader innovation systems.

4.4.1 Criteria for Evaluating Ideas

Selecting the most promising ideas requires a clear and consistent set of evaluation criteria. These criteria help organizations assess the potential value, feasibility, and alignment of ideas with strategic goals. A structured evaluation framework also supports transparency and objectivity in decision-making, especially in large organizations where idea selection must balance creativity with business relevance and operational constraints (Stevanovic et al., 2015:1–2).

A multi-level evaluation framework can help organizations assess ideas more consistently and transparently. The model proposed by Stevanovic et al. includes four levels: screening, qualitative and quantitative assessment, capacity factor assessment, and efficacy evaluation. Each level builds on the previous one, allowing for a gradual refinement of ideas based on increasingly specific criteria (Stevanovic et al., 2015:3–4). The model evaluates ideas across five key dimensions: technical, market, financial, customer, and social. Each dimension is supported by a set of attributes and guiding questions that help assessors determine the value of an idea. These attributes are scored on a 1–9 scale, with descriptive anchors to ensure consistency across evaluators (Stevanovic et al., 2015:4–6).

In addition to structured frameworks, idea evaluation also benefits from clearly defined criteria that reflect both creative and practical dimensions. Gomes et al. (2020) conducted a systematic review and identified nine commonly used criteria in the literature: novelty, viability, relevance, specificity, financial opportunity, variety, strategic alignment, high risk, and difficulty in implementation. These criteria reflect both the originality and the practical viability of ideas and are drawn from a broad base of academic sources (Gomes et al., 2020:6–7).

While these nine criteria offer a comprehensive view, the Office of Ideas and Innovation at the Federal University of Rio Grande do Norte (UFRN) adopted a refined set of four criteria for practical application. These were validated through a focus group and applied in a real-world crowdsourcing context. The selected criteria are novelty, feasibility, relevance, and specificity. These were chosen for their clarity, applicability, and alignment with the goals of the innovation office (Gomes et al., 2020:9–10).

Table 8. UFRN Criteria for Evaluating Ideas (*Gomes et al., 2020*)

Criterion	**Description**
Novelty	Measures originality and the potential to shift existing paradigms.
Feasibility	Assesses whether the idea is acceptable and implementable.
Relevance	Evaluates how well the idea addresses the identified problem.
Specificity	Considers the clarity, completeness, and communicability of the idea.

These criteria were selected for their ability to balance creativity with practical implementation. They provide a focused and validated framework for evaluating ideas in a structured and consistent manner, particularly in institutional or public sector environments where clarity and feasibility are critical.

4.4.2 Tools and Techniques for Idea Selection

Once evaluation criteria have been defined, organizations must apply appropriate tools and techniques to assess and prioritize ideas. These tools help ensure that the selection process is systematic, transparent, and collaborative. In large organizations or crowdsourced environments, where the volume of ideas can be high, structured tools are essential for managing complexity and supporting objective decision-making.

One widely used approach is the application of scoring models, where ideas are evaluated against a set of predefined attributes using a numerical scale. Stevanovic et al. (2015) propose a 1–9 scale to assess each attribute across five dimensions: technical, market, financial, customer, and social. The scores are then aggregated using a weighted formula to calculate an overall idea efficacy score. This method allows for both individual and group decision-making and supports the use of multi-attribute decision-making techniques such as Simple Additive Weighting (SAW) and the Analytic Hierarchy Process (AHP) (Stevanovic et al., 2015:6–8).

In the context of crowdsourcing, Gomes et al. (2020) emphasize the use of consensual analysis and multicriteria evaluation. Their model includes a final evaluation phase where ideas are assessed by a panel of evaluators using four core criteria: novelty, feasibility, relevance, and specificity. The evaluation is considered valid when there is agreement among evaluators, with a consensus threshold of 0.7 or higher. This approach ensures that selected ideas reflect a shared understanding and are not biased by individual preferences (Gomes et al., 2020:9–10). The tools used in the UFRN case study are summarized in Table 9. These include a popularity index, a technical filter, multicriteria evaluation, and consensual analysis.

Table 9. Tools used in the UFRN Idea evaluation model (Gomes et al., 2020).

Tool	Description	Purpose
Popularity Index	Measures crowd engagement through likes and comments.	To identify ideas with high community interest.
Technical Filter	Expert review of ideas that may not be popular but have institutional value.	To ensure valuable ideas are not overlooked.
Multicriteria Evaluation	Evaluates ideas using four criteria: novelty, feasibility, relevance, and specificity.	To assess idea quality based on defined metrics.
Consensual Analysis	Evaluators must reach a minimum agreement threshold (e.g., 0.7) for an idea to be accepted.	To ensure evaluator alignment and reduce bias.

While several structured decision-making tools exist for idea evaluation, such as the Simple Additive Weighting (SAW) and Analytic Hierarchy Process (AHP) methods proposed by Stevanovic et al. (2015), this thesis emphasizes the evaluation model applied at the Office of Ideas and Innovation at UFRN. The UFRN model was selected due to its practical validation in a real-world setting and its emphasis on collaborative, consensus-based evaluation. Unlike SAW and AHP, which require complex weighting and pairwise comparisons, the UFRN approach uses clearly defined criteria—novelty, feasibility, relevance, and specificity—and a consensus threshold to guide decision-making. This makes it more accessible and adaptable for organizations seeking to embed ideation into everyday practices while maintaining evaluation rigor. The model's simplicity, transparency, and empirical grounding make it particularly suitable for practical application.

4.4.3 Influencing Factors in Idea Evaluation

While structured tools and criteria are essential for evaluating ideas, the process is also shaped by a range of human and contextual factors. These factors can influence how evaluators interpret, score, and prioritize ideas, often introducing variability and bias into the decision-making process. Understanding these influences is critical for improving the consistency and fairness of idea selection (Gomes et al., 2020:6–7).

These influencing factors include both individual and organizational dimensions. At the individual level, factors such as the evaluator's ability to understand the idea, their motivation to participate, and whether they feel a sense of ownership over the idea can significantly affect the quality of evaluation. At the organizational level, the clarity of the problem, the quality of the idea's presentation, and the evaluator's knowledge of the organization's goals and context are equally important. Environmental conditions such as time pressure, workload, and the number of ideas to be reviewed can further impact evaluation quality (Gomes et al., 2020:6–7). These factors are summarized in Table 10.

Table 10. Factors That Influence the Evaluation of Ideas (Gomes et al., 2020)

Factor	**Description**
Sensemaking	Degree of understanding of the idea by evaluators
Idea Presentation	Clarity, attractiveness, and accessibility of the idea
Problem Clarity	How well the problem being addressed is defined
Work Conditions	Time pressure, workload, and stress affecting evaluators
Organizational Knowledge	Evaluator's understanding of the organization's goals and context
Requirements Understanding	Ability to apply evaluation criteria consistently
Motivation	Intrinsic motivation to participate in the evaluation process
Ownership	Whether the evaluator feels connected to or responsible for the idea
Evaluator Profile	Creativity, regulatory focus, and other personal traits
Idea Volume	Number of ideas being evaluated and time available for review

Recognizing and addressing these factors can help organizations improve the reliability and fairness of their evaluation processes. This may involve training evaluators, improving the clarity of idea submissions, or adjusting workloads to ensure sufficient time for thoughtful review. By accounting for these human and contextual influences,

organizations can strengthen the overall quality of their idea selection practices (Gomes et al., 2020:6–7).

