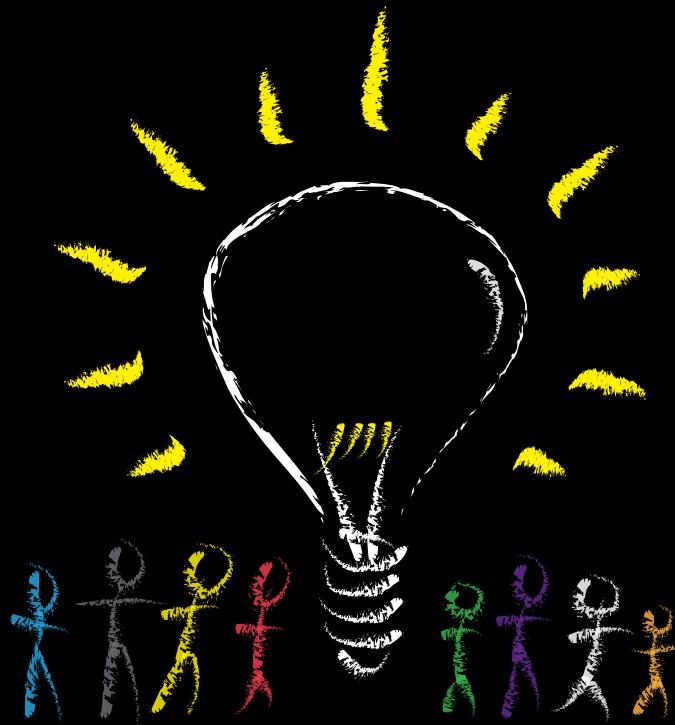


# INNOVATION MANAGEMENT SYSTEMS





# **INNOVATION MANAGEMENT SYSTEMS**



# The Authors

Saif Amer

Christian Beermann

Mattias Berglund

Klas Englund

Hanna Eriksson

Felix Fahlander

Alexander Nilsson

Simon Petrén

Elin Svensson

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# Prologue

There has been a steady increase of research within the area of innovation management as the issue has become more and more important to organizations during the last decade. This has led to the current development of a standardized way of innovation management. The Innovation Management Standard SIS -CEN/TS 16555 acts as a guideline when creating a system for innovation management, a so-called innovation management system. This book is an introduction, presentation and analysis of Part 1 of the standard.

The extent of which different aspects of innovation management are considered in organizations has been investigated through a survey. The survey was sent to innovation managers at numerous organizations. The result and analysis of this survey will be presented in the book.

There are also organizations that have come far in their innovation work and they could act as inspiration regarding how innovation can be worked with in different organizations. This book provides illustrative cases of how five organizations successfully work with different aspects of innovation today. It also presents examples of how innovation strategies and methods can be implemented, which aspects of it create challenges and what benefits there may be from working with innovation.

The authors of this book are nine master students, finishing their final year at the Product

Innovation Master Program at the KTH Royal Institute of Technology in Stockholm, Sweden. Being a central part in our direction of study we saw the need for investigating how innovation management systems could contribute to a more effective and efficient innovation work process. Our aim with the project was to identify how some organizations utilize innovation management systems and the possible benefits and drawbacks. We also provide our recommendations and reflections with hope to give the reader some useful advices when aiming to improve the innovation capability of their organization.

Enjoy your reading

The authors





# Chapter 1

## Introduction

# Introduction

Innovation is not a new objective for organizations. They have always strived to improve, develop and change their way of working. Being able to innovate on their products and processes is an important factor in order to be successful and competitive in the market. Even if innovation has been a topic for organizations for a long time, it is still a challenge for many to manage innovation in a successful way. Innovation management is a very complex task and organizations meet different obstacles in their innovation work. There is not a 'one-fits-all' solution of how the innovation management can be performed effectively<sup>1</sup>. The need for innovation can be difficult to identify because it often arises from long-term trends. These trends might be hard to identify as they can develop slowly and outside of the organization.<sup>2</sup>

Due to the complexity in managing innovation there has been a need for developing systems to manage innovation. To be clear about what is meant by innovation and innovation management systems these two concepts will be defined here:

## **Innovation:**

*“Implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations”*

1 J. Tidd and J. Bessant, *Managing innovation*

2 Goffin and R. Mitchell, *Innovation Management - strategy and implementation using the pentathlon framework*. Palgrave Macmillan 2010, 2nd edition. pp. 93

## **Innovation management system (IMS):**

*“Set of interrelated or interacting elements of an organization to establish innovation policies and objectives and processes to achieve those objectives”<sup>3</sup>*

According to a previously developed model for innovation management<sup>4</sup> three main driving forces can be identified as critical for an organization's innovation management system: the goals and strategies of the organization, needs and requirements from the customer and technological opportunities. The importance of performing well in all three forces should be stressed, in order to have a successful innovation management system.

In an attempt to create practical guidelines for successful innovation, current knowledge about applying a systematic and also even systemic management of innovation work has been used to develop the Innovation Management Standard SIS -CEN/TS 16555. This standard presents specific guidelines for innovation management systems (IMS) and is based on a mixture of research and experience from front-end innovation managers. Because of the comprehensive foundation in the standard we will use it as a representation of the recommendations that have been presented within this area.

In today's world of innovation, there are different opinions regarding the benefits of using standardized frameworks to work with innovation. One could ar-

3 SIS Standard

4 Touminen M., Piippo P., Ichimura T., Matsumoto Y. (1999) An analysis of innovation management systems characteristics. *International Journal of Production Economics*, vol. 60-61, pp. 135-143.

gue that innovation is based on creativity and having a systematic way of working with innovation may hamper the creative process. Common benefits that are usually related to standardization, e.g. optimization, control and assurance of quality, might not be applicable when it comes to innovation. It is impossible to optimize innovation simply because there is no defined best outcome when developing innovations. Other literature argues that innovation and standardization are not mutually exclusive. It is stated that in order to achieve a balance between innovation and standardization, there must be clear goals and objectives on how to work and at the same time freedom in the process and outcomes to allow creativity. It is important to understand that a standard for innovation is not intended to standardize the results but the process of achieving the results. This will guarantee that the outcomes are helpful and usable, but at the same time leave enough space to innovate and being creative.

In this book we have looked further into the practical usage of IMS. The definition and inclusion of what an actual IMS is can vary greatly between different organizations and companies. The purpose of this book is to analyze practical innovation management in organizations and understand how they correlate with the SIS CEN/TS 16555 standard. By comparing the findings from case studies with the guidelines in the SIS standard one could say we are comparing it to the accumulated knowledge in the area of innovation management. We hope to find similarities between the tools and methods that are presented in the standard and how they may correlate with the practical usage in real companies. The relevance and acknowledgement of the standard will also be discussed and analyzed.

What we aim to investigate and try to answer in this book can be summarized in these following questions:

- What are the similarities between innovation management as prescribed in the SIS standard and in the investigated organizations?
- How can the standard contribute to the innovation management in organizations?
- Is a standardized framework beneficial in innovation management?



# Chapter 2

## Presentation of the SIS standard



## SIS Innovation Management Systems

The Innovation Management Standard SIS-CEN/TS 16555 is an attempt to create a standardized framework for managing innovation. The standard started out with a draft from the countries of Scandinavia and is now an international collaboration of multiple organizations. The goal is to create a standardized model with ISO-certification within Innovation Management. ISO is an organization that certifies different standards within the areas of organization and process. The scope and design of the standard is developed to harmonize well with all the other management system standards that are presented by ISO e.g. ISO 9001, 14001, 27001, etc.

The founding purpose of the project is that EU considers innovation to be a key issue for European companies. A standard would ensure the flow and continuous innovation that is needed to support and help the companies to achieve a high level competitiveness and a sustainable long-term success. Since an innovation has such a wide range of consideration (both technological and non-technological), the stakeholders can be found in almost any economic activity.

The writing is an iterative process that proceeds with decisions regarding drafts and comments from included partners. The ultimate goal of the standard is to present a toolset that let companies and organizations improve any innovation and relating aspects.

As of now, the first part of the standard “Innovation Management System” has been finished and approved by CEN.

The complete CEN/TS 16555 will have the general title Innovation Management and consist of the following seven parts:

- Part 1: Innovation management system (the present document)
- Part 2: Strategic intelligence management
- Part 3: Innovation thinking
- Part 4: Intellectual property management
- Part 5: Collaboration management
- Part 6: Creativity management
- Part 7: Innovation management assessment
- Parts 2 to 7 are in preparation.

Part 1 of the Innovation Management Standard SIS-CEN/TS 16555 includes eleven sections, eight of them presenting topics about the IMS. The first three sections present general information. The other eight sections present a detailed explanation of guidelines and instructions of different aspects of the IMS developed. The conceptual overview of the IMS in the standard is illustrated below. The eleven sections vary greatly in size as some naturally are covering bigger areas. The following text is a summary to capture the essence of every section and give an easier understanding and overview of the standard.

### Section 1 - Scope

The Scope provides a summary of the standard and describes where and when it can be useful. It is also

stating that organizations may increase their awareness of an IMS, expand their innovative capacity and generate more value for the organization by using the standard. The outline of the management system in the document follows the PDCA (Plan-Do-Check-Act) structure, for easier integration with already existing business management systems (e.g EN ISO 9001, EN ISO 14001).

### Section 2 - Normative References

This section is work in progress for the standard and is not available by the time of writing this book.

### Section 3 - Terms and Definitions

The standard has two definitions and terms applied to the document:

**Innovation:**

“Implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations”

**Innovation management system (IMS):**

“Set of interrelated or interacting elements of an organization to establish innovation policies and objectives and processes to achieve those objectives”

### Section 4 - Context of organization

The context of an organization has been divided into two different sub topics in the standard:

#### Understanding the organization and its context

When understanding the context of the organization, management should determine both internal and external issues that are relevant to the purpose and the effects its IMS has on the ability to achieve desired outcomes. In order to identify challenges, the analysis should include different aspects:

- **Market Aspects:** Competitors, partners
- **Technical Aspects:** Intellectual property, science development
- **Political Aspects:** Legislation, regulations
- **Economic Aspects:** Macro-economic situation, tax reduction
- **Social Aspects:** Demographics, trends

The organization should also continuously analyze the future capabilities of the innovation management. This analysis should include the different aspects of:

- **Cultural aspects:** attitudes and commitment towards innovation at various levels of the organization; performance of internal collaboration
- **Capability aspects:** existing and needed competencies, facilities, equipment and investment capabilities (related to innovation)
- **Operational aspects:** business models, processes, products and services, including sustainability considerations
- **Performance aspects:** achievements and failures over the recent past

The organization should also continuously analyze the future capabilities of the innovation management.

This analyze should include the different aspects of:

- **Management practices:** existing and use of other management system standards
- **Cultural aspects:** such as attitudes and commitment towards innovation at various levels of the organization; performance of internal collaboration
- **Capability aspects:** existing and needed competencies, facilities, equipment and investment capabilities (related to innovation)
- **Operational aspects:** business models, processes, products and services, including sustainability considerations
- **Performance aspects:** achievements and failures over the recent past

### Understanding the needs and expectations of interested parties

In order to understand the needs and expectations of the interested parties, the organization needs to determine what is relevant to its IMS and then identify their different requirements, of the expectations and needs.

The interested parties are divided into external (e.g. partners, suppliers) and internal (e.g. employees, shareholders) and need to be consulted and involved in the identification process. It is also stated the importance of understanding the customer needs and users.

## Section 5 - Leadership for Innovation

The section “Leadership for innovation” is divided into several sub-areas: Culture, Leadership, Organization, and Vision and Strategy. These different processes give an overall view on how leadership for innovation addresses the mechanisms and capabilities of the organization.

A vision is needed for innovation and the strategy is a way to implement the vision. The deliverance of vision and change of culture in the organization is handled through managerial tools and instruments. The vision, strategy and policies needs to be documented, measured and communicated to concerned parties.

### Vision and strategy

The vision and strategy needs to include and communicate the ambition that the organization has within the innovation area. The vision is to set directions for the organization, challenge management and employees to work towards a specific goal and create a working environment that inspires employees to commit. The vision must provide a feasible target in terms of measuring the work progress. Employees should be given the opportunity to work towards the vision and not be constrained by the organizations current capabilities. The organization should create incentives and a positive work environment that enables employees to pursue their vision. The vision is to be deployed through the innovation strategy as an action plan for achieving the assigned vision. The action plan translates the vision into an innovation strategy, which is implemented through the hierarchy of the organization.

The strategy is outlined from the strategic fit between the firm’s internal analyze and the external analyze of

the environment. In the standard there are five important aspects that should be included in the strategy:

- An organization's capabilities and resources
- Definition of innovation
- Creating incentives to enable innovation among employees
- What kind of innovation is the primary focus
- How to handle intellectual property rights

The innovation vision, strategy and policies have to be available as documented information among employees and middle management. Moreover, the results should be properly measured and communicated within the organization and to external stakeholders.

**Leadership**

The innovation management standard needs to be pervaded in top management in order to create the sincerity it needs among employees. Top management has to ensure that the innovation vision and strategy are established and implemented across the entire organization. Creating a culture that supports innovation among employees requires both support and directives from top management. That can be tangible and intangible resources, communication tools, managerial support and continuous improvement of the IMS.

**Culture**

Top management should strive to foster an environment within the organization that enables and support innovation among employees. Innovation culture should be understood as a mindset, and each

person within the organization is responsible for contributing to its growth. Top management needs to provide support and directives in order to create the mindset of innovation culture among employees. The standard highlights some cultural aspects:

- **Idea support:** create incentive and encourage ideas through effective idea management
- **Collaboration:** cooperation across both internal and external stakeholders and among employees network. The organizations must provide means for communication both internally and externally
- **Communication:** support the exchange of ideas among employees
- **Failure tolerance:** since innovation comes with uncertainty and no idea is guaranteed success, the organization should encourage idea generation and focus on the learning aspects of failure

**Organization**

Top management needs to specify different responsibility areas and roles for employees for communication purposes within the organization. The organization should define the responsibility in two main areas; responsibility for a specific innovation project and responsibility for general innovation. Responsibility of a specific innovation project is assigned to a team or person after initiation of the innovation project. The responsibility of this team or person includes performing the project with specific innovation tools and reporting to the innovation management about progress. The responsible employees for general innovation are in control of operational planning, ensuring effective and efficient innovation manage-

ment, coordination across innovation projects and reporting given results to top management.

## Section 6 - Planning for innovation success

When planning for innovation success, there are two different areas that need to be addressed: Risks and Opportunities, and the Operational Planning.

### Risks and Opportunities

When an organization is evaluating the outline of an IMS, it should consider both internal and external influences. These can both be referred to the topics of sections 4 and 5. The organization should plan how to evaluate and the implementation of actions to handle the different areas of risk. It is also stated that in all activities, uncertainty and risk has to be in consideration. The areas and opportunities that need to be addressed are:

- Ensure the IMS can achieve its intended outcomes
- Prevent or reduce, undesired effects
- Achieve continual improvement

### Operational planning

When planning the operational activities of an organization, there is a need for functions and objectives. Both of these should be measured, documented and communicated to the involved parties.

It is important to allocate resources, identify driving factors and divide responsibilities that apply to the outline of the IMS. This conjures an increased chance of reaching a long- and short-term successful result of the innovation process.

## Section 7 - Innovation enabler/driving factors

The enablers and driving factors are divided into nine different areas:

### Organization of the roles and responsibilities

The organization should define the main responsibilities in context of the IMS, innovation management and innovation projects. These aspects are all dependent on different factors such as size, structure, skills, capabilities etc.

### Resources

The organization should allocate the resources necessary for the implementation, maintenance and continuous improvement of the IMS (e.g. human resources, facilities).

### Competence

Regarding the competence, the organization should determine key-persons working with development of innovation activities. This is needed to ensure that the right persons take actions to acquire the right competence and evaluate the effectiveness of the actions taken.

In order to extend the capacity of the IMS, the organization should strive to continuously improve the skills and competences of the key-persons and their involvement in the innovation strategy.

### Awareness

The employees that work with the control of the organization need to be motivated and have to understand the importance of the innovation process and its vision and strategy. They also need to understand the need to contribute to the IMS and the benefits of

improved performance. This is highly related to the level of innovation integrated in the organization culture.

**Communication**

The organization should establish internal and external communications relevant to the IMS, taking into consideration aspects of what to communicate, when, to whom and by whom, the provision of communication channels and the intended feedback.

**Documented information**

The IMS has to include the documents with the information necessary for effectiveness, evidence of performance and technical specification. The documentation should also be created, shared, identified and updated within the organization.

**Strategic human resources**

The Human Resource policy should be focused on fostering creativity, enabling jobs designed to allow variation and open interaction, provide incentives for innovation and encourage participation and representation in the innovation process. It is important to let personnel access relevant management information through the organization and innovation areas.

**Intellectual property and knowledge management**

The organization needs to have a policy and plan for handling Intellectual Property. The organization also needs to know how to handle intangible assets (e.g. knowledge and know how).

**Collaboration**

The internal and external collaboration in an organization needs to be defined through policies and documentation in the IMS. This can be done through dis-

seminating challenges or encouraging collaboration of idea development between persons and groups.

Collaboration and networking helps identifying ideas and different needs of partners and customers. The opportunities can derive from different sources of the process (e.g. adopting customer ideas, knowledge transfer networks).

**Section 8 - Innovation management process**

Chapter 8 is divided into innovation processes and assessing the results of the innovation process in the organization. The two main topics touch upon different aspects and key factors seen in the information boxes below.

**Innovation Process**

- Idea management system
- Development of innovations projects
- Protection and exploitation of the outcomes
- Market introduction

**Assessing the result of the innovation process**

- What results should be assessed and how often
- Who should do these assessments and against what should the focus be
- Financial and non-financial indicators for innovation results



A very crucial part in an organization's work with innovation is the generation and management of ideas. Without the generation of new ideas, innovations are not possible and without effective management one will not get the most out of the ideas. Chapter 8.1 in the SIS standard describes the innovation process.

The innovation process is a critical element in all innovation efforts, as it details how ideas are created, managed and commercialized in the organization. The initial step is the idea management. It defines how ideas are generated, captured and evaluated with the support of an underlying process. Having a process for the idea management in place is important in order to assure that new ideas are in line with the organization's goals and strategy. Ideas that cannot be utilized mean wasted resources and potentially frustrated employees, when their ideas are not considered. A systematic idea management process defines the following elements:

- Scope of the idea generation
- Frequency of the idea collection, evaluation and selection
- Idea protection

- Evaluation method and criteria

Furthermore it should be possible to record ideas and make them retrievable in the future, as not every idea is immediately realized but might be needed in the future. The Innovation management process is summarized in the next figure.

## Section 9 - Performance assessment of the innovation management system

It is important to make sure all important parts of the organization are working satisfactory. Therefore it is important to specify relevant indicators, monitoring methods and evaluation criteria such as:

- The Innovation Strategy
- The development of Innovation Enablers/Driving Factors
- The Innovation Process

The top management should also regularly review and keep track of the organizations IMS on their own to make sure it is working properly and that they have full understanding of its implications. A thorough assessment should touch upon:

- Ensuring actions has been taken on necessary tasks identified from earlier top management reviews Changes in external/internal environment requiring adaptation in the IMS
- Identification of opportunities and ways of continuously improving

### Section 10 - Improvement of the innovation management system

It is crucial that the organization keeps working and improving the IMS in order to stay competitive. In addition to all the areas and factors previously mentioned in the earlier sections, it is important to address and continuously work with these topics:

- Identification of deviations and how to handle these
- Clearly defined roadmap for where the organization is heading
- Continuous improvement and stimulation of learning and having good methods of communicating this

### Section 11 - Innovation management techniques

Different techniques in innovation management are important ways of executing different processes. They are in many cases a necessity to develop the innovation management in the right direction. Implementation should be done on a higher IMS level, but also further down in all innovation projects. Following are some of the most crucial areas:

#### Strategic Intelligence management

Strategic Intelligence (SI) management is crucial for innovation management in general but especially for innovation project leaders who need the right knowledge at hand in order to make correct strategic decisions. Hence, the SI should support innovation leaders adequately by for instance continuously assessing present and future markets and customers to regularly give an updated view of the situation. A process like this consists mainly of collecting, processing, analyzing and quantifying these results which in turn will help innovation managers to make decisions in line with the innovation strategy. It is important that top management is involved in the process of defining and implementing the IMS for it to be successful.

#### Innovation thinking

Quite straight forward concerning innovative thinking processes in order to come up with new approaches, problem solving and ideas. Key areas are: Innovation management processes, transformation of data, practical risk evaluation through the testing of ideas, creative tools and techniques and key driver/enablers for promoting wanted culture.

#### Intellectual property management

It is very important to stay up to date and for the whole organization to have a clear picture of one's intellectual property (IP) and intellectual property rights (IPR) to stay competitive and be able to act proactive. IP is especially essential to make sure innovations are used properly, that it is in line with the innovation strategy and is generating growth and capital value, just to mention a few. IPs relevance as an IMS component is important for instance in regards to the culture and facilitating and structuring R&D partnerships.

**Collaboration management**

Managing team-, community-, and network collaborations and open innovation in a sufficient and proper way can dramatically enhance the innovation capability for an organization. Areas of special importance with regards to the IMS are for instance to decide upon what level of collaboration the innovation strategy should be formulated to reach certain outcomes, and how the organization culture are promoting collaborations in different settings.

**Creativity management**

Clear guidelines and principles are shown to facilitate creativity and is hence an important point in the standard. Some especially important areas with regards to the IMS, are to make sure the leadership is promoting creativity through different techniques as idea selection and implementation. This should also be clearly mentioned in the innovation strategy. Moreover, to give proper attention to facilitate ideal idea generation, and to document and store ideas by recording and reviewing them.



# Chapter 3

## Survey

# Survey

The standard presents guidelines for an organization's IMS. The purpose of the survey was to see how well implemented the different aspects of the standard (IS-CEN/TS 16555-1 Innovation Management) are in organizations. It was also to see further interest and status quo, for the standard and its future development.

The survey was sent out to 60 people in Swedish organizations identified as working with innovation or having an interest in the subject. The questions were asked on both a personal and an organizational level. Throughout the survey, the questions covered all the topics in the guiding framework of the standard. The structure of the questions depended on the specific topic. The majority of questions were multiple-choice. Some of the questions were based on a five-level likert scale, where "5" represented a high extent and "1" represented a low extent. Some questions were also answered in text to identify the reasoning behind the answers. The survey consisted of a total of 28 questions.

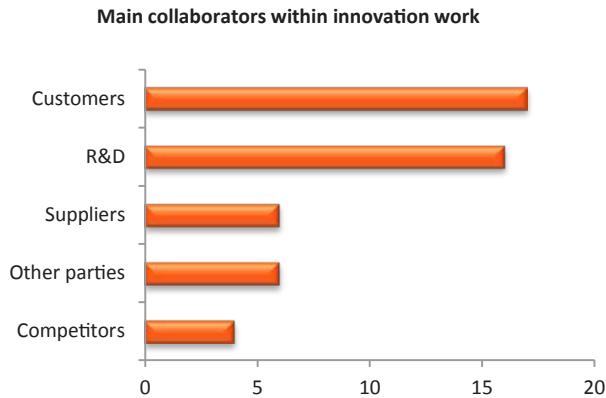
Out of the 60 people who received the survey, there were 19 received answers. 89% of the respondents were members of Innovationsledarna. This means that the majority of respondents are from organizations that work with innovation to a high extent and strive to improve it further, the leading organizations within innovation. This gives us biased responses, which is good since we can investigate the organizations that work a lot with innovation. The respondents were from a diversified set of industries, e.g. finance, industrial production, automobiles, science institutes etc. The job titles of the respondents var-

ied but most of them were working with innovation, management or R&D. The scientific relevance of this survey might not be sufficient with regards to the low number of respondents, but it can show tendencies among organizations.

This chapter presents the result of the survey followed by an analysis of the results. The results are presented in both graphs and in text. The analysis has been done to identify correlations and patterns connected to the standard. Possible explanations behind the received results are also discussed.

## Context of the organization

For organizations it is common to scan and analyze present and future challenges in both the external and the internal environment. Out of the responding companies, 84% conducted external scanning and 68% conducted internal scanning.



*Figure 1. The organizations mainly collaborate with customers, researchers and academia in their innovation work. Some companies collaborate with their suppliers, competitors and other parties.*

84% of the organizations answered 2-4 on a five-grade scale on to what extent the organization collaborates with external parties in their innovation work. The organizations that state to have a high level of collaboration also have a high degree of both internal and external scanning.

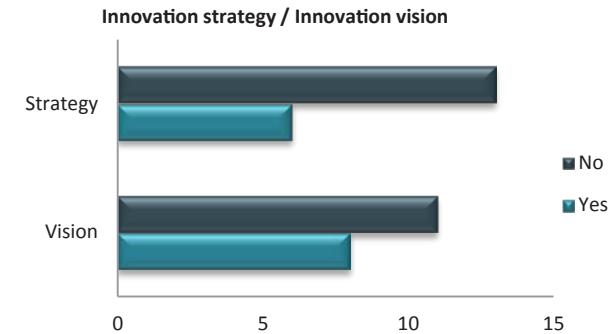
Among the responding organizations, a majority of the organizations stated that their innovation work is affected by information about current market trends within their industry. The majority claimed that the trends affect their innovation work to an extent of 4-5.

### Analysis

The result show that the area of systematic scanning is aThe results show that the area of systematic scanning is addressed within all the organizations since all responding organizations are aware what areas they

do and do not scan. The fact that the organizations' innovation work is affected to a large extent by the external and internal inputs indicates their awareness of the importance of this aspect. This way of working is correlating with the standard. Scanning of internally and externally challenges is claimed to be fundamental in order to work with innovations in a sustainable way and develop innovations that align with the market expectations.

### Leadership for innovation



*Figure 2. Out of the respondent companies, 42% have a vision for their innovation work and 32% have a innovation strategy.*

According to the survey it is most common that an organization either has both a strategy and a vision or neither of it. There were two dissenting organizations that have a vision without a strategy. The respondents who had a vision or a strategy were asked to further explain which parts of the organization were involved in the development of visions and strategy. The overall opinion was that it is mainly the management that takes part in the process. Some answered: "the whole

organization”, “external parties”, “innovation board” and “business development unit”.

A majority of the organizations do not actively work with building an optimal environment for innovation. On a scale 1-5 the answers were heavily weighted towards 2 and 3. Yet, the organizations that have both a strategy and vision also state to have a high intention to build an optimal environment for innovation and some of these organizations answered 4-5.

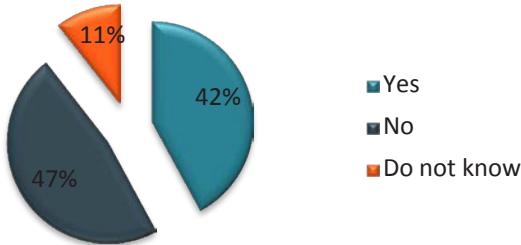
*Analysis*

None of the organizations had a strategy without having a vision, but a few organizations had a vision without having a strategy. This might be a result of that a vision is easier to state than a defined strategy. The reason why not all organizations have a strategy and a vision for innovation could be that the organizations utilize the overall business strategy and vision for this aspect as well. If the organizations want to follow the standard, an independent vision and strategy for innovation is something that they should develop.

We can see a tendency that the organizations that have a vision or a strategy worked more towards optimizing their innovation environment, which could be seen as a benefit of implementing these. By having a vision and a strategy it could be easier to know in what direction the processes should be optimized.

**Planning for innovation success**

**Systematic way of assessing risks and opportunities**



*Figure 3. 42% of the responding companies have a systematic way of assessing risks and opportunities when they are planning for innovation.*

*Analysis*

There was to a large part that either stated “No” or “Do not know”, in the area of systematically assessing risk and opportunities. The reason behind this could be that the companies find these areas as a part of the strategical planning, which was shown in an earlier chapter that it was not that well implemented. In order to follow the suggested standard more focus on implementing these measurements is recommended.

## Innovation enablers/driving factors

### Person/team in charge of the overall innovation management system

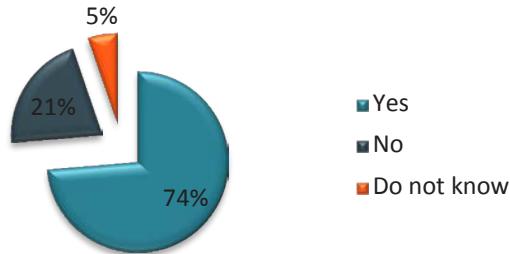


Figure 4. 74% of the respondent companies have a team or person that is in charge of the overall IMS. 21% do not have assigned a responsible person and one respondent is not sure.