4.4.4 Integrating Selection into Innovation Systems

Idea selection is most effective when it is embedded within a broader innovation system rather than treated as a standalone decision. Integration ensures that selected ideas are aligned with strategic objectives, supported by appropriate resources, and positioned for successful development and implementation. Structured innovation systems provide the necessary frameworks and checkpoints to guide ideas from evaluation through to execution.

The Stage-Gate model has long served as a standard framework for managing new product development. It structures innovation into a series of stages, each separated by decision gates where ideas are evaluated and selected for further development. However, this model was originally designed for incremental innovation in stable environments. Radical innovations, by contrast, often involve longer timeframes, higher uncertainty, and greater interdependence with external actors. These characteristics challenge the assumptions of the traditional Stage-Gate model and call for a more flexible and comprehensive approach (Bers et al., 2014:706–709).

To address these limitations, the Accelerated Radical Innovation (ARI) model extends the Stage-Gate framework by embedding idea selection into a more holistic innovation system. The ARI model introduces two additional stages—strategy development and organizational design—before and after the traditional Stage-Gate process. It also expands the innovation life cycle to include six periods, from early concept formation to post-launch maturity. Furthermore, the model incorporates four concurrent tracks: market/societal, scientific/technological, business/organizational, and innovation ecosystem. These tracks ensure that idea selection is informed by a wide range of strategic, technical, and contextual considerations (Bers et al., 2014:713–719).

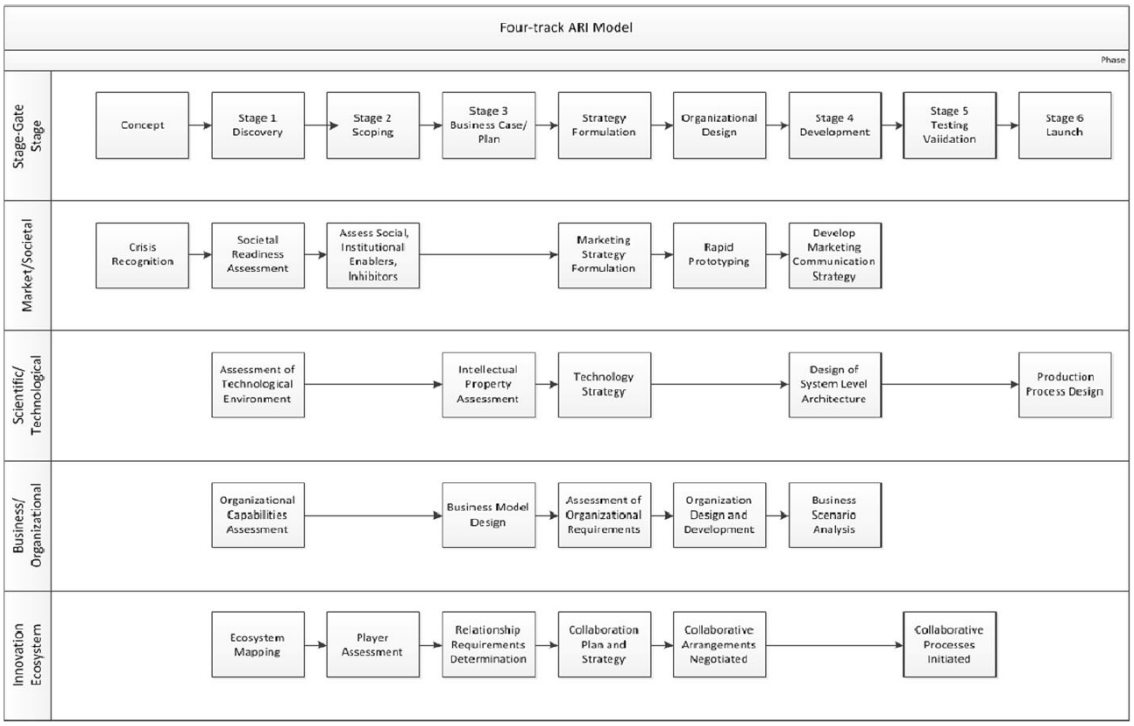

Figure 20. The Accelerated Radical Innovation (ARI) Model (Bers et al., 2014).

One of the key contributions of the ARI model is its emphasis on aligning idea selection with the full innovation life cycle. Rather than focusing solely on product development, the model considers the entire trajectory of innovation—from early concept formation through to post-launch refinement and ecosystem integration. This approach ensures that selected ideas are not only viable but also strategically positioned for long-term success. It also supports collaboration across multiple stakeholders by introducing tools such as discrete real options analysis, which allows for dynamic valuation and decision-making at each stage of the innovation process (Bers et al., 2014:725–726).

By embedding idea selection within a comprehensive innovation system, organizations can improve the quality, relevance, and impact of their innovation efforts. The ARI model demonstrates how structured processes can be adapted to accommodate the complexity and uncertainty of modern innovation environments, ensuring that idea selection is both rigorous and responsive to strategic needs.

Summing up, this section explained how ideas are evaluated and selected, including the criteria used, the tools applied, the human factors involved, and how selection fits into larger innovation systems. These insights help us understand what makes idea selection effective. Next section presents the conceptual framework developed for this thesis.

4.5 Conceptual Framework of This Thesis

This section presents the conceptual framework developed to guide the improvement of ideation quality within the case company's frontline innovation process. The framework integrates key insights from the literature review in Sections 4.2 to 4.4 that could be helpful in addressing the specific challenges identified in the current state analysis. It serves as a bridge between the theoretical foundation and the practical proposal developed in section 5.

The framework is built around three core components: ideation methods, idea collection methods, and idea selection methods. These components represent the critical stages of the ideation process and are essential for improving the quality of idea submissions. Each theme is supported by three specific areas of focus, which are grounded in relevant tools, models, and best practices from the literature. These elements were selected based on their relevance to the case company's context and their potential to address the weaknesses identified in the current state analysis.

The framework is summarized in Table 11 below. It outlines the topic, the specific areas of focus within each theme, and the key methods and sources that inform the development of the improvement proposal in the next section.

Table 11. Conceptual Framework of this study

Topic Area	Area of Focus	Key Methods & Sources
Ideation Methods	Cognitive Approaches to Ideation	Use divergent and convergent thinking to balance creativity and focus. Source: Guilford (1967), Kelley & Kelley (2013)
	Structured Ideation Techniques	Apply tools like brainstorming, brainwriting, mind mapping, SCAMPER, Six Thinking Hats. Source: de Villiers (2022), Tidd & Bessant (2020)
	Structured Collection and Execution Models	Use the Action Method and the Four-Step Idea Management Model. Source: Belsky (2010), Mikelsone et al. (2022)
Idea Collection Methods	Cultural and Structural Enablers	Build an innovation engine, cross-functional collaboration, and leadership support. Source: Bensaou (2021), Tidd & Bessant (2020)
	Motivation and Engagement	Leverage intrinsic motivation through autonomy, mastery, and purpose. Source: Pink (2009)

	Embedding Ideation in Organizational Practice	Create psychological safety, use prototyping, and build creative confidence. Source: Kelley & Kelley (2013), Liedtka & Ogilvie (2011)
Idea Selection Methods	Evaluation Criteria and Frameworks	Method: Apply criteria like novelty, feasibility, relevance, and specificity. Source: Gomes et al. (2020)
	Decision-Making Tools and Techniques	Use tools like UFRN model, multi-level evaluation, SAW, AHP, and consensus analysis. Source: Stevanovic et al. (2015), Gomes et al. (2020)
	Integration into Innovation Systems	Embed the selection into Stage-Gate and/or ARI models for lifecycle alignment. Source: Cooper (2008), Bers et al. (2014)

The above developed conceptual framework structures the key elements of innovation process. The framework brings together key insights from ideation methods, idea collection methods, and idea selection methods within the innovation process. In the next section, this framework will be used to guide the proposal building, co-created together with company stakeholders, to strengthen the company's innovation efforts.

5 Building Proposal for Improvement of Ideation Quality Within the Case Company

This section presents a proposal aimed at improving the quality of idea submissions within the case company's frontline innovation process. The proposal merges the findings from the current state analysis (CSA) and the conceptual framework (CF) with practical insights from stakeholders through interviews collected in Data 2. This integrated approach ensures that the proposal is both theoretically applicable and practically relevant. The following sections describe the proposal-building process and introduce the initial proposal elements.

5.1 Overview of the Proposal Building Stage

The proposal-building process followed three key steps. First, the CSA results that identified critical weaknesses in the current ideation process and highlighted areas requiring improvement were revised together with the stakeholders. Second, relevant best practices and theoretical insights were reviewed together with the stakeholders. The conceptual framework developed in Section 4.4 guided this step, ensuring that the proposal is grounded in both practical and theoretical understandings. Third, a co-creation approach was employed to engage internal stakeholders through semi-structured interviews and collaborative discussions. Their input (Data 2) ensured shaped the proposal and that the proposed improvements are context-specific, actionable, and aligned with organizational needs.

5.2 Findings from Data 2 (pulling together CSA, CF and Data 2 for the Proposal)

This section presents the foundation for the proposal by showing the connections between the three sources of input: the current state analysis (CSA), the conceptual framework developed from literature, and the insights gathered from stakeholder co-creation sessions. These sources inspired the proposal building and also ensured that it is both theoretically grounded and practically relevant.

The CSA identified three main areas requiring improvement: ideation methods, idea collection methods, and idea selection methods. These areas were examined during the co-creation sessions, and several methods from the conceptual framework were discussed with stakeholders. While some of these methods were directly integrated into the proposed improvements, others were considered but not adopted due to contextual

constraints, resource limitations, or stakeholder preferences. To ensure transparency and completeness, Table 12 summarizes how each of the three focus areas is informed by the CSA, the conceptual framework, and stakeholder input and why certain methods were not selected for implementation.

Table 12. Key stakeholder suggestions (findings of Data 2) for proposal building in relation to findings from the CSA (Data 1) and the Conceptual Framework

*Key focus area from **CSA** (from **Data 1**)*	*Input from literature (**CF**)*	*Suggestions from stakeholders for the Proposal, summary (from **Data 2**)*	*Description of their suggestion (in detail)*	*Relevant CF Methods Discussed*
1.Ideation methods	Structured engagement processes and cognitive approaches to ideation (e.g., divergent/convergent thinking, structured techniques)	Implement regular, theme-specific campaigns to engage employees and provide clear expectations for idea submissions	Regular campaigns can help set clear expectations and align employee efforts with the company's strategic goals	Divergent/convergent thinking – discussed but not prioritized; stakeholders preferred campaign-based engagement
	Embedding ideation in organizational practice	Improve communication around idea status and innovation strategy	Clear communication can help build trust and encourages participation	Mind mapping, SCAMPER – discussed but not adopted due to lack of facilitation resources
2.Idea Collection Method	Clear roles and responsibilities; motivation and engagement (e.g., autonomy, mastery, purpose)	Establish dedicated roles for idea coaches with clear responsibilities and sufficient bandwidth to support idea submitters	Dedicated coaches can better support idea submitters and improve submission quality	Innovation engine concept – discussed but considered too broad for current scope
	Cultural and structural enablers	Implement periodic campaigns with awards to engage employees and recognize their contributions	Recognition motivates employees to participate and contribute high-quality ideas	Motivation 3.0 (autonomy, mastery, purpose) – adopted and integrated
3.Idea Selection Method	Evaluation criteria and structured decision-making tools (e.g., UFRN model, consensus analysis)	Develop a recognition system with both material and intrinsic rewards	Recognition reinforces positive behavior and builds trust in the process	UFRN model – discussed but not adopted; stakeholders preferred simpler recognition-based feedback

	Integration into innovation systems (e.g., Stage-Gate, ARI)	Create a transparent communication structure to keep employees informed about the status and selection of their ideas	Transparency in the selection process can build trust and ensure employees are aware of how their ideas are being evaluated	Stage-Gate and ARI models – acknowledged but not directly applied due to complexity

As shown in Table 12, the first focus area, ideation methods, was found to lack structured engagement mechanisms. The CSA revealed that the absence of regular campaigns and unclear communication around innovation strategy contributed to low participation and misaligned idea submissions. Literature emphasizes the importance of structured engagement, such as theme-specific campaigns, to align employee contributions with strategic goals. Stakeholders supported this view and proposed the implementation of regular campaigns with clearly defined themes and objectives. They also recommended improving transparency around idea status and selection processes to build trust and encourage participation.

The second focus area, idea collection methods, was hindered by unclear roles and limited capacity among those responsible for supporting idea submitters. The CSA highlighted that idea coaches were often overburdened and lacked the time or clarity to effectively guide submissions. Literature supports the need for clearly defined roles and intrinsic motivators to enhance idea quality. Stakeholders suggested the establishment of dedicated idea coach roles with sufficient time allocation and training. They also proposed the use of periodic campaigns with recognition elements to increase engagement and motivation among employees.

The third focus area, idea selection methods, was characterized by inconsistent evaluation practices and a lack of recognition for contributors. The CSA showed that ideas were often archived without clear feedback, leading to frustration and disengagement. Literature recommends transparent evaluation frameworks and recognition systems to improve trust and motivation. Stakeholders proposed the development of a recognition system that includes both material and intrinsic rewards. They also emphasized the need for clear communication regarding the status and outcomes of submitted ideas.

Together, these insights form the foundation for the initial proposal in the next section. The proposal addresses the identified weaknesses by introducing actionable improvements that supports transparency and motivation in the ideation process.

5.3 Initial Proposal

This section presents the initial proposal for improving ideation quality within the case company's frontline innovation process. It addresses three key areas identified earlier: ideation methods, idea collection, and idea selection.