The majority of the respondents agree to a low extent that they have the resources and competences that are needed to manage innovation within the organization. 89% of the respondents answered 1-3 on the 1-5 scale on this question.

There is a wide spread of responses on what is considered to be the most critical resource that needs to be strengthened in regards to the IMS in the organization e.g. resources, decision ability, management commitment.

The respondents were asked to what extent the channels of communication within the organization support innovation. The majority of responses, 79%, were either 3 or 4 on the 1-5 scale. No organization answered 5 on the question.

## Intangible asset management

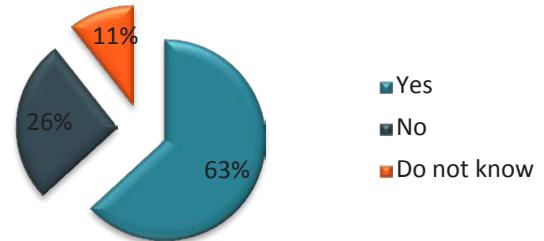


Figure 5. 63% of the responding companies have a tool, system or policy to handle intangible assets of knowledge and intellectual property.

Responses show that intellectual property policies/systems are integrated to a low extent within the organizations' innovation work. Grading 1-3 stands for 68% of the answers and only one organization states that they have a very high level of integration.

### Analysis

It is clear that most of the companies have a team or a person that is assigned to the innovation process, which is suggested in the standard. Many of the respondents feel that there is a lack of resources and competences that is needed in the organization. There is no respondent that is completely satisfied with the resources and competence provided by the companies to manage innovation. It is interesting that many companies strive to be innovative but at the same time are not willing to put enough resources into the process. A reason behind this could be because of the high cost of allocating resources while it is difficult to see the return of investment from it.

Companies seem to have problems to identify if investigations of innovation are worth the effort and identify what is the most critical resource to strengthen. There are multiple respondents who answered that they need more support and commitment from management. This is a crucial factor since the support from the top management is, according to the standard, a critical factor for the outcome of the process. The commitment of the management is essential to implement an innovational culture and to get all the employees involved in the IMS.

The question regarding communication channels indicates that there are channels that support these activities among most of the companies. Although there was no organization that claimed that they communicate this to a large extent. The reason behind this might be that the channels are not optimized for supporting innovations.

Many of the responding companies have a way of handling intangible assets and intellectual property, which is good. In the answers it became clear that these were integrated in their IMS to a low extent. The reason behind this might be because the models of handling these aspects were developed before the organization started to work with IMS and have not yet been fully implemented.

### Innovation management process

#### Analysis

37% of the responding companies do not have an established innovation process from insights and ideation to launch. According to the standard, having a process for taking ideas to launch is the foundation of innovation. An important point is that this answer does not need to mean that the companies do not have a process at all, but that it might not be fully established.

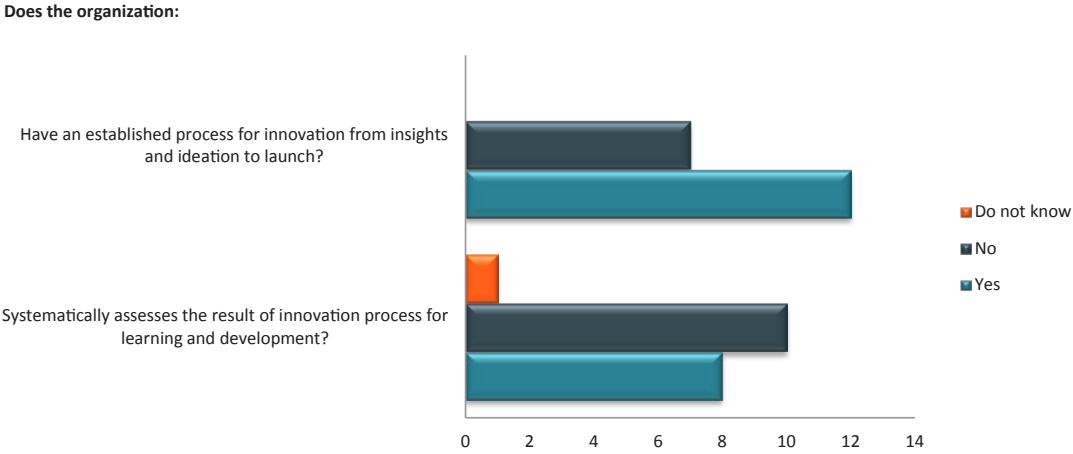


Figure 6. 63% of the responding companies have an established process for innovation from insights and ideas to launch. 42% have a systematic way of assessing results in the innovation process for learning and development.

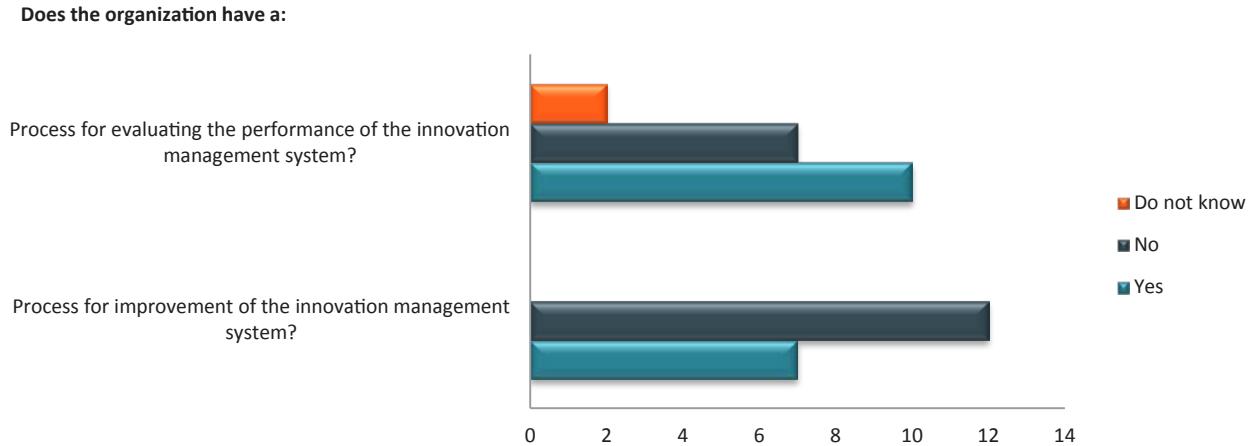


Figure 7. Among the responding companies 53% are working with evaluation of the performance of their IMS and 37% have a process for improving their IMS.

Five out of twelve of the respondents that have an innovation process do not systematically evaluate the results in order to improve it, which the standard suggests.

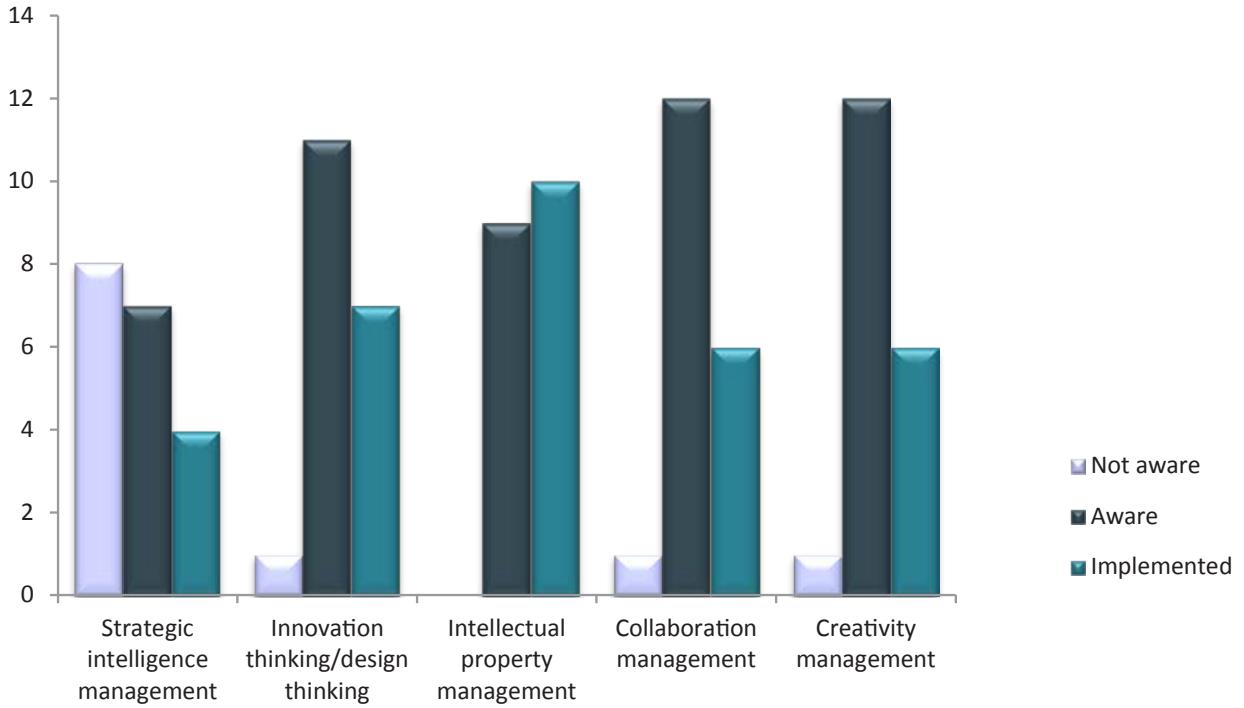
## Performance assessment of the innovation management system

Companies that evaluate their IMS performance mainly focus on the areas of innovation processes and innovation results. Some evaluations are also towards the innovation strategy and the deployment of innovation enablers/driving factors.

### Analysis

We can see that about half of the companies are working with evaluating performance of their IMS. The evaluation of performance is spread over several areas. The reason behind this might be that general systems are used for evaluating the projects.

The majority of the companies is not working to improve their IMS. This might be due to lack of easily accessible tools that are easy to apply for the specific needs of the organization. This could be because IMS is a wide concept and too extensive to evaluate and improve continuously.



*Figure 8. The diagram shows the status of different management techniques in the respondent’s organizations. The most widely implemented technique is intellectual property management and the least implemented technique is strategic intelligence management. The largest lack of awareness is in Strategic intelligence management.*

## Innovation management techniques

There is one organization that has implemented all five techniques in their processes. Three respondents are aware of all techniques but have not implemented any of them.

### *Analysis*

Companies that have implemented the intelligence management also have a large implementation rate of all techniques. The reason behind this might be that these companies already have a highly developed way of working with innovation. It is clear that the innovation management techniques are well known since the majority of the companies are aware of all techniques with the exception of strategic intelligence. It could be possible that the rate of implementation will rise in all areas as the companies get more information and awareness of each technique. This is an aspect where the standard can play an important role by supplying the companies with the necessary techniques.

## Standard on innovation management

There is a large majority (89%) of the respondents that is familiar with the ongoing work of standardizing the IMS through the SIS-CEN/TS 16555 standard. There is only one organization that is currently using the standard in their innovation work. There is a variation of answers on why organizations do not use the standard in their work today. Time and knowledge about the standard were two major reasons. There were also companies that did not see the potential benefits and advantages they get from utilizing it.

### *Analysis*

One of the major reasons to why companies did not use the standard in their innovation work were due to a lack of knowledge. The reason why some do not see the benefits and advantages from utilizing the standard might also depend on lack of knowledge in how to implement it in their organization. There seems to be an interest in using the standard if more knowledge about how it works and how to implement it in organizations was given. When knowledge about how to handle the standard gets further introduced to companies, they might see the value of it and be willing to invest time into implement parts of it.

IMS is still a new concept and the respondents and managers that have doubts will most likely be further convinced of the benefits of the standard in the future.



# Chapter 4

## Cases

# Introduction

The IMS standard presents multiple areas of innovation management that are interesting to implement in an organization. Implementing an IMS or a specific part of it can be done in many different ways, depending on the internal and external conditions of an organization. This chapter presents five organization cases, based on interviews with the responsible people for implementing specific parts of the IMS in the organization. The cases are meant to give an idea on of how companies structure their organization to increase innovation capabilities.

The cases are built from information gathered by semi-structured interviews with open-ended questions that allowed for discussion. The interviews were conducted with one person at each organization and the questions were adapted to fit the particular organization and element of innovation management that was investigated. All interviews were done in Sweden.

It was difficult to seclude cases to one specific area or topic of the SIS standard because innovation management includes many different aspects, and the different areas cannot easily be separated. The three initial cases cover a broader area of the innovation process and management but still have different focuses for each case. The last two cases are more specific, discussing the areas of idea management and innovation performance measurement. The choice of companies was partly based on that their representatives were part of the innovation network Innovationsledarna (Innventia and Ericsson) that was seen as an indication that they work actively with innovation strategies. How innovation strategies can be used in a fast moving industry, like fast moving consumer goods, is investigated in the ICA case. Another reason for choosing the companies were previous knowledge that they worked or had been working with some

Organization	Case Topic	Industry
Innventia	Innovation strategy	Research Institute (Forest industry)
ICA	Implementing innovation	Retail
Securitas	Innovation launch	Security services
St. Jude Medical AB	Performance measurement	Med-tech
Ericsson	Idea management	Telecom

Figure 4.1 - Case description

specific areas of the IMS (Ericsson and St Jude Medical AB). It should be noted that the St. Jude Medical AB case is retrospective because the organization does not exist anymore.

# Innventia

Having a well-defined and structured innovation strategy is considered important for successful innovation. This case provides guidance on how the vision and strategy can be formed from scratch. It provides an example on how an organization can act and succeed when trying to establish an innovative culture and ways of working for the management and different levels of the organization.

## Innventia - Innovation strategy

Having a well-defined and structured innovation strategy is considered important for successful innovation. There is often an existing business strategy, but having a specific innovation strategy is becoming more common. The case of Innventia provides a good illustration on how leadership for innovation and strategic innovation can be implemented and used. If nothing else is mentioned the information in the case comes from an interview with an innovation leader at Innventia.

This case provides guidance on how the vision and strategy can be formed from scratch. It provides an example on how an organization can act and succeed when trying to establish an innovative culture and ways of working for the management and different levels of the organization. Leadership has had a strong focus to establish an innovation culture from the very start of the process. Another reason for the presentation of the Innventia case is that they have put a large amount of effort into fundamentally creating an innovation strategy through different activities, tools and culture to increase their innovation capability.

### About Innventia

Innventia is an organization whose main business strategy is to generate new or updated research based on raw forest materials. They are the world leading research and development institute related to pulp, paper, graphic media, packaging and biorefining. They aim to provide new solutions and serve all customers in the value chain that could benefit from their research. Innventia calls this approach “boost-

ing business with science.” Moreover, they know the industry and realize it has to evolve radically in order to be prosperous in the changing business environment. Something especially true for the newspaper business, which is in rapid decline. Therefore a change is needed, and change through innovation is what Innventia offers. In other words they work as research providers to relevant companies, sharing and combining competences with each other to support their renewal work. They also act as a part between the big and the small companies, connecting them together creating new unique collaborations. A close connection to universities and different institutes is a key factor in their business. Innventia expresses their customer value proposition in these points:

- Carrying out research at the highest international level by our own or in networks
- Implementing research results in commissions and in consultancy
- Providing services utilizing state-of-the art laboratory and pilot plant equipment.

Innventia is located in Sweden, Norway and London and currently has around 210 employees. The organization is divided into three separate business areas; biorefining, material processes and packaging solutions, as seen in the figure on the next page.

Innovation support is a service they offer to customers that aim to help in the process of developing ideas or taking an already existing idea to the final stage.

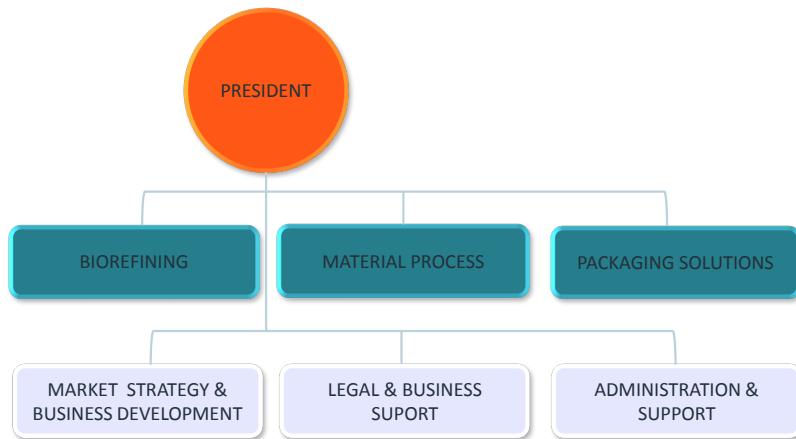


Figure 4.2 - Organizational Structure

They provide the tools, gear and know-how needed to realize it.

Innventia Research Program is perhaps the best example of what Innventia does and represents approximately 40% of their total turnover. It is a comprehensive, recurrent three-year research program run and executed by Innventia. The research topics for 2012-2014 comprise of 13 different areas.

The participants in this program are people from the industry. Together they work on finding solutions to problems or new approaches and technology they all would benefit from. The outcome sometimes results in new patents and is in those cases regulating carefully through unique contracts. It is the customers who control and decide which results should be patented but everyone who participated owns the rights to it. Innventia is always entitled to further research in the field and involved customers are always entitled to free licenses.

## Description of how they work

### Innovation Strategy

Innventia is all about innovation, as this is their actual value offer to their customers. To help others become more innovative, they need to act accordingly. In order to do so they clearly need to state their definition of innovation to know what they are aiming for.

*“An innovation is a new product, service or process that has been taken from an idea to being a success on the market and/or an extensive application”*

Innventia’s innovation strategy is a creation arisen partially out of the innovation manager’s experience. The strategy has been iterated, sanctioned, anchored in the management team and thereby been improved over a long period. Innventia has formulated what they call an innovation message in accordance with their role and mindset in three simple statements as seen in the figure on the next page.

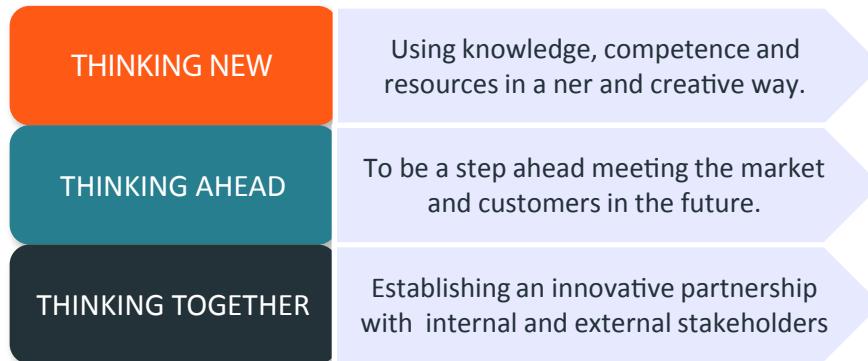


Figure 4.3 - Innovation message

In other words being on the frontline with the latest research and finding ways for their customers to capitalize on it. Innventia has an intention to think ahead of their clients and be able to present the best way forward for them. To enable this, collaboration is crucial. An indication of Innventia's focus on innovation is that they joined the development of the SIS standard two years ago. They thought it would be a good idea to be a part of that development to learn and improve, as well as contribute to help others.

The three statements represent an equally important approach internally and externally when working with their customers. Since the introduction in 2008 they have become deeply embedded in the organization and employee's mindset, all in line with their innovation strategy.

### Key Functions

A number of key functions are used to facilitate the innovation strategy and strengthen Innventia's internal and external innovation work. These key func-

tions come in the shape of activities and tools that have been implemented systematically and are currently being used on a regular basis. Innventia has divided these into three categories: Innovation Process, Internal ambassadors and Idea Management.

### Innovation Process

#### *NABC, value creation*

NABC is a mnemonic founded by Stanford University and is a model used to develop and get new perspectives on the value proposition. Each letter stands for the four most important aspects in the value creation process and how to develop an idea. Innventia uses the model mainly to make researchers understand the meaning of customer value and a customer's perspective, an approach they are often not familiar with, but also in different workshops with customers for development and innovation processes.

- N: What is the Need for the new product?
- A: What Approach do we have to satisfy that need?
- B : What is the Benefit per cost of the approach?
- C : Who is the Competition?

*Business model innovation*

Innventia educates and works together with their customers by the aid Osterwalders business model innovation.<sup>1</sup>

*Idea generation, customized facilitation*

Innventia arranges several workshops to bring out the best ideas with their customers. Customized facilitation is a new take on brainstorming that takes it one step further.

**Internal ambassadors**

*Innventia Idea Academy*

As an improvement of the Innventia Research Program, Innventia introduced the Innventia Idea Academy in 2010. Prior to this, a handful of people connected to the Idea Academy was trained and educated in idea process management. The idea is to gather people from different fields and areas for fun and exciting workshops. Well-planned and structured sessions with more creative tools than the common brainstorming are used to improve discussions, share ideas, visions and new perspectives. So far many suc-

cessful workshops have been executed with many cross-border collaborations as a result.

*Innovation brokers*

A network of experienced but retired people that all have been active in the forest industry for many years. The network enables collaboration and work with projects concerning future scenarios.

**Idea management**

*InnMind*

Innventia introduced the idea management tool InnMind one and a half years ago. It is a web based idea management platform tool, available to employees at Innventia. The idea is to have a platform to share, evaluate, combine and comment on each other's ideas to promote innovation and the generation of new ideas. A tool like this does not take care of itself but requires assigned personnel to make frequent updates and plan activities so it feels alive and generates traffic and activity among the employees. To promote and motivate the use of the tool, they regularly post different campaigns for the employees to participate in. Such a campaign could for instance be creating ideas on how to resolve a common problem within a specific topic. A campaign always has a clear aim of what is wanted and how ideas should be submitted.

The idea tank for storing ideas is divided into two different sections: an idea tank for ideas for internal application and an idea tank for research purposes. All generated ideas are then stored in a database accessible by all employees. A search for fibers would then provide all ideas that are related to the topic along with the provider of the submission. Two different employees, who were never in contact with each oth-

<sup>1</sup> Pia Wågberg, Innovation-How do think and act (Innventia, 2014-10-14)

er, could via InnMind find a common denominator sparking a whole new project.

The value of such a tool is not only connected to the increased idea generation, but also in a new mindset that comes with contributing and sharing ideas, all aligned with the given innovation strategy. The tool is still in its early stages and not all employees at Innventia are using it today. Some use it to a great extent while some do not use it all. Innventia is aware that it will be difficult to get everybody to use it, but has the goal to have all managers using it since they are important as role models. It is important to point out that no formal evaluation of the system has been done. Neither is it planned until three years after implementation to give a fair judgment of its value.

#### *Dragons den*

Dragons den is an idea management venture launched in 2012 and has since been used yearly with the purpose to ignite new interesting research programs. Inspiration comes from the TV show with the same name, where candidates pitch their business ideas to investors. The candidates in this case being researchers and employees within Innventia and the prize pool of five million SEK originating from government funding. Each candidate gets five minutes to persuade the jury before a 15-minute questioning begins. Each time different criteria are set to guide the outcome into the right direction. In 2013, contributions were obliged to cover two business areas so the projects would be cross-disciplinary. Usually around ten ideas are chosen and developed further during the year. The project is facilitated via the InnMind platform, which has the benefits of making the process easier and more transparent. In some cases there have been people with more or less the same

idea, which then have been asked to collaborate and come up with a joint proposal and pitch.

#### **External activities**

Besides all the internal work, much effort is put to create awareness for the organization, create connections and actively work with others to grow organically as an innovative organization.

#### *Active participation in external networks*

- Innovation Pioneers/Innovation in action
- Innovation Leaders is a collaboration for innovative companies from all different kinds of industries to share ideas and experiences
- Cooperation with an academic institution for innovation research

#### *Demonstrators*

By displaying innovative ideas created by newly developed technologies, the idea is to intrigue others and make them realize the potential for innovation, which lies within the industry.

#### *Global outlooks*

A comprehensive scenario analysis in the different areas that Innventia is active in, for instance Packaging 2020, which was the title of the first scenario analysis, released in 2013 and published in more than 30 countries. It identified the major global influences and what possible effect those have on the future of packing industry.

#### *Opportunity scouting with customers*

This is a part of the Innventia Research Program where companies collaborate. Sometimes they do opportunity scouting on smaller areas or new technol-

ogies, which are the outcome of a bigger project and research results. This sometimes results in new, larger projects and makes the companies think in new paths previously not available to them.

*“Working with market analysis to ensure a better opportunity for focusing our operations on areas of interest and to shorten innovation times is of great value to us.”*

*-Birgitta Sundblad, President Innventia, Annual review 2013 regarding opportunity scouting*

*SME push and pull*

With push and pull SME Innventia is providing free of charge consultation to small and medium enterprises (SME) within their core business areas of mass, paper, packaging and biorefining. The push and pull meaning that both the companies can come to them (push) as well as the other way around (pull). Their goal is to improve the organization’s products and processes in order for them to become more competitive.

**Key roles**

The innovation manager has been a great driving force for the innovation work in Innventia since the position was created in 2008. The position as an innovation leader has shaped the way Innventia works by its very core and has focused on pushing the innovation work forward. One of the most important tasks for the innovation manager is to be able to communicate in three different directions in an efficient and good way: internally to create enthusiasm, upwards toward upper management and externally to make companies and academia aware of them. Planning and executing innovation activities is also a big responsibility for the innovation manager.

Innventia is also educating personnel in the relevant aspects of the innovation work they are doing, for example when they are exploring in new ways of brainstorming. It is crucial that responsible personnel for InnMind, Dragons den and other tools and activities are motivated and competent enough for it to be successful.

**Contributions**

The main contribution of Innventia’s innovation strategy is that it has, in the long term, brought a new mindset to the organization. The direct outcome is the pure volume of innovations and ideas that has come out of all the tools and activities. Overall Innventia believes that all internal and external innovation activities will help them to:

- Provide the right tools
- Work on their culture
- Become more competitive in the future
- Have the right competences where needed, both internal and external

**Challenges**

The biggest challenge for Innventia has been to fully implement a desired organizational culture. Cultural change is a challenge in an old and conservative industry like the forest industry. Even though Innventia is somewhat set apart from this field, the general mindset cannot help to rub off to them. Something they are aware of but actively work on to change to be in line with their innovation strategy. Implementing a culture is basically a matter of educating the employees and making them use the provided tools and activities to facilitate such a mindset. For example with info stands in the lobby to inform about the tools and

activities or promoting an active InnMind campaign, convincing employees to contribute.

*“Innovation is a sedulous work, the biggest challenge is to get everybody aboard”*

- Innovation leader at Innventia

Moreover, Innventia talks about the importance of understanding the how and the what of their operations. How being the trusted research partner - how they do things, and what being the creative innovation partner - benefits what they are doing. However, they feel this is an area in need of more attention to have it better implemented and understood.

*“We need to get better at the how and the what, more people need to have that mindset in this house”*

- Innovation leader at Innventia

### Constraints

When the tools and activities are in-line with the strategy, the more employees are participating actively, the more should it theoretically positively shape the culture. However, many of these activities and tools do not have allocated time for it, but providing them is a step in the right direction. For example the benefit of having a place to quickly upload an idea or thought, which InnMind provides. This is true even if there is no time or resources to act on the idea in that very moment, but the very act of putting it in words and sharing it is a crucial part in the innovation process.

Time and resources are always an issue, as for now there are not enough of the two and the innovation culture would benefit greatly if these factors were increased. As a result of lacking resources Innventia is ending the participation in the development of the

SIS standard at the end of this year. Moreover, many of the activities are only feasible once a year due to resource and time limitations.

*“Time and resources are always an issue”*

- Innovation leader at Innventia

### Key drivers

In order to have attractive products in the future, in an industry, which is going through massive changes, companies need to be prepared and proactive. Many realize this but have no idea how to do so. They turn to the industries helping hand: Innventia. But in order for Innventia to help others to be innovative, they must be experts. The innovation strategy is therefore perhaps the most crucial component to fundamentally change and integrate an innovation culture into each and every one of their employees. They in turn can then educate their customers, passing on the innovation knowledge. Equally important is the innovation vision and to use it right: evaluate what is being done to see what is working and what is not, adapt and continuously work towards that clear vision and goal.