5.3.1 Element 1: Ideation Methods via Structured Campaign Activities

The first element focuses on enhancing ideation methods by introducing structured campaign activities. These campaigns should be aligned with the company's strategic objectives and communicated through internal channels. Training and support materials should be provided to help employees understand the campaign themes and how to submit high-quality ideas. This approach is expected to increase participation, improve idea relevance, and foster a culture of innovation.

The CSA revealed that the absence of planned, theme-specific campaigns contributed to low employee engagement and a lack of clarity around what types of ideas were expected. This resulted in a low volume of idea submissions and a misalignment between submitted ideas and the company's strategic priorities.

To address this, the proposal recommends the implementation of *a yearly calendar of ideation campaigns*, each aligned with the case company's strategic objectives. These campaigns would be time-bound and centred around specific themes that reflect current business challenges or innovation goals. Each campaign would be clearly communicated through internal channels such as the intranet, email newsletters, and townhall meetings to ensure visibility and encourage participation across the organization. Employees would receive supporting materials and guidance to help them understand the campaign themes and how to submit high-quality, strategically aligned ideas. Table 13 below presents a concrete example of how such campaigns could be structured. This example includes both hypothetical and realistic elements to illustrate how the campaign framework might be applied in practice.

Table 13. Example Template: A Calendar of Ideation Campaigns.

Campaign Name	Theme	Timeline	Target Group	Roles Involved	Communication Channels	Expected Outcomes
SparkForward 2025	Improving Customer Experience	August-September 2025	All Energy Business Units	Campaign Manager, Idea Coaches, Evaluators	Intranet, Email, Viva Engage, Townhalls	30+ ideas, 3 shortlisted for implementation
GreenOps Challenge	Sustainable Operations	October 2025	Engine Power Plants BU	Campaign Manager, Sponsor, Idea Submitters	Spark Platform, BU Newsletter	15 ideas, 1 pilot project launched
Digital Boost Sprint	AI in Field Services	November 2025	Energy Services BU	Campaign Manager, SMEs, Idea Coaches	MS Teams, Spark, Innovation Portal	20 ideas, 5 evaluated, 2 selected for funding

In practice, each campaign would be initiated by a Campaign Manager in collaboration with business unit leadership. The manager would define the campaign's theme, timeline, and evaluation criteria, and assign key roles such as Idea Coaches, Evaluators, and Sponsors. Communication efforts would be coordinated to ensure that all employees are aware of the campaign and understand how to participate. Submissions would be made through the Spark platform, where Idea Coaches would provide support and feedback to help refine ideas. At the end of each campaign, evaluation sessions would be held to assess the ideas and select those with the highest potential for further development.

This structured approach transforms ideation from an *ad hoc* activity into a deliberate and strategic process. It is expected to increase employee participation, improve the quality and relevance of submitted ideas, and foster a more transparent and inclusive innovation culture across the organization.

5.3.2 Element 2: Idea Collection Methods via Dedicated Idea Coach Roles

The second element addresses the need to improve the idea collection process by establishing *dedicated Idea Coach roles*. To support their work, Idea Coaches would be equipped with a standardized toolkit, including templates, evaluation criteria, and communication guidelines. A peer network or community of practice would also be established to allow coaches to share experiences, challenges, and best practices across business units.

The CSA revealed that individuals currently assigned as Idea Coaches often hold this responsibility in addition to their primary roles, which limits their availability and capacity

to support idea submitters effectively. This lack of dedicated support has led to delays in feedback, inconsistent guidance, and a general decline in the quality of idea submissions.

To address this issue, the proposal recommends the formal creation of dedicated Idea Coach roles within each business unit. These roles would be clearly defined, with specific responsibilities and time allocations to ensure that coaches can actively support idea submitters throughout the ideation process. Table 14 below presents a practical example of how the dedicated Idea Coach role could be structured and implemented within the case company.

Table 14. Example: Role descriptions of Dedicated Idea Coaches.

Business Unit	Assigned Idea Coach	Time Allocation	Key Responsibilities	Support Tools	Expected Outcomes
Engine Power Plants	Senior Engineer, BU Ops	20% of weekly hours	Guide idea submitters, review drafts, coordinate evaluations, ensure timely feedback	Spark platform, Coaching Toolkit	Improved idea quality, faster feedback, higher engagement
Energy Services	Innovation Specialist	30% of weekly hours	Host ideation clinics, mentor submitters, liaise with evaluators and campaign managers	Spark, MS Teams, Idea Templates	Increased submissions, better alignment with strategy
Energy Storage & Optimization	Product Manager	25% of weekly hours	Provide strategic alignment, support campaign execution, track idea progress	Spark, Campaign Dashboard	More ideas selected for implementation, improved visibility

In practice, each business unit would nominate a qualified individual to serve as an Idea Coach, based on their experience, communication skills, and familiarity with the innovation process. These individuals would receive onboarding and training to ensure consistency in how they support idea submitters. Their responsibilities would include reviewing idea drafts, providing constructive feedback, facilitating discussions during the Community Discussion phase, and coordinating with evaluators during the selection process.

By defining these roles, the case company can ensure that idea submitters receive the guidance they need to develop high-quality, strategically aligned ideas. These roles are expected to improve the overall throughput and effectiveness of the ideation process, while also fostering a more supportive and innovation-driven culture.

5.3.3 Element 3: Recognition System

The third element focuses on enhancing the idea selection process through the introduction of a structured recognition system. Four recognition tiers would correspond to a specific stage in the process and would be associated with appropriate forms of acknowledgment. For example, the Bronze tier would be triggered when an idea is accepted into the Community Discussion phase and would involve an automated thank-you message and a digital badge. The Gold tier would involve more formal recognition, such as a certificate and an opportunity to participate in the implementation team. The highest level, Platinum, would be reserved for ideas that result in measurable business or customer value and would be celebrated through company-wide events or awards.

The CSA revealed that idea submitters often received little or no feedback or acknowledgment, even in cases where their ideas were implemented. This lack of recognition has contributed to disengagement, reduced motivation, and a general mistrust in the ideation platform.

To address this issue, the proposal recommends the introduction of a recognition system that incorporates both intrinsic and extrinsic rewards. This system is designed to acknowledge employee contributions at various stages of the ideation process, from initial submission to final implementation. Table 15 below presents a practical example of how such a recognition system could be structured and applied within the case company.

Table 15. Example: Recognition System for Idea Submitters.

Recognition Tier	Trigger Event	Type of Reward	Delivery Method	Responsible Role	Expected Impact
Bronze	Submission of an idea accepted for review	Digital badge and thank-you message	Spark platform and automated notification	Idea Coach	Encourages participation and builds early engagement
Silver	Idea shortlisted or positively evaluated	Recognition during team meetings and internal newsletters	Team meetings, Yammer, and newsletter	Campaign Manager	Reinforces quality contributions and increases visibility
Gold	Idea selected for implementation	Certificate, internal feature story, and invitation to participate in implementation	Innovation portal and internal events	Innovation Lead and Business Unit Manager	Builds trust, celebrates impact, and motivates future contributions
Platinum	Idea implemented with	Material reward, such as gift cards or	Annual innovation	Human Resources and Innovation	Institutionalizes innovation and aligns with

	measurable impact	points, and formal recognition at company events	awards and HR system	Steering Group	performance culture

In practice, the recognition system would be integrated into the Spark platform and linked to key milestones in the idea lifecycle. As ideas progress through the various stages, from submission to evaluation and implementation, submitters would receive timely and meaningful recognition. The system would be designed to ensure transparency, consistency, and inclusivity, so that all contributors feel valued regardless of the final outcome of their idea.

By implementing this recognition system, the case company can foster a more inclusive and motivating environment for ideation. This approach not only encourages employees to contribute ideas but also reinforces the value of their input, even if their ideas are not ultimately selected. Over time, this system is expected to increase trust in the process, improve the quality of submissions, and strengthen the overall innovation culture within the organization.

5.4 Summary of the Initial Proposal

This section summarizes the initial proposal developed to improve the quality of ideation within the case company's frontline innovation process.

The first element of the proposal introduces a systematic approach to organizing ideation through *time-bound, theme-specific campaigns*. These campaigns are designed to align with the company's strategic objectives and provide employees with clear expectations and guidance for submitting ideas. The campaigns are intended to increase participation, improve the relevance of submissions, and foster a more transparent and engaging ideation culture.

The second element strengthens the support system for idea submitters by establishing clearly *defined and resourced Idea Coach roles* within each business unit. They will ensure that employees receive timely and constructive feedback on their submissions. This structure is expected to enhance the quality of ideas, reduce delays in the process, and build internal capability for managing ideation activities.

The third element introduces *a recognition framework* to acknowledge employee contributions throughout the ideation process. The system includes both intrinsic and extrinsic rewards, ranging from digital badges and internal acknowledgments to participation in implementation and formal awards. This approach is designed to increase motivation, build trust in the process, and reinforce a culture of innovation and appreciation. Table 16 below provides a consolidated overview of the initial proposal elements, their focus areas, key components, and expected outcomes.

Table 16. Summary of the initial proposal, with key elements and their components.

Proposal Element	Focus Area	Key Components	Expected Outcomes
Ideation Methods via Structured Campaign Activities	Ideation Methods	Yearly calendar of campaigns, theme-specific focus, internal communication, training materials	Increased participation, improved idea relevance, stronger innovation culture
Idea Collection via Dedicated Idea Coach Roles	Idea Collection Methods	Defined roles, time allocation, coaching toolkit, peer support network	Higher quality submissions, faster feedback, improved process ownership
Idea Selection via Recognition System	Idea Selection Methods	Multi-tiered recognition (Bronze to Platinum), intrinsic and extrinsic rewards, platform integration	Greater motivation, increased trust, stronger engagement and retention in ideation

Figure 21 below illustrates how each proposed improvement supports specific stages of the ideation journey and contributes to a more cohesive and effective innovation system

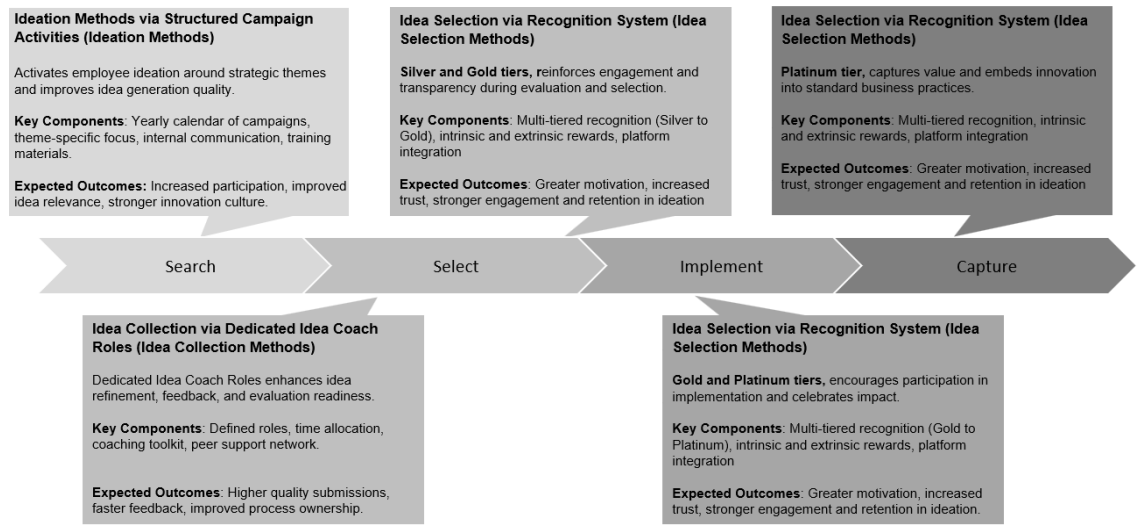

Figure 21. Integration of Proposal Elements into the Frontline Innovation Process.

Figure 21 maps the three proposal elements: structured campaigns, dedicated idea coaches, and a recognition system, onto the four phases of the case company's frontline innovation process. The structured campaigns enhance the Search phase by guiding idea generation. Dedicated idea coaches support the Select phase by improving idea quality and evaluation. The recognition system reinforces the Implement and Capture phases by motivating participation and acknowledging contributions, thereby closing the loop and sustaining engagement.

In the context of this thesis, innovation management systems such as ISO 56002:2019 provide the necessary structure to support ideation methods. By embedding ideation into the broader innovation system, organizations can ensure that idea generation is not *ad hoc*, but strategically aligned, well-resourced, and continuously improved. This perspective complements the ISO framework by underscoring the human and contextual dimensions of innovation management, which are essential for translating strategy into action.

The next section presents the validation of this initial proposal through stakeholder feedback and outlines the final refinements made to ensure its feasibility and alignment with organizational needs.

6 Validation of the Proposal

This section presents the results of validating the initial proposal. It includes feedback from stakeholders and the improvements made based on their input. The final proposal, along with key actions for implementation, is also provided.

6.1 Overview of the Validation Stage

The purpose of the validation stage was to assess the feasibility, relevance, and alignment of the proposed improvements with the case company's innovation process.

The validation was conducted through expert interviews with three internal stakeholders, each holding distinct roles within the case company's innovation activities. These stakeholders were selected based on their involvement in the ideation process and their strategic and/or operational responsibilities in innovation. Their diverse perspectives provided a comprehensive view of the proposal's applicability and potential impact.

The validation interviews were conducted online as semi-structured interviews, each lasting approximately 45–60 minutes. The interviews focused on the three core elements of the initial proposal: (1) structured campaign activities, (2) dedicated idea coach roles, and (3) a recognition system. Stakeholders were asked to evaluate the relevance, feasibility, and potential challenges of each element, as well as to suggest improvements.

The feedback collected during these interviews forms the basis for the developments presented in Section 6.2. These developments reflect the stakeholders' recommendations, which were used to refine the proposal and ensure its alignment with the case company's needs. Section 6.3 presents the final version of the proposal, while Section 6.4 outlines recommendations and an action plan for implementation.