### Analysis

The case of Innventia is a way to show how they work with innovation strategy concerning vision, strategy, leadership and culture. These topics are the central framework provided in chapter 5 of the SIS standard. There are many similarities in the overall case that resemble the points suggested in the strategy and the external research theories of innovation strategy.

The SIS standard stresses the importance of top management to implement an innovation vision and that it should include the following aspects:

- Set a direction and a challenge that can inspire persons to commit and work towards;
- Be sufficiently ambitious and not constrained by the organization's current capabilities;
- Provide a target against which progress can be measured.

We find similarities between the message that Innventia wants to provide through their organization and the framework of the SIS standard. It is apparent that there is a good match between the standard and the way of working at Innventia. It is possible that the vision has been formed with the help of similar guidelines that were the basis for the standard.

Innventia has a lot of different activities and tools that they use in the process of innovation. We can see that they invest a lot of their capacity and resources into the strategic management of the organization. They have Innovation brokers, InnMind and the Dragons Den, which they provide to the employees to bring different ideas and people together. They are working well with the allocation of resources but it is important to keep the agreements and contracts updated as the requirements might change over time.

Innventia has a clear focus on their definition and direction of their innovation work. Their three goals of "New, Ahead and Together", indicate that they want to keep moving forward and stay competitive within the market. They also use the adjacent matrix<sup>2</sup>, where they provide a "bridge" between small and bigger ac-

2 Bansi Nagji and Geoff Tuff "Managing Your Innovation Portfolio" <https://hbr.org> (Issue 5, 2012)

tors in the market, and combine incremental and radical innovation through their organization towards other collaborators. This is an interesting way to focus their innovation but might be hard to implement. Innventia is open for ideas and has a broad spectrum for the novelty and different kind of innovations. A step of improvement could be to enter further markets and new industries with their supportive innovation.

According to Wouter Koetzie and Christopher Schorling, an innovation strategy should be inspiring, specific, adaptive and evolving over time<sup>3</sup>. These are aspects that are similar to the process of Innventia. They have a documented way of adapting technologies and a set timeframe for the different stages of their processes. They also have both ambitious and radical aspects in their strategy to stay competitive within their area of development. The strategy is formulated by the top management and is adapted to both the internal and external environment of the organization.

The SIS standard concludes that the organization and management should create an IMS that includes: the handling of IPR, documented HRM policies, clear directions of objectives and support to the innovation culture with necessary resources.

It takes a lot of effort for an organization to create the desired culture of any sort. It is also a high commitment of time and resources. Both are essential for the organizational culture to evolve accordingly to the goals set by management.

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3 Wouter Koetzier and Christopher Schorling "5 Key Points to Consider when Developing an Innovation Strategy" <http://www.innovationmanagement.se>, (July 03, 2013)

The top management of Innventia uses different activities and tools in order to foster the innovation culture within the organization and employees. The goal is to increase innovation capability and idea generation. It is clear that they work hard to create a strong and sustainable innovation culture.

The organization has documented policies for their human resourcing. They are working closely with innovation and their employees and it is stated which resources are available for usage. All involved employees have access to the innovation strategy and are involved in achieving the designated goals. The IPR is contracted through deals with the customers, which therefore are unique to every case. Since the organization relies on their science, it is natural they have a strong system for handling the IPR.

Innventia could improve the area of creating incentives among employees to work on their own ideas. As of now the innovation work should be included in the process of work but there could be a place of allocating special time, where employees can work on idea generation and their personal innovation projects. This has been proven to work successfully in other companies such as Google and 3M, where it has generated profitable and successful results<sup>4</sup>.

The organization has a good tolerance against failures and integrated a conduct of learning in every step of the innovation process. They also promote the collaboration between persons and networks through budgeting teams for projects. The communication in

the organization is already of a high standard since the digitalization of ideation a few years ago. If this system turns out to be efficient or not is yet to be determined.

All of Innventia's innovation activities and policies in the vision and strategy are well in line with the overall direction of the organization. The organization in itself has its foundation within innovation and it becomes clear that the Innovation manager that we interviewed is not a unique case when it comes to passion and creativity for innovation.

Our conclusion have come a long way when it comes to the internal and external activities and Innventia's way of working is doing well for the forest industry which they mainly operate in. It is likely that they will expand their concepts into other areas and industries. Many of their applied tools and standards are based empirically while others are based on a theory. This makes for a good mixture that lets the employees and the culture of Innventia grow and evolve together with the managerial strategy and vision.

<sup>4</sup> Moe, N. B., Barney, S., Aurum, A., Khurum, M., Wohlin, C., Barney, H. T., ... Winata, M. (2012). Fostering and Sustaining Innovation in a Fast Growing Agile Company. Product-Focused Software Process Improvement/ Lecture Notes in Computer Science, 7343, 160–174

# Securitas

Launching innovations is essential to be able to compete on the market. This case was chosen because of Securitas' existing work with innovation and focus on innovation launch and interesting aspect that it is important to avoid any mistakes.

## Securitas - Market introduction

Launching innovations is essential to be able to compete on the market. There is often a lot of development before launching an innovation and if the launch itself fails the development effort will be wasted. This case is about launching innovations at Securitas. For them it is particularly important that all launches are successful since they are in the field of security. If an innovation is launched and not providing the security that Securitas stands for, it hurts their entire brand.

This case was chosen because of Securitas' existing work with innovation and focus on innovation launch and interesting aspect that it is important to avoid any mistakes. The fact that it is a global service organization with over 300 000 employees makes it interesting because of the challenge to get everyone to get onboard. If nothing else is mentioned the information in the case is based on an interview with the person responsible for innovation at Securitas.

### About Securitas

Securitas journey started in 1934 under the name "Hälsingborgs nattvakt". They expanded rapidly and merged with other security companies. To meet the need for alarm technology to complement the guarding services, Securitas Alarm started in 1949. Ever since there have been expansions, international establishments, new divisions and acquisitions. Today Securitas is a global organization with business in 54 different countries. The number of employees is over 300 000 worldwide.

In 1991, Securitas was introduced on the Stockholm Stock Exchange. Securitas is a service organization but also delivers services with added products, such

as video surveillance systems. They offer services in specialized guarding, mobile security services, alarm surveillance, technology solutions and consulting, and safety investigation services. With business segments in North America, Europe and Ibero-America, Securitas is the market leader in their field and last year had total sales of 65,7 billion SEK and the operating profit of 3,3 billion SEK.

The interviewee is responsible for innovation at Securitas Sweden. The purpose of the case is to identify how Securitas works for the launch of innovations and how these are monitored by measurement and evaluation.

## Description of how they work

### Innovation at Securitas

Securitas is a knowledge leader when it comes to security. Innovation has always been of high importance, but it was not until two years ago they started to work with innovation formally in the organization in Sweden. The reason to implement innovation was to strengthen their position and sustain the knowledge leadership. For Securitas it is important to have a broad perspective when it comes to innovation and they are working both internally and externally.

### Innovation process

To be able to launch an innovation, there must be an idea in the beginning. At Securitas ideas can come from internal sources like management or through their innovation box where employees can submit their own ideas. Ideas can also be picked up from external sources such as from customers or external research collaboration. Today Securitas has several research collaborations with e.g. the police and uni-

versities like KTH (Royal Institute of Technology) and LTH (Lund University, Faculty of Engineering). The research is mainly directed to identify where the market is heading.

The interviewee and his colleagues examine all ideas that reach them and sort out the ones that are considered to have future potential. When they are evaluating an idea they look closely into if it is a long-term and global solution. If the idea is selected for continuous work, the process starts and the first milestone is reached. The innovation process then continues to the next milestone where someone internally examines the idea more thoroughly and adds more sub-

stance to it. It then goes further to the third milestone and so on. Brainstorm sessions are put together with relevant people for a particular idea. They check if there are similar ideas that can be merged or complemented. When the last milestone of the innovation process is reached, the group is assembled to work further with it and from that point it is seen as a project. The milestones can differ slightly from a process to process. An example is shown in the figure below.

To encourage innovation at Securitas they have an incentive system connected to the innovation box. The awards depend on the potential and innovational height of the product.

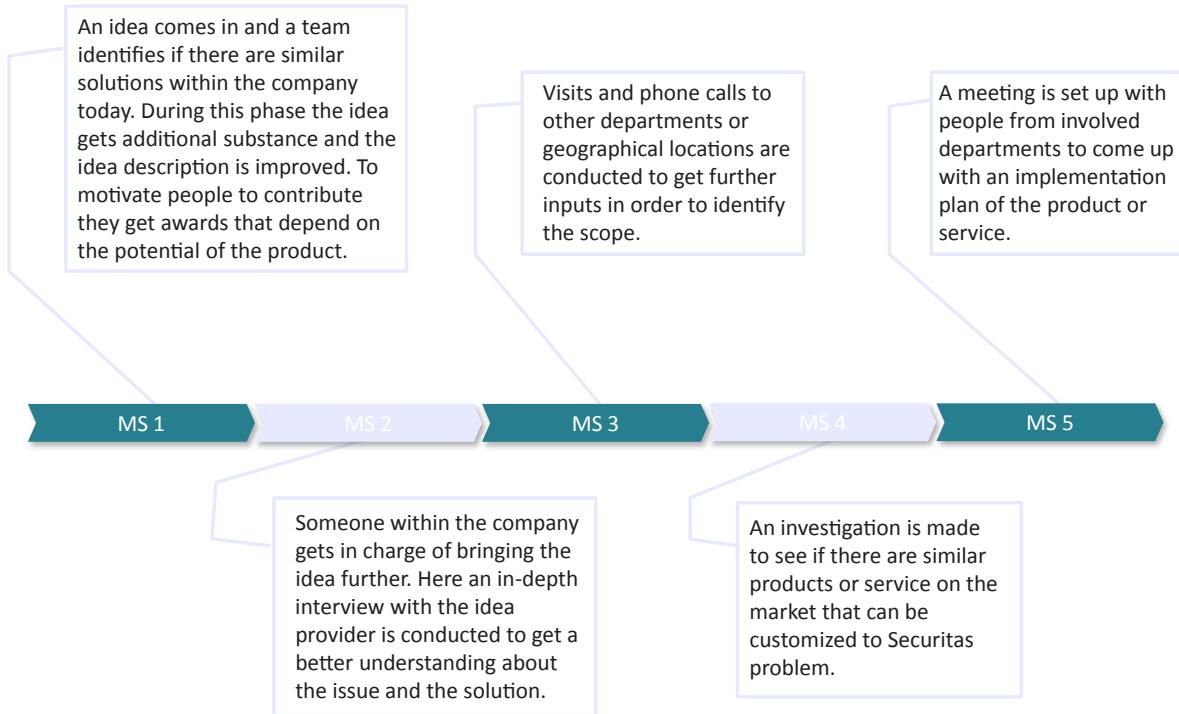


Figure 4.4 - Product development milestones

Securitas are always looking for existing solutions on the market and the possibilities to use these in their own business. The interviewee pointed out that Securitas is solely a service organization and that they do not manufacture any products in-house. Therefore they have much collaboration with suppliers and manufacturers to enable the full service that they provide.

### **Project phase/preparation before launch**

After the initial phase, the project team is assembled including a project leader, the market division and sales division. How many resources a project will get depends on the organization's strategy. Lately there has been much focus on technology within security and in the last two and a half years there has been major investments in RVS (remote video solution). RVS are smart surveillance systems that enable recognition of faces and identify certain patterns of movement etc.

When a project begins, people from different divisions are assigned to the project to evaluate the solution. Important divisions are for example the security and the human resources division. They evaluate the project from an early stage so that the projects align with the set regulations that Securitas needs to follow and so that they are feasible in all different perspectives.

The launch of the service or product is planned on an early stage where the market and sales division is involved in the project. Securitas points out that it is of great importance that the market and sales divisions get education and feel involved in the project. Those divisions also have good inputs that will facilitate a successful launching. To avoid internal resistance it is

also important to gather input from the entire organization and to have managements support.

At Securitas they are working a lot with short educational movies to market projects or services internally and to educate the employees. Securitas has three full-time employees that only work with movie making. These films can be addressed to certain groups of employees directly and push notifications will remind the employee to look at it. General knowledge is of high value in the organization and there is a lot of efforts put in educating people. The interviewee claims that by making sure that the whole organization knows what is going on in an early stage the resistance to the changes will be lowered. Securitas also has further face-to-face education for the employees that are going to use the products or services. This makes the users comfortable in using the service or product. The figure on the next page it describes the workflow of how Securitas works with involving their employees. The example is taken from a one-year project.

### **Launching**

When an innovation is launched there is a committee that identifies all risks and evaluates the project. This committee includes the security division and lawyers. Since Securitas is working within security, there are many legislations and agreements that need to be considered. When a product or service is launched, there is no room for mistakes since they may have devastating consequences. The committee is involved early in the project to ask questions, bring input and suggestions during the development. They are also in charge of making an overall, in-depth final evaluation before launch.