6.2 Developments to the Proposal (based on Data Collection 3)

The validation was conducted through expert interviews with three internal stakeholders, all of whom hold key roles in the case company's innovation activities. These interviews were conducted online and documented through meeting notes. The interviews followed a semi-structured format and focused on evaluating the three core elements of the initial

proposal: structured campaign activities, dedicated idea coach roles, and a recognition system. Stakeholders were asked to assess the relevance, feasibility, and potential challenges of each element, and to suggest improvements based on their experience and strategic insight.

Overall, the feedback was supportive of the proposal's direction and confirmed its alignment with the company's innovation strategy. Stakeholders emphasized the importance of leadership commitment, clear communication, and support for practical implementation. Their input was used to refine the proposal elements, ensuring they are both relevant and actionable. The following subsections present the specific developments made to each element of the proposal.

6.2.1 Developments to Element 1

The first element of the proposal focused on introducing structured, theme-specific ideation campaigns to improve engagement and align idea submissions with the case company's strategic objectives. During the validation interviews, all three stakeholders expressed support for this approach and confirmed its relevance in the current organizational context.

> *"Successful innovation often requires deliberate efforts and visibility to drive the process forward."* (Stakeholder 14)

Stakeholder 14 emphasized the importance of deliberate effort and visibility to drive innovation. They agreed that structured campaigns could help overcome the current lack of awareness and engagement, particularly if supported by clear communication and leadership endorsement. They also suggested creating a community space for innovators to interact and provide feedback outside of formal campaigns, which could further enhance engagement and idea quality.

> *"Campaigns need to be attractive and relevant to engage users and improve the quality of ideas submitted."* (Stakeholder 15)

Stakeholder 15 highlighted the need for campaigns to be attractive and relevant to employees. They noted that campaign themes should resonate with employees' day-to-day work and strategic priorities to ensure meaningful participation. Additionally, they pointed out the risk of employee fatigue due to workload and stressed the importance of leadership commitment to support campaign activities.

> *"Campaigns resonate better with the organization and have a higher success rate."* (Stakeholder 16)

Stakeholder 16 agreed that structured campaigns are more effective than open channels. They noted that campaigns resonate better with the organization and have a higher success rate. However, they identified several challenges in running ideation campaigns, such as the ability to identify the return on investment, overwhelming number of campaigns, and the need to coordinate with other business units. They also discussed the lack of resources and prioritization as potential obstacles. Finally, the need for a governance structure and strategic alignment was emphasized, suggesting that campaigns should be linked to a clear idea pipeline.

Based on the feedback from the three stakeholders, several refinements were made to the initial proposal to enhance the effectiveness of structured campaign activities. These refinements address key areas such as campaign design, leadership involvement, communication, and continuous engagement. Table 17 below summarizes the stakeholder feedback, and the corresponding developments made to the proposal.

Table 17. Summary of Stakeholder Feedback and Developments to Structured Campaign Activities.

Proposal Element	Stakeholder Feedback	Development to Proposal
Campaign themes and structure	Campaigns resonate better than open channels; must be relevant and not overwhelming	Themes to be co-developed with business units; campaigns spaced out to avoid fatigue
Leadership involvement	Leadership commitment is critical for visibility and engagement	Sponsor role added to each campaign; leaders to launch and endorse campaigns
Communication and awareness	Lack of awareness is a barrier; onboarding and internal comms needed	Campaigns included in onboarding materials and promoted via multiple channels
Continuous engagement	Need for informal space for idea sharing	Spark Community Forum proposed as a complementary feature

As shown in Table 17, the feedback emphasized the importance of aligning campaign themes with business priorities, ensuring leadership visibility, and improving communication and engagement mechanisms. These insights were directly translated into actionable refinements to ensure the campaigns are relevant, well-supported, and effectively communicated across the organization.

6.2.2 Developments to Element 2

The second element of the proposal focused on establishing dedicated Idea Coach roles to improve the quality and consistency of idea submissions. During the validation interviews, all three stakeholders expressed support for this element, acknowledging its potential to enhance the ideation process. However, they also raised important considerations regarding feasibility, time allocation, and organizational support.

> *"It's important that idea coaches are not just assigned but also empowered and supported to do the job well."* (Stakeholder 14)

Stakeholder 14 emphasized that assigning the role alone is not sufficient. For idea coaches to be effective, they must be empowered with the right tools, training, and recognition. They also stressed the importance of formalizing the role to ensure accountability and visibility within the organization.

> *"Idea coaches need to be well-connected and visible in the organization to really make a difference."* (Stakeholder 15)

Stakeholder 15 supported the concept but raised concerns about feasibility. They suggested that the time commitment should be realistic and manageable, proposing a reduced allocation of around 10%. They also noted that idea coaches should be individuals with strong internal networks and visibility to effectively support idea submitters.

> *"It's a good idea, but without proper resourcing and alignment with business goals, it won't be sustainable."* (Stakeholder 16)

Stakeholder 16 echoed the value of the role but cautioned that without adequate resourcing and alignment with strategic objectives, the initiative may not be sustainable. They recommended linking the role to business outcomes and ensuring it is supported by governance structures.

Based on this feedback, several refinements were made to the initial proposal. These refinements aim to ensure that the Idea Coach role is clearly defined, realistically scoped, and effectively supported across business units. Table 18 below summarizes the stakeholder feedback and the resulting developments to the proposal.

Table 18. Summary of Stakeholder Feedback and Developments to Dedicated Idea Coach Roles.

Proposal Element	Stakeholder Feedback	Development to Proposal
Role clarity and empowerment	Idea coaches must be empowered, trained, and recognized for their contributions	Define clear responsibilities; provide onboarding and recognition mechanisms
Time allocation	Time commitment must be realistic; 10% suggested as a starting point	Adjust time allocation per unit; allow flexibility based on role and workload
Visibility and networks	Coaches need strong internal networks and visibility to be effective	Encourage selection of well-connected individuals; support with internal communication
Strategic alignment	Role must be aligned with business outcomes and supported by governance	Link coach activities to campaign goals and innovation KPIs; integrate into governance

As shown in Table 18, the refinements address both structural and cultural aspects of the Idea Coach role. By ensuring that the role is well-defined, realistically scoped, and strategically aligned, the proposal aims to create a sustainable support system for idea submitters. These changes are expected to improve the quality of idea submissions, reduce delays in the ideation process, and foster a more engaged and capable innovation community within the case company.

6.2.3 Developments to Element 3

The third element of the proposal focused on introducing a structured recognition system to acknowledge employee contributions throughout the ideation process. During the validation interviews, all three stakeholders supported the idea, while offering practical suggestions to ensure the system is meaningful, inclusive, and easy to implement.

> *"Recognition doesn't always have to be monetary. Sometimes just being seen and acknowledged by your peers and leaders is enough."* (Stakeholder 14)

Stakeholder 14 emphasized the importance of non-monetary recognition, such as peer acknowledgment and leadership visibility. They noted that timely and visible recognition can be just as powerful as financial rewards in motivating employees.

> *"If we want people to take ideation seriously, we need to make sure their contributions are visible and part of their development conversations."* (Stakeholder 15)

Stakeholder 15 highlighted the need to integrate recognition into formal development processes, such as performance reviews or team meetings. They also stressed the importance of transparency and fairness in how recognition is awarded.

> *"It's a good idea, but it needs to be simple and fair. If it becomes too complex, people will lose interest."* (Stakeholder 16)

Stakeholder 16 supported the proposal but cautioned against overcomplicating the system. They recommended keeping the structure simple, consistent across units, and easy to understand to ensure long-term engagement.

Based on this feedback, several refinements were made to the initial proposal. These refinements aim to ensure that the recognition system is inclusive, transparent, and aligned with both individual motivation and organizational goals. Table 19 below summarizes the stakeholder feedback and the resulting developments to the proposal.

Table 19. Summary of Stakeholder Feedback and Developments to the Recognition System.

Proposal Element	Stakeholder Feedback	Development to Proposal
Type of recognition	Recognition should not be limited to monetary rewards	Include both intrinsic (e.g., visibility, certificates) and extrinsic (e.g., gift cards)
Visibility and integration	Recognition should be visible and tied to development conversations	Link recognition to team meetings, newsletters, and performance reviews
Simplicity and fairness	System must be simple, fair, and consistent across business units	Standardize criteria and communication; avoid overly complex reward structures

As shown in Table 19, the refinements ensure that the recognition system is both motivating and manageable. By combining visibility, fairness, and a mix of reward types, the system is expected to foster a stronger culture of innovation and increase trust in the ideation process. These changes aim to make employees feel valued for their contributions, regardless of whether their ideas are ultimately implemented.

The feedback collected during the validation stage provided valuable insights into the feasibility and relevance of the proposed improvements. Based on this input, the initial proposal was refined to better align with the case company's strategic goals, operational realities, and employee expectations. The next section presents the final version of the proposal, incorporating these refinements into a cohesive and actionable framework.

6.3 Final Proposal

This section presents the final proposal for improving the quality of ideation within the case company's frontline innovation process. The proposal has been refined based on feedback received during the validation stage. It now reflects the practical considerations and strategic priorities of the organization. The final proposal consists of three elements. These are structured campaign activities, dedicated Idea Coach roles, and a recognition system. Each element addresses specific challenges identified in the earlier stages of the study and is designed to support a more effective and sustainable ideation process.

This section presents an overview of the final proposal elements that were refined based on the feedback received during the validation stage. The proposal consists of three elements, each addressing a specific area of improvement identified in the earlier stages of this study. Together, these elements aim to enhance the quality and consistency of ideation within the case company's frontline innovation process.

The *first* element focuses on the introduction of structured campaign activities. These campaigns are designed to guide idea generation by providing clear themes, timelines, and communication strategies. They are aligned with the strategic priorities of the case company and are intended to increase employee participation and ensure that submitted ideas are relevant and actionable.

The *second* element introduces dedicated Idea Coach roles. These roles are formalised within each business unit and are supported with clear responsibilities, time allocations, and tools. The purpose of this element is to ensure that idea submitters receive timely and constructive feedback, which in turn improves the quality of idea submissions and supports a more efficient evaluation process.

The *third* element proposes a recognition system that acknowledges employee contributions at different stages of the ideation process. This system includes both intrinsic and extrinsic forms of recognition and is designed to increase motivation, build trust in the process, and strengthen engagement across the organisation. The recognition system also supports transparency by linking rewards to clearly defined milestones in the idea lifecycle.

Together, these three elements form a coherent and actionable proposal that supports the case company's innovation goals. Table 20 below presents an overview of the three

elements, their focus areas, key components, and expected outcomes. This table consolidates the refined proposal into a single view to support clarity and alignment with the case company's innovation goals.

Table 20. Summary of the Final Proposal Elements

Proposal Element	Focus Area	Key Components	Expected Outcomes
Structured Campaign Activities	Ideation Methods	Yearly calendar of campaigns, theme-specific focus, internal communication	Increased participation, improved idea relevance, stronger innovation culture
Dedicated Idea Coach Roles	Idea Collection Methods	Defined roles, time allocation, coaching toolkit, peer support network	Higher quality submissions, faster feedback, improved process ownership
Recognition System	Idea Selection Methods	Multi-tiered recognition, intrinsic and extrinsic rewards, platform integration	Greater motivation, increased trust, stronger engagement and retention in ideation

As shown in Table 20, the final proposal integrates three elements that address the key weaknesses identified in the current state analysis. Each element is linked to a specific focus area and includes practical components that support implementation. The expected outcomes reflect the intended improvements in participation, quality, and engagement across the ideation process. Together, these elements form a coherent and actionable proposal that supports the case company's strategic innovation goals.

The final proposal presented in this section reflects the integration of stakeholder feedback and the refinement of the initial ideas developed earlier in the study. Each element has been adjusted to ensure practical relevance, strategic alignment, and feasibility within the case company's operational context. To support the implementation of this proposal, the next section outlines a set of recommendations and an action plan. These recommendations aim to assist the case company in implementing the proposal and maintaining its long-term viability.

6.4 Recommendations

This section outlines the key recommendations and a practical action plan to support the implementation of the final proposal. The recommendations are based on the feedback

received during the validation stage and reflect the organisational context and readiness for change.

First, it is recommended that the case company adopt a phased approach to implementing structured ideation campaigns. To ensure alignment with strategic priorities, each campaign should be co-developed with business units and scheduled to avoid overlap. A governance structure should be established to oversee campaign planning, execution, and evaluation. This structure would also help coordinate efforts across business units and manage resource allocation.

Second, the introduction of dedicated Idea Coach roles should begin with a pilot in one or two business units. This would allow the company to assess the resource requirements and refine the role before scaling. Clear role descriptions, time allocations, and support materials should be provided to ensure consistency and effectiveness.

Third, the recognition system should prioritise non-monetary forms of acknowledgment, such as feedback, visibility, and inclusion in team communications. Transparency and fairness must be ensured by linking recognition to clearly defined milestones in the ideation process. A simple framework should be developed and communicated to all participants.

Finally, it is recommended that the company define a clear innovation strategy and idea pipeline to support the long-term sustainability of the ideation process. This includes setting expectations for campaign outcomes, tracking idea progress, and integrating ideation into broader development discussions.

To support these recommendations, the findings and proposal from this thesis have been requested to be presented to the Vice President of Strategy and Business Development and the Vice President of Human Resources in the Energy Business. The purpose of this presentation is to provide visibility to the current innovation team’s efforts and to help build a business case for implementing the proposed improvements. It was concluded that the findings and proposal presented in this thesis offer a practical opportunity for the case company to strengthen its frontline innovation process.

To ensure successful implementation, leadership support will be essential. This includes not only endorsing the proposal but also allocating time and resources to allow the new practices to take root. Without visible and sustained leadership commitment, the initiative

may struggle to gain traction. It is also important that the proposal is clearly linked to the company's broader strategy, so that employees understand the purpose and value of their contributions.