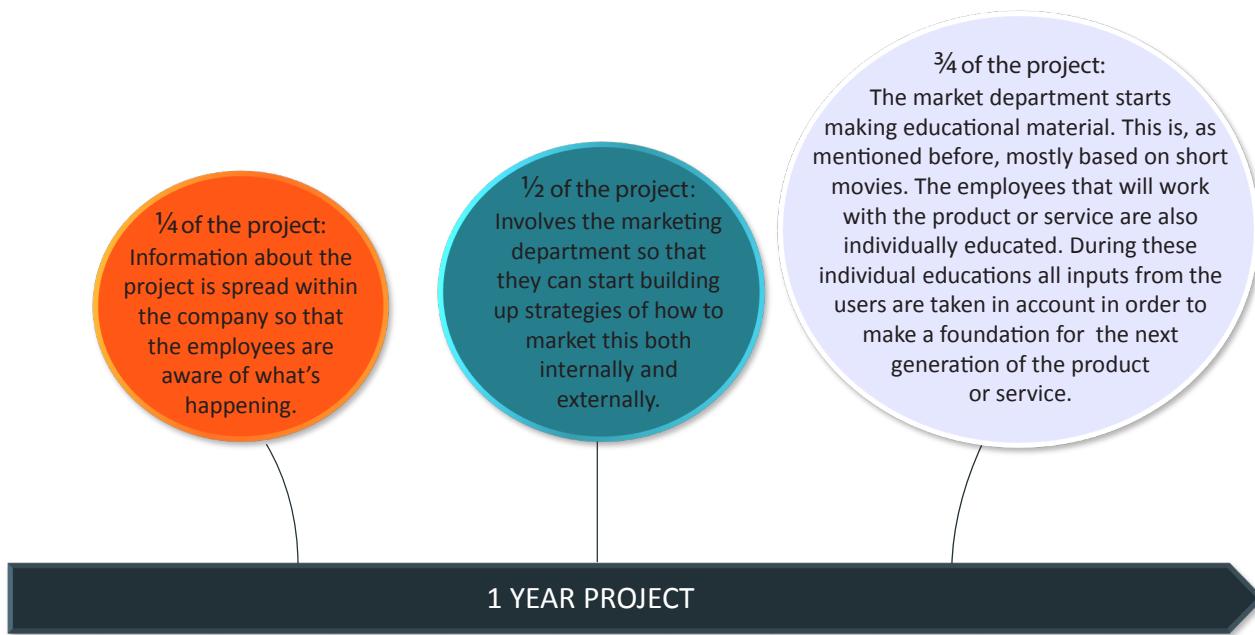


Figure 4.5 - Project plan

The interviewee says that even the best products will not be sold without educated sales people. Thus it is important that the sales division gets education and is well prepared for a launch. When the innovation has been launched, feedback will be gained from involved customers. The marketing budget is relatively low at Securitas. Instead, Securitas involves partners with expertise in the area and collaborates with other companies to build their brand. The conducted branding is about building concepts, delivering and presenting more than just a product. Securitas focus on supplying a comprehensive solution.

The most important things for Securitas during a launch are security and reliability. Risk management and agreement needs to be fully developed and there

are certain checklists that should be fulfilled. The checklists are classified.

### Measurement of launch

To measure the success of an external innovation launch the main tool is ROI (return on investments). There might also be launches that are focusing on brand building. One example is an app that was launched for the security of travellers. These launches do not have a specified model of measuring and it differs from project to project.

For launches that are replacing earlier solutions there are internal systems, which measure the improvements. The measurements are focusing on how the earlier solutions perform in relation to the new one.

The system is based on a computer system, which analyses a lot of data, and conclusions can be drawn from. One example is the measurement of improvements conducted to a new communication system where parameters related to the particular solution are investigated.

## Key positions and functions

When launching innovations it is vital to have support from the management to be able to develop and launch innovations. The management provides resources and creates the climate that is communicated in the organization. They are also the ones with an overall view of the organization and make sure that the organization strategy is followed. In the case of Securitas, the interviewee claims that he has full support from the management, which helps him to implement products in a smooth way.

A person like the interviewee is of great importance. He has a passion for innovation and the drive and knowledge to realize it. The interviewee also has the possibility to get support from employees, which is of great importance since they are the ones that will develop, use or sell the innovation.

For launching innovations, particularly at Securitas, it has shown that their security division and the committee that evaluates innovations are of great importance. Since security and reliability is of high importance at Securitas, it is necessary that qualified people make a careful examination of the innovations. This is of high importance to maintain a powerful brand and credibility.

The brand itself also plays an important part when launching new innovations. Securitas' customers are

always curious about their new services and therefore marketing does not need to be that costly. The Securitas brand creates an interest on the market. But this also puts high demands on the organization, which can be time consuming to examine and fulfill.

As mentioned earlier, the sales and marketing divisions are important from early on in projects. If sales and marketing does not understand the product or service or does not feel involved in the innovation, they might not make the right effort to sell or market it. These departments can also come with vital inputs during the entire project that will facilitate the launch.

## Contributions

It is necessary to launch new innovations to be able to compete and keep the market position. Customer needs must be fulfilled and, based on this, it is of great importance to always be in the forefront and able to offer the best and most efficient solutions. Launching new innovations contributes much to the branding effort, which is one of Securitas main competitive advantages. The safety behind a launch is therefore important to maintain the positive perception of the brand.

## Challenges

Internally there is always the challenge of sharing the right data that is needed to make people understand and see the opportunities and benefits of an innovation.

“You can have the best, sexiest product, but if it is presented in the wrong way you will lose because of that”  
- Innovation manager at Securitas.

It is important to educate and build knowledge internally. The sales will not be good if the salesmen are insecure about a new service's performance, benefits and opportunities. The goal of the service needs to be defined and the strength is in the organization. Therefore the employees are the ones that need to be convinced. The interviewee usually invites small groups to meetings when presenting and or educating. At these meetings everyone can make their voice heard and ask questions. The interviewee has faced resistance both from employees and from management, but he feels that he has gained their support more and more over time. There have also been disagreements between e.g. the security division and management where one department says go and the other says the opposite.

The interviewee says that the biggest competition is the small companies. These companies are fast movers and can rapidly change the circumstances of the market. At Securitas, processes are slower and more carefully conducted, but they rely on the brand and the extensive experience and they're widely spread competences. A challenge when launching innovations is also to do it at the right time. The market might not be ready for a change and there must always be an understanding of the market in order to implement a new product or service in a sustainable way.

**Constraints**

One of the constraints comes with the Securitas brand and their field in security. The Securitas brand is an advantage, but it also brings responsibility. The customers trust Securitas and it is of great importance that it remains this way. Therefore innovations

are examined very carefully and there can be no gaps. This entails slower processes that are necessary to maintain their status and credibility, but reduces their dynamism.

Securitas doesn't deliver their own products but they supply services including products. These services include video surveillance, fire brigades and much more. Securitas is also aware of the rapid market changes of today and the fact that competitors will copy them. Therefore they do not seek to patent products/services but benefit from the best, already existing solutions.

**Key drivers to the development within this area**

The management decided to introduce the innovation process to be able to strengthen and maintain their market position for a long term. Securitas wants to keep its knowledge leadership in the field and be able to meet future customer needs. It is a fast moving market today and it is essential to always be in the forefront but it is also necessary to assure that innovations are safe and brings value to the brand.

**Analysis**

This case was conducted to illuminate how large global organizations work during the introduction of new products and services. Securitas has 300.000 employees and is active in 54 different countries, which puts high demands on their processes around launches, both internally and externally. In order to understand the last part of the innovation process, the market entrance, the entire process plays an important role. This was concluded during the interview and was the underlying reason the case study is formed as a more comprehensive structure. The process in-

cludes aspects like idea management and promotion of innovation culture, which plays an important part in the result. This is an analysis about how the project processes are formed in accordance to the presented SIS standard.

When a new product or service is launched it should, according to the standard, follow the organizational context. This means that the product should align with the organization's competitive edge. In the interview it becomes clear what Securitas' competitive edge is, finding which products or services should proceed all the way to market entrance. Working closely with their customers enables them to identify the needs and interests of the market. By the establishment of collaborations with research institutes it helps Securitas to align their launches with insights of the future.

The planning for an innovations success is conducted by detailed analysis of each product or service in terms of security and regulatory constraints. This is an important part of the process in order to sustain a strong and reliable brand. As much as this protects the brand it also limits the organization's ability the work dynamically. This became clear in the interview when it comes to identification of concurrences. The interviewee claims that the biggest competitors are the small companies that can easily penetrate the market and can act fast.

The enabling and driving factors in order to enable a successful market introduction are both focused internally and externally. When it comes to internal systems they focus a lot on the internal communication. By making sure that people feel involved they can lower the internal resistance and enable the internal success of the product. Externally they enable the

success by early involvement of relevant departments. By using their inputs and making sure that they are aware of the benefits of the service or product it enables them to maximize the outcome of their work. These parts are in accordance to the standard.

When the product is launched at Securitas there are well developed sales and marketing plans to enable the success of the product. Securitas has a relatively small marketing budget, which might be a limitation for some of their newly launched products. Mainly this could affect the success of products or services launched within the private sector where it is harder to sustain a relationship than with the corporate customers. The measurement of the success of new launches could also be something to develop further in the organization. Today the success is mainly measured on return on investments where some literature today argues that measuring innovations based on financial analysis tools reduces the capacity of the organization to innovate<sup>1</sup>. There is a potential to further investigate the tacit value that the product brings. Examples of aspects to investigate are brand perception and brand awareness spread over the different markets where Securitas is active.

The innovation process at Securitas has similarities to the New Product Development process (NPD) see figure X below. The process begins with an idea from management or individuals. The idea is later screened within a team for further investigation and, depending on the value of the idea, the next step is concept testing. The valuation of an idea is conducted by per-

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1 Christensen, C. M., Kaufman, S. P., & Shih, W. C. (2008). Innovation Killers: How Financial Tools Destroy Your Capacity to Do New Things. *Harvard Business Review*, 86(January).



Figure 4.6 - New Product Development

forming business analysis and market testing. If there is a market potential for the idea and it is aligned with the organization’s business strategy, the next steps are product development and launch of the product to the market and commercialization. This is an effective and formalized way of working with innovation across teams. The required steps in the NPD ensures success of a product or service since it creates an understanding of customer needs, competitive environment and the nature of the market in which the product or service intend to compete<sup>2</sup>.

The innovation management process in the SIS standard consists of four phases where they have simi-

larities to the actual case that is presented. The different steps according to the SIS standard are “Idea management, Development of projects, protection and exploitation and market introduction”. The idea management phase is about the creation, selection and evaluation of new ideas. The next phase is the development of projects where the aim is to further develop the project based on different criterions. There are often standardized ways of working such as the stage-gate model. Protection and exploitation is about determining different mechanism for protecting the idea and product within IPR. The final phase is market introduction, where the original idea is translated into a product or service that is ready for market and commercialization.

<sup>2</sup> Kenneth, B. Kahn (2013). The PDMA handbook of new product development (Third edition ed.). Hoboken, New Jersey: John Wiley & Sons Inc. p. 21



# ICA

Implementing an innovation division can be a challenging task as it involves changes in how the organization works. How ICA works today with innovation is presented from an overview perspective and concerns their entire innovation process.

## ICA - Implementing innovation

Implementing an innovation division can be a challenging task as it involves changes in how the organization works. Designing an innovation process that suits your organization and your circumstances is difficult. The ICA case illustrates an example of how to go about to start up an innovation division at an organization, what innovation process they are working with today and what the future developments are. The case was chosen to highlight an organization that recently has implemented an innovation team. This generates interesting insights on the early challenges that occur and how to handle them as well as what different sources that can be used for inspiration and what obstacles that is possible to encounter.

How ICA works today with innovation is presented from an overview perspective and concerns their entire innovation process. If nothing else is mentioned the information in the case is based on an interview with the person responsible for innovation at ICA.

### About ICA

The ICA group is the biggest operator within fast moving consumer goods, FMCG, in the Nordic countries. In FMCG they are a franchising organization where merchants privately own the stores. Apart from that, they are active within banking and real estate. They have 21.000 employees, with a majority in Sweden. ICA has its own product division called ICA's own goods. We have met a team manager for the innovation work, with a main focus on bringing forward new unique products to the product portfolio. The interviewee has been a part of the innovation team from the start and gives us her picture of how

it is to start up an innovation division. According to the interviewee, innovation at ICA is mostly focused on product innovations. It can be new products as well as development of current products such as new packaging or delivering unique customer value.

### Description of how they work

#### Why they work with innovation

To set up an innovation process ICA used both internal and external sources, with the goal to formulate the innovation process best suited for ICA. In their first innovation project they had support from a consultancy firm that focused heavily on the initial steps of innovation such as identifying customer segments etc. The consultancy firm presented an innovation process to ICA, who later modified this according to their view of innovation and what they found important. To be able to formulate the best innovation process for ICA they studied different innovation processes to get inputs. They also read innovation management literature, participated in workshop training and used different networks to find inspiration. Help was also gained from other organizations working with the subject. ICA found the other organizations helpful and willing to contribute with their knowledge about the challenges they face as well as the processes they use. They also used a management consultancy firm to formulate the process and the in-house design team who already works with innovation. Subsequently they used this information to sort out what parts best-fitted ICA to formulate the innovation process.

The overall process of building an innovation process the interviewee summarizes as: gathering as much info and knowledge as possible together with using consultancy firms with certain parts, and putting this together to the solution best fitted to ICA.

The interviewee feels that the future standard in innovation management would have been a good help and checklist when the innovation process was set up. The standard would have been a useful complement to identify relevant aspects and together with other sources of information built an innovation process. ICA definitely sees a need to have a checklist for innovation management to lower the risk that something important is missed.

**The innovation team**

ICA has an innovation plan that is presented by the management. The innovation plan consists of a number of key areas to base the innovation work on. These areas are market trends, customer target groups and product categories. This plan is shared with purchasing and product management who approves the plan. Then this plan is evaluated every one and a half years to check the relevance of the plan and to follow up the results.

One of the divisions that are following this plan is the innovation team. The innovation team, were the interviewee is the team manager, consists of seven people and works as in-house consultants. Different departments of ICA can use them to receive support when developing new products or services. The innovation team works with three different topics; a target group, an identified trend or a product category. The team has the capacity to work across all categories, but can also focus on one specific category. Today they

work by an innovation process where they generate ideas based on analysis and customer insights. The team might be requested to help with some smaller projects, if someone has an idea for example. Then the team conducts a shorter analysis workshop and concept generation with less strict framework and decision makers.

The bigger innovation projects are managed with a clear framework and certain deadlines. The decision makers and project management team are set before the project start so that it is clear who makes the final go/no go decision. This is important because each innovation project runs in high pace during a short period of time. The organization sets high demand on quality in their products during product development to ensure the quality of the new products. This means that the development time is much longer than the innovation time. The interviewee believes that longer innovation periods would generate more comprehensive concepts and that the high quality demand sometimes constrains the innovation work.

**Innovation process**

ICA uses an innovation process that is briefly explained in this chapter. Before the analysis, a subject or an issue is selected. This could be a current trend like for example the health trend or a certain buying pattern among the customers.

**Analysis**

The content of the analysis depends very much on the project but focus is on understanding the subject or issue. It can consist of trend analysis, customer insights of different kinds, qualitative and quantitative data collection and more. For smaller projects the innovation team can do a smaller scanning via a

quick visit at a particular area of interest. The analysis generates areas of insight such as; convenience, health awareness and ecology, luxury and many others. These areas of insight establish the foundation for the idea generation.

### **Ideation**

Workshops are used as the main tool for idea generation. Before the workshops the innovation team put a lot of effort to create an inspirational environment. They sort the defined subject or issue within a number of areas. Each area then receives inspirational material that has the purpose to inspire people to generate ideas. The workshop participants should be able to come there and be inspired and get their creativity boosted so that they can generate the best ideas possible. The people invited to take part in the workshop comes from different divisions within and outside of the organization. The interviewee describes it as getting the right combination of the right people that are creative. This includes getting a mix of knowledge to stimulate cross sectional idea generation. The product category managers are also invited since it is important that they are involved in the development within their category. People are chosen from the innovation teams networks within the organization. But the invited people differ a lot from project to project and there are examples of store managers and chefs being invited to workshops to. The people who are invited need to be aware of the trends and have an interest in the area in order to contribute with novel ideas.

The workshops are carried out with support in a few structured models to boost creativity and generate ideas. The duration can vary from a couple of hours to a full day where the participant goes from station to station where each station represents one area. The

ideas generated are then bundled according to different areas and evaluated. If the idea has potential it is brought to concept development.

To make trend analysis and identify novel ideas ICA have developed an app where people can upload pictures on observations they make and receive comments. Chosen people from different areas are invited to use this app.

### **Concept development and testing**

The concept development is described as the trickiest and most challenging part. The concepts are developed in-house and suppliers are involved in the later product development stage. The concepts are tested in-house together with the customers during the concept development phase. This is an iterative process with a goal to find the best concept solution. Concept development is based on ICA's own developed framework/checklist. In this phase the purpose is to identify the actual value by using the four P:s (price, product, promotion, place). After concept development the ideas go to product development.

### **Innovation measurement**

Measuring innovation is a difficult process. At ICA, the interviewee explains that it is easy to only focus on the sales numbers of new products. This could give a bad picture of the actual success factor of the new innovation because it takes a while for customers to change their buying behavior and being attracted to new products. The interviewee points out the importance of looking at other aspects, such as brand perception, new customers to the stores and more returning customers. The interviewee says that especially the brand perception of ICA's own branded products have increased as a result of the innovation

projects. The brand division once a year conducts a survey and interview customers to measure the perception of ICA.

**Future of innovation at ICA**

The size and diversity of ICA make the future possibilities for innovation work endless according to the interviewee. The next focus is to innovate the existing products, for example with more innovative packaging.

**Processes and methods**

ICA wants to develop their own methods within innovation so that they perform the best possible result in each innovation project. In the future the interviewee would like to have more models and processes to structure the work. The important part in the models is yet that they are flexible and adaptable to the situation and still leave room for creativity.

**Idea management system**

Today they have a smartphone application for collecting material and to identify trends. However, only some employees at ICA use this. The interviewee claims that they would like to develop this system further and create a comprehensive idea management system. The beneficial aspect would be that the idea management could be handled in the same place. That new ideas can be collected sent to the right recipient, analyzed and given feedback on. The aim is also to make it easier to collect ideas from a more diverse set of sources like customers, suppliers, store managers etc. A working idea management system would also enable much of the analog work today to become digital and therefore more visible to more people.

**Internal acceptance**

There is a need to continue with the internal marketing of the innovation team. More departments need to be aware and know about the innovation team and what they do. This is needed so that more departments use the innovation team. It is starting to happen that departments contact the innovation team to get help. This is a development that shows a potential future for the innovation team outside of the own-product segment.

**Innovation strategy**

The innovation work follows the strategy set from top management. There is no defined innovation strategy for ICA right now but the interviewee feels that this would be good and hope for one in the future. The closest to an innovation strategy ICA comes today is their innovation plan.

**Key Divisions**

Market division is important, as the innovation team needs marketing internally. The market division also communicates the need within the organization. This is important so that the work of the innovation team is connected to what is considered important and prioritized in the organization at that point. For the innovation projects it is important that the affected division within the organization is onboard and feel ownership of the innovation.

**Key Persons/Positions**

To make the innovation work possible at ICA there are a number of important people at different positions that needs to be onboard. The ones considered most important are the managers who communicate

the strategy, purchasers to find suppliers, product managers and people within the market division and brand managers.

## Contributions

The effects that can be seen two years after implementing innovation work at ICA are clear, “It is a fantastic difference” says the interviewee. They already have twice as many own branded products compared to before. Today they are able to work with concepts that involve a wider range of products compared to only launching single new products. A major difference is also that they launch unique products to the market. Nowadays they more often find themselves at the frontline of new products and concepts, in opposite to being more of a follower, which was the situation before. These effects from innovation have enhanced the brand awareness about ICAs own brands. Introducing an innovation team communicates to the rest of the organization that innovation is important and an innovative culture is spreading.

## Challenges

Implementing innovation at ICA has been a fight for acceptance in the organization during the first two years. In the beginning people were skeptical towards the whole thing. The first project that the innovation team undertook was a problematic project that faced many obstacles and people started questioning the team. But as time progressed and the innovation team showed that the work they did had effect, more and more acceptance was gained. Now, after two years, the interviewee feels that most people supports, accepts and are positive towards the innovation team’s work. The main reason why people

are skeptical is due to unawareness of the purpose of the team and that people are protective of the existing products. It is also hard to convince people that a new product will not only bring sales but also build a brand and brand building is one of the purposes with the innovation division as well. The struggle to gain acceptance within the organization is something the interviewee has heard from others that have implemented innovation processes. It has been beneficial that the innovation projects have been focused on consumer products. The reason is that the processes are relatively short and the innovation team can show fast results. High sales prove that they are a valuable resource in the organization.

## Mistakes that were made

If the interviewee could go back in time and change how she implemented the innovation team she would have said no more often. What she did was to agree to all proposals just to deliver value to the organization and get new product. She especially feels that the first project they did was a bit too complex to start with and something she should have said no to. She also feels that she should have put up a framework of what they would do and not, to in an earlier stage create a framework.

She realizes more and more over time that a great way to get people onboard is to make sure that the idea providers themselves feel that they came up with the idea and that the innovation team only helped. Getting the product division owner to feel that they own the idea is an important part in the work.

## Constraints

A unique aspect ICA has to take into consideration is their franchising solution. The store managers choose themselves what products they want to have in the store. So there are two stakeholders that the innovation team needs to satisfy with their new products, first the store managers and then the store customers. There is always a strong focus on the combination that products should make good profit for the stores and also deliver high value to the end customer. Yet this has caused problems when new concepts have been launched.

This double value chain affects the innovation work in the way that, in the extensive innovation projects, store managers are involved in the innovation process. The interviewee points on the importance of anchoring the ideas and making the store managers feel that they can influence the future products.

## Key drivers

Drivers for continuing to develop the innovation team and its work are important. At ICA, the interviewee feels that the brand division notices that the innovation projects correlate to the plan for the ICA brand. They have a number of focus areas that will increase the perception of the brand and the innovation team can make projects within these areas to raise the perception. The own-product manager and the product category managers are also drivers for developing the innovation work.

Overall the strategy from top management influences the drive for innovation. If there is a focus in health from top management the innovation team will focus on that. Another driver to continue to get the support

to develop the innovation team is to keep delivering successful projects. If the team proves that they can deliver big projects with great results they will get more and more operating freedom.

## Analysis

It feels like ICA is aware of the context of the organization and also has a purpose for the innovation division. When it comes to the organizational perspective links to the standard can be seen, but it is clear that the innovation division is relatively new. There is a support from the top management at the organization, but the innovational culture of the organization is lacking. The result of this is that the innovation division might face internal resistance in their work. One direct measure that can be conducted by the management and something that is missing according to the standard is an innovation strategy for the organization. By stating an overall innovation strategy, the culture of the organization might have a positive effect. This would probably also ease the work for the innovation division since they would have a clearer long time goal to aim for. By developing a strategy it would probably also make it easier for the innovation division to develop certain tools and processes. A solution to reduce the internal resistance might also be to involve more people in the process from different departments in an early phase.

Further, ICA does not have a comprehensive solution for innovation management today. The reason behind this might be because this phase requires a lot of resources to sustain if it grows bigger. The interviewee claimed that this phase is something that ICA is working on an organizational level and that this will be implemented in future work. The results that this

phase would bring might be an increased acceptance in the entire organization since more people can be involved in the innovational work.

The developments of projects are to some extent structured at the innovation division. Each project follows a certain model and process, yet the interviewee claims that this is something that the division wants to develop further. This is a good example of the contribution that the standard can bring to companies. Especially for an organization like ICA where the lead times are relatively short. In their case it would be beneficial to maximize these processes in order to get out the most of this part of the process. By implementing extensive solutions the time for planning might be reduced and the time can be allocated to other parts of the project. The processes that are used today are to some extent in accordance to what the SIS standard suggests.

The innovation team work today separately from the other organization as an own division and act as in-house consultants across the entire organization. The innovation team is a separate unit of the organization and can be viewed as ambidextrous since they pursue both radical and incremental innovation<sup>1</sup>.

The innovation process at ICA consists of four phases analysis, ideation, development and concept testing and differs at first sight from the four phases idea management, development of projects, protection and exploitation and market introduction that is presented in the SIS standard. The analysis phase is about scanning the market for trends and customer buying

behavior as well as identifying different mechanisms that affect the potential outcome in the market. This can be compared with the idea management phase in the SIS standard. The main contribution of idea management is defining the scope of idea generation. The next phase is ideation where ICA provides workshop for participant to generate ideas and is also equivalent to the idea management phase in the SIS standard. Concept development and testing has similarities to development of projects where the aim is to further develop project based on different criteria.

There are often standardized ways of working such as the stage gate model and ICA works the 4 P:s (price, product, place and promotion) along with suppliers. The reason why ICA does not have a protection and exploitation phase in their innovation process in because they to a large extent work with products that are not developed or produced by themselves.

<sup>1</sup> Michael, L., Reilly, O., & Iii, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8–30

# Ericsson

Idea management can be seen as a cornerstone in the innovation process. Ericsson was chosen to illustrate idea management as they are considered one of the leaders in this area and have worked with idea management for many years.

## Idea management at Ericsson

Idea management can be seen as a cornerstone in the innovation process. Without highly qualitative ideas the rest of the innovation process will have difficulties in generating successful innovations. The Ericsson case will illustrate how leadership for innovation and particularly idea management can be implemented. An in-depth description of how ideas are managed at Ericsson and how their IdeaBox system functions.

Ericsson was chosen to illustrate idea management as they are considered one of the leaders in this area and have worked with idea management for many years. The information in the case comes from an interview with an innovation leader at Ericsson.

### About Ericsson

Ericsson is a global provider of communication networks, telecom services and support solutions. It was founded in 1876 and currently employs 114 000 people worldwide. As a provider of network infrastructure, approximately 40 percent of the world's mobile traffic passes through equipment provided by Ericsson. It is a highly innovative organization, with 35 000 granted patents. The vision for Ericsson is to “be the prime driver in an all-communicating world”, and it sees itself as the driving force behind the Networked Society. It has its headquarters in Stockholm, Sweden but has customers in over 180 countries around the world.

As a technology organization in a highly innovative industry, it is crucial for Ericsson to be innovative and stay ahead of the competition. Their philosophy is that the best ideas come from inside the organiza-

tion, in the minds of its employees. To make use of this pool of ideas, Ericsson uses an idea management system, which allows managing the employees' ideas, selecting the ones fitting the strategy and enables collaboration throughout the entire organization, worldwide.

### Description of how they work

#### Idea management at Ericsson

There are two ways to handle idea management, namely ‘push’ and ‘pull’. The ‘push’ concept expects people to push their own ideas. The common method for this approach is to open a suggestion box, into which employees can submit their ideas or suggestions. This can be an IT system or paper based. Later a committee reviews the ideas submitted to the box where promising ideas will be selected for further investigation. Critics of the concept like to call this the “black hole of idea management”. Many of the ideas in the suggestion box will be disregarded because they do not fit the organization's strategy or there are no resources available to implement them. The result is a lot of wasted time and energy to generate ideas that nobody wants or needs. It will also de-motivate idea providers when they see that their ideas cannot be implemented and do not get any feedback on their ideas.

Ericsson used this approach before, and came to the conclusion that it was time for a new system to channel the innovative ideas of their employees and make them fit the firm's strategy. They realized “it is more important to form a strategy first and then generate

ideas”. Other people in the organization already identified this need and purchased their own idea management systems for their departments. The result was fragmentation and no exchange of ideas between the different parts of the organization, in addition to high purchasing costs for the software.

Ericsson was in need for a ‘pull’ based idea management system, which would also fit all parts of its organization.

The solution is a system called IdeaBoxes. It is based on the concept that people ask for ideas regarding a specific topic or problem, and people then can submit their ideas to solve the problem. This makes it less likely that people submit ideas that nobody wants or needs and saves time and resources in the review process.

The system is designed so that each problem or topic has its own IdeaBox. The person who is in need of ideas opens the box, and he or she is automatically assigned the idea manager. There are certain requirements for opening an IdeaBox:

- The innovation need/scope needs to be specified
- There has to be a process to take ideas forwards
- Necessary resources to implement the ideas have to be available
- The box manager needs to have the motivation to screen ideas and interact with idea creators

If these criteria are fulfilled, everyone in the organization can open a box and ask for ideas.

On the idea provider side of the system, everyone can submit their idea to the system if they can describe it in a meaningful way. Once the idea is submitted, the idea provider can automatically place it in up to five IdeaBoxes by using keywords. The ideas are visible for everyone using the system and can be rated or commented on. It is possible for people with similar ideas to connect and develop their solution further. In a follow up, the idea manager can rate the ideas in his box and select the most promising ones to develop them further.

Important for Ericsson is, they only provide the IT system. The implementation of the system, how employees are rewarded and how ideas are handled and implemented, is up to the different departments or the idea manager themselves. The reason for this is to allow for a maximum of flexibility, to make the system fit to every different department and their various ways of working. Ericsson provides a set of tools, methods and training, as well as suggestions on best practices. These tools and methods are supposed to assist box managers in the evaluation and follow through of submitted ideas.

**Motivation**

Motivation for employees to contribute most often comes from an entrepreneurial spirit according to the interviewee.

*“People want to contribute and be recognized for it.”  
-Innovation leader at Ericsson*

Other motivators, such as providing a free dinner to the contributor of the best idea are used as well, even pure cash rewards. However, these cash rewards are more exceptional and not recommended. It is up to the box manager to stimulate motivation and how

to reward the best ideas. As mentioned before there is a reward system inside the IT-System to stimulate employees to put effort into their idea generation. The box manager can hand out virtual medals to the best idea contributors. These medals serve, as a proof of recognition and can, besides being a confidence boost, is an advantage in career development.