Effective communication will play a key role in embedding the proposal into daily operations. Managers should be equipped to explain the changes, encourage participation, and reinforce the importance of ideation as a shared responsibility. While it is not yet clear whether the proposal will be integrated into a wider strategic initiative, it has the potential to serve as a foundation for broader innovation efforts.

In the current role as Service Manager for the Spark platform and a business advisor on the innovation process, the thesis researcher will continue to support the implementation of this proposal. Although not responsible for driving the changes, this role will contribute to onboarding, guidance, and ongoing support for any initiatives that emerge from this work

The next section concludes the thesis by summarising the key findings, reflecting on the outcome of the study, and outlining its implications for the case company.

7 Conclusion

This section reports the summary, thesis evaluation, and closing words for the thesis.

7.1 Executive Summary

This thesis focused on improving the quality of ideation within the frontline innovation process of Wärtsilä Energy (hereafter referred to as the case company). The case company, despite having a strong innovation culture and a user-friendly platform (Spark), faced challenges related to low engagement, unclear communication, and inconsistent evaluation practices. These issues hindered the effectiveness of its ideation pipeline and limited the strategic value of employee-submitted ideas.

To tackle this challenge, the study applied an applied action research approach, combining qualitative methods such as stakeholder interviews, document analysis, and platform data review. The research was conducted in three phases: a current state analysis (CSA), a literature-based conceptual framework, and a co-created proposal development process. The CSA revealed key weaknesses in ideation methods, idea collection practices, and idea selection processes. These findings were then mapped against best practices in innovation management, including ISO 56002, the Stage-Gate model, and frameworks for motivation and evaluation.

The outcome of the study is a three-part proposal aimed at improving ideation quality: (1) structured campaign activities to guide idea generation, (2) dedicated Idea Coach roles to support idea development, and (3) a recognition system to motivate and reward contributors. These elements were designed to align with the company's strategic goals and to embed ideation more deeply into everyday operations.

The proposal was validated through stakeholder interviews, which confirmed its relevance and feasibility. Based on the feedback, refinements were made to ensure practical implementation. These included adjustments to campaign planning, clearer role definitions for Idea Coaches, and a simplified, transparent recognition system. The final proposal is now ready for implementation and has been requested to be presented to the Vice President of Strategy and Business Development and the Vice President of Human Resources in the Energy Business. This presentation aims to support the innovation team and help build a business case for the proposed improvements.

7.2 Thesis Evaluation

This thesis set out to improve the quality of ideation within the frontline innovation process of the case company. The final proposal addresses the key weaknesses identified in the current state analysis and offers a practical, validated solution that is ready for implementation. While the research process was extended over time, the outcome remains relevant and aligned with the company's strategic needs.

One of the main challenges encountered during the thesis process was defining a clear and focused scope within the broad field of innovation. Innovation is a complex and expansive topic and narrowing it down to a manageable and meaningful focus area required significant effort. The turning point came after engaging with the book *Built to Innovate* by Ben Bensaou, which helped clarify the direction and structure of the study.

If one area were to be improved, it would be Section 4. The initial uncertainty around the focus area, shifting from innovation process models, Ideation Methods within the Innovation Process and then finally selecting on ideation methods, led to some inefficiencies and consumed valuable time. Although this did not affect the outcome, a more stable focus from the beginning would have allowed for a more streamlined process. Looking back, the thesis does not have a single standout strength, but rather a consistent effort across all sections.

7.3 Closing Words

Completing this thesis has been a transformative learning experience. Beyond the research and writing, it has taught me the value of persistence, structure, and the importance of aligning innovation with real-world needs. I now have a deeper appreciation for the complexity of organizational change and the role that thoughtful, inclusive ideation can play in driving it forward.

The process involved many starts and stops, and at times, the temptation to give up was strong. However, completing this thesis became a personal milestone—not only to contribute to the case company's innovation efforts but also to demonstrate to my children that learning and achievement are possible at any stage in life. Through this journey, I gained a solid foundation in innovation best practices, a deeper understanding

of the case company’s challenges, and a renewed appreciation for perseverance. The experience has been both professionally and personally rewarding.

To those who will follow in these steps—whether exploring innovation, ideation, or other evolving topics—I wish you courage, curiosity, and clarity. These topics will continue to evolve and require fresh perspectives. May your work build on what has come before and push the boundaries even further.

Good luck on your journey.

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Appendix 1. Data 1: Key Stakeholder Interview Questions

- What is the current strategy on Innovation?
- How is it different from before?
- How does the current ideation process support the strategy?
- What currently works and what does not?
- How satisfied are you with the current too (platform) to funnel ideas?
- What is the current status of the usage and experience of the platform?
- How actively have you been using (submitting, reading) the idea management platform?
- How was the tool introduced to you?
- What is good in the platform?
- What is not functioning technically or as a process on the platform?
- Which other tools do you use I your organization? How do you see those tools in comparison to Spark?
- If you could change one thing what would it be?

Appendix 2. Data 3: Validation of Proposal – Interview

- How relevant do you find the idea of introducing structured ideation campaigns in our current context?
- What types of themes or formats would be most effective for these campaigns?
- What challenges or risks do you foresee in launching and managing these campaigns?
- What would help ensure their success?
- How feasible is it to assign dedicated time for idea coaching in your business unit?
- What kind of support or training would idea coaches need to be effective?
- How can we ensure idea coaches are empowered and recognized for their role?
- Would this role add value to the ideation process from your perspective?
- What kind of recognition (intrinsic or extrinsic) would be most meaningful for idea submitters?
- How can we ensure the recognition process is transparent and fair?
- What risks or unintended consequences should we be aware of?
- How could recognition be linked to performance or development discussions?
- Does the proposal address the key weaknesses identified in the current ideation process?
- How well does it align with the company’s innovation strategy?
- What would you change, add, or remove from the proposal?
- What would be the most critical success factors for implementation?

Appendix 3. The Statement of the use of AI

WRITTEN STATEMENT on the use of AI-based tools in this thesis

by Albert Austin, the student of BI Master´s Degree Programme

Thesis title: Improving Ideation Quality within Wärtsilä Energy´s Frontline Innovation Process

According to the "Guidance for addressing the use of AI-based tools in studies at Metropolia Business School (for written submissions)" from August 2023, I make this statement on the use of AI-based tools in my submitted Master´s thesis.

1) Which AI-bases large language models or other AI-based tools I used

None

2) In which parts of the thesis which tools were used, and for which tasks (please make a list)

NA

3) What portion of the text was helped with these tools, for each use

NA

4) Which prompts were asked, exactly (please indicate the page number in the text where used)

NA

5) Here, I describe what continues an ethical and reliable use of AI-based tools that I used (use, for example, the recommended documents from "MBS Guidance" referred to above)

NA

6) Here, I describe how ethically and reliably I used the AI-based tools in my thesis submission

NA

This written statement makes part of my thesis and is done to help in evaluation and assessment.

Kirkkonummi, 31/05/2025
(*Data and place)*

(Signature)