## Key Functions and key persons

There are three groups of key persons in the Ericsson IdeaBoxes system. One of them is definitely the employee providing the ideas to the idea boxes. Without the idea providers the system would not be working.

Managing the boxes and taking care of the ideas provided are the box managers. They have to make sure that their boxes are kept alive and appealing for the employees to provide ideas too. How this can be done is explained earlier in this case. General criteria for taking on the role as a box manager are presented in the previous section in this chapter. The criteria are in place to make sure that an opened box will be taken care of and that there is a motivation to take care of the ideas that hopefully will be provided. It is important to make sure ideas are being further developed but also to send an appreciative signal to the idea providers and through that stimulate a continuous flow of new ideas.

At a group level in the organization, the innovation management is responsible for translating the business strategy into innovation strategy across the organization and ensuring that the idea management systems purpose are aligned with the organization's innovation strategy. How the innovation strategies should be developed is often managed on a local level though by the management in the different depart-

ments. This does not automatically indicate that top management is not involved but on the contrary top management also provides guidelines on a group level.

## Contributions

The main contribution from the IdeaBox system is the steady flow of new ideas. These ideas may through correct management lead to innovative solutions where the organization wants to see a development. The interviewee stresses the fact that the innovation work should be driven by need, from a pull perspective, and not by a bunch of ideas that are not taken care of because there is no need.

Another important function of the IdeaBoxes system is to translate business strategy into innovation strategy. As previously mentioned the business strategy is the basis for the innovation strategy, by pointing out in which areas there is a need for innovation. The IdeaBoxes are the tool to stimulate and guide the idea generation into the desired direction. The IdeaBoxes are a tool to communicate where new ideas are needed to all employees. There is a link between the business strategy on a group level, the innovation strategy on the department level and individual level in the organization.

The open system provides the possibility for collaborations. Once an idea is posted, other employees can view it, comment on it and suggest improvements. In the example provided by Ericsson an employee posts an idea in several idea boxes. Since the entire organization can view the idea, an employee in another department finds it interesting and posts valuable comments and suggestions to it. This leads to the two employees deciding to continue working on the idea

together and develop it further. The box manager can choose to stimulate the process by recognizing the idea with adding different statuses to the project like “for interest” and “for action”. After further development the box manager decides to initiate a pre-study and chose to include the idea providers to utilize their motivation and knowledge. The point of this is that the collaborative development often leads to more developed ideas of higher quality.

However it is also contributing by being a tool for development of ideas by the idea providers. It is very valuable for an organization like Ericsson to have a system where the idea development is self-organizing to a large extent. The system also provides a tool for the project managers to work with to solve problems in their projects and to find a solution where there is a need for innovation.

### Challenges

Ericsson identified that the biggest challenge is to maintain a level of energy and engagement for the IdeaBoxes throughout the organization. One way of doing that is to provide feedback through the system. By doing so, employees can learn what makes a good idea and what they can improve to make their next idea more successful. As a result Ericsson hopes to keep people motivated and engaged. However it is currently difficult to make a statement if this is the case and the organization on ways to facilitate this aspect of educating people through feedback.

One social aspect of idea sharing is that people can be scared to submit their ideas to a public space. This can have multiple reasons, but most frequently it is the fear of embarrassment when an idea is not good enough or that the person is scared of being judged

on the quality of the idea. The problem is also more prevalent with older employees. Younger people seem to be more likely to submit ideas and are less likely to be afraid of being judged in public. Ericsson identified multiple possible explanations for it. One is that younger people are used to social platforms and their use. Another explanation can be that everyone can comment on ideas. Older employees, who are usually higher in the hierarchy might not want to discuss their ideas with younger and lower ranked employees, as they fear to lose authority.

Other challenges that Ericsson identified with their Idea management system:

- The more people participate and submit ideas, the more feedback there needs to be given. This can add a substantial amount of work.
- Large companies can have different innovation needs in the different parts of the organization. Defining the innovation need to focus the effort on relevant places is a critical success factor for an idea management system.
- To run a sustainable and successful idea management system, it needs to be rooted in the organization culture and management processes.
- The organization needs to make sure that the idea management is working as it should and delivers value. If the perception of employees is that the ideas they generate are not good enough, they will lose motivation in providing ideas and the idea management process will in the long run become unproductive.

- Ownership of an idea needs to be clarified. This is especially important when extending the system to include customers or suppliers.
- It is sometimes difficult for top management to conceive the value of the work put into idea generation. Managers can be skeptic about idea management when they feel like the employees do not do the work they suppose to do. It is important to make the value of idea management obvious to them. It is necessary to understand that failed ideas are not a waste of time but provide to the learning of each employee, and in the long run increase the overall quality of ideas.

## Constraints

There are constraints to idea management systems that organizations need to be aware of when they want to implement them. The idea management systems are most successful for the companies that have multiple innovation needs that are changing over time. This idea management often works when there is a diverse group of employees, customers and partners that have a different perspective that can contribute to solving those needs. This situation is typical for large firms where they have innovation needs and innovation work at different locations and levels. It might also be applicable for companies that want to get information and help from their customer and suppliers.

The organization needs to have the capability to handle and act on the ideas provided by the system. It is important that the top managers are collaborating with the agenda and that it is calculated in the budget and strategy so all resources needed are available.

They also need to be prepared to learn as you go because every organization is different and the method is not the same for everyone. This means that the way of integrating and utilizing the system will be different for each organization and need to be tested to know which way that works the best. There is no final recommendation how to utilize idea management system in the most successful way and there is still a lot to learn about the subject.

## Key drivers

An important driver is that the focus within Ericsson is on innovation. This is the foundation for the contributing culture and is a major reason they work with idea management. From earlier studies Ericsson has learned that the best ideas come from the employees<sup>1</sup>. Studies found that most innovation ideas are created internally<sup>2</sup>. Another source of ideas are business partners and customers, which is the reason for expanding the IdeaBoxes to include customers and suppliers. Because of the focus on innovation it is important for an organization to gather as many ideas as possible and gather them from the right sources. As mentioned earlier people want to contribute and the IdeaBoxes are a solution to facilitate this in a good way. Another driver to establish an IT based IdeaBox is to be able to take care of, and evaluate all ideas that have been shared. This also increases motivation and stimulates the idea sharing.

1 IBM Innovation Horizon (2006)

2 Christian Terwiesch and Karl Ulrich Innovation Tournaments: Creating and Selecting Exceptional Opportunities (Harvard Business Review Press; 5.2.2009 edition, 2009)

## Analysis

A key point in the SIS standard is to maintain a steady flow of ideas and to motivate employees to contribute to the idea management system. When it comes to creating motivation for the employees to contribute with ideas to the system, Ericsson seems to focus a lot on the entrepreneurial spirit and will to always move forward. Recognition is also something that is built into the system. Research on the subject also points to the fact that one of the strongest motivators for people is the recognition of their contribution<sup>3</sup>.

Another important function of the system that has a strong influence on the ideation process is the benefits of network connectivity to create valuable ideas. This is for example seen in studies where the general conclusions are that a well-established network<sup>4</sup> and social capital<sup>5</sup> has a significant impact on the number and quality of ideas generated by an individual.

The scope of idea generation described in the SIS standard is important to guide the idea generation to desired outcomes that align with the innovation strategy. In this case the interviewee emphasizes the point of using idea boxes that aim to solve a specific problem and therefore request ideas within that specific area. According to him, this has been a successful way of avoiding the creation of “black holes”, idea

boxes where ideas just diminish because there is no specific need for them.

A potential issue however could be that there is too much governance in the idea generation process. This could lead to a potential lack in the generation of radical ideas with a high level of novelty. This is managed by creating a box dedicated for ideas for significant new business opportunities where ideas that do not fit in the other idea boxes. If this is enough or not to keep up the novelty level in the ideas is difficult to say. Ericsson has at least thought of the problem and taken it into account when designing the system.

Far from all ideas that are being generated are used or even recognized at the time they are posted in the system. But they can still be of great value in future projects. That is why it is important to have a well-organized system that can take care of all posted ideas and make them both visible and accessible at later stages. This is also a clear recommendation in the SIS standard. By labeling the posted ideas with tags to make them more easily traceable for someone looking for ideas within a certain area is one way that Ericsson deals with this.

The SIS standard clarifies the importance of fostering an innovation culture within the organization among employees, this can be achieved by promoting “Idea support, communication, openness and collaboration” from top management. Ericsson fulfilled the requirements when creating the IdeaBox, it became a mechanism for nurturing an idea from employees and collecting them in a database to facilitate and capitalize on the ideas in a near future. The IdeaBox is an open system through the entire Ericsson organization where every employee can post an idea and get feedback. Based on interest there is a possibility

3 James M. Kouzes Encouraging the Heart: A Leader's Guide to Rewarding and Recognizing Others (Jossey-Bass; 1 edition, 2003)

4 Hemphälä, J., & Magnusson, M. (2012). Networks for Innovation - But What Networks and What Innovation? *Creativity and Innovation Management*, 21(1), 3–16

5 Björk, J., Di Vincenzo, F., Magnusson, M., & Mascia, D. (2011). The Impact of Social Capital on Ideation. *Industry & Innovation*, 18(6), 631–647

that two individuals from different divisions can be matched together to develop further an idea.

Our overall conclusion of Ericsson is well-implemented idea management system that is aligned the SIS standard. There are well-established mechanisms for generating and maintaining a steady flow of idea due to the IdeaBox. The flow of ideas at Ericsson is the cornerstone of future innovation where employees and manager must capitalize on the ideas into commercial products or services that will yield in profitability in order to sustain competitive advantage in a changing dynamic market.

# St. Jude Medical AB

Innovation performance measurement is difficult and many companies have problems with the task. This case aims to illustrate how innovation performance measurement can be implemented and executed in a successful way.

## St. Jude Medical - Innovation performance measurement

Innovation performance measurement is difficult and many organizations have problems with the task. Measuring innovation is important for the organization because they can get information on what parts of the process that are performing well and what parts that need improvements. The information from the measurements gives organizations the necessary information to base decisions on. St. Jude Medical was chosen to illustrate this topic because they have previously worked a lot with measuring innovation performance in their desire to improve innovation capabilities within the organization. This case aims to illustrate how innovation performance measurement can be implemented and executed in a successful way. If nothing else is mentioned the information in the case comes from an interview with a former employee at St. Jude Medical AB.

### About St. Jude Medical

St. Jude Medical AB was previously a part of the St. Jude Medical Group but has now ended their operations in Sweden. The organization, like the whole St. Jude Medical Group was a developer, manufacturer and seller of medical devices in a broad area. Their initial focus was on heart diseases where they supplied defibrillators, pacemakers, etc. Later they expanded to heart surgery equipment and other diseases like Parkinson's disease. The global organization still exists, but the Swedish subsidiary has been closed down. In Sweden they focused on R&D and sales, with about 600 employees. Every reference to St. Jude Medical refers to the former Swedish organization St. Jude Medical AB. There is a large need for new in-

novative technologies in the medtech industry, which was the reason for St. Jude Medical to have an explicit focus on innovation and R&D.

### Description of how they work

To improve the innovation efforts and new idea generation in the organization, St. Jude Medical implemented a performance measurement system, which was based on the MINT-Framework (Measuring Innovation Capability in Teams). The framework provides methods on how to measure the innovation performance. It focuses on the areas of innovation elicitation, selection, impact and ways of working. For each area it provides measurement indicators that can be used to develop a measurement system in an organization<sup>1</sup>.

The implementation of the measurement system and selection of measurement indicators was up to each department. The reasoning was that each department chooses indicators that best fitted their needs and requirements. Usually one person was assigned to collect and analyze the indicators and present them on weekly, monthly or quarterly meetings. The frequency depended on how dedicated and involved a department was in the ideation process. In general, research departments analyzed their performance data more frequent than departments who only were involved in formal product development and made improvements on existing products. After some years of working with the measurement system, a central

<sup>1</sup> Nilsson, Regnell, Larsson and Ritzén; Measuring for Innovation - a guide for innovative teams, Applied Innovation Management, 2, Innovative Management, 2010

innovation board was established to track and coordinate the organization's overall measurement efforts.

**Key purpose**

To be able to quantify the values of innovation actions in general was the main function of the performance management system at St. Jude Medical. This enabled managers to communicate results of innovation related actions. The measuring of performance was also aiming to stimulate the efforts to increase the number of patents just by functioning as a motivator to produce more innovative ideas.

**Key persons/position**

As mentioned earlier there is in every department one person responsible for collecting the indicators and analyze them. These persons also presented the data on weekly, monthly or quarterly meetings, depended on dedication and how involved the department was in the ideation process. There was also one person responsible to collect and analyze all indicators towards the whole organization, put it together and evaluate them. This person presented the result on yearly basis and gave the organization measurements on their innovation work.

According to a study<sup>2</sup> the organization at St. Jude Medical had a role called innovation champions. They participated in the innovation board and were given great freedom in the actions that they initiated. A general task of the innovation board was to coordinate and share experiences from different activities to improve the innovation work. The study that worked as a base for the article showed that these innovation

managers in general had no personal goals related to the innovation, except of their responsibility for the performance of their department. They saw the measurements as a tool to communicate their goals and important areas to focus on.

**Contributions**

The results of performance measurement contributed to awareness and motivation to keep generating innovative ideas that can lead to new patents. It became a tool for managers to legitimate actions to build innovation capabilities.

One substantial thing that the innovation measuring has provided was confirmation of results to different campaigns or efforts to promote idea generation and other innovation work. The implementation of the MINT-framework did among other things result in a summary of performance metrics over two years, 2008-2009. This summary showed new product related ideas submitted, new prototypes built and conceptualization projects started per employee. This summary is presented in figure 4.7. The information was used to evaluate innovation efforts and to justify them.

**Challenges**

An important challenge within the MINT-framework was comparability between different people or departments. Because different departments can use different measurement indicators, it was difficult to compare them on an organization level or get a good measurement of the overall performance.

Another important challenge was to communicate the purpose of the measurement to the people working with processes that were being measured. Measure-

<sup>2</sup> Nilsson, Regnell, Larsson and Ritzén; Measuring for Innovation - a guide for innovative teams, Applied Innovation Management, 2, Innovative Management, 2010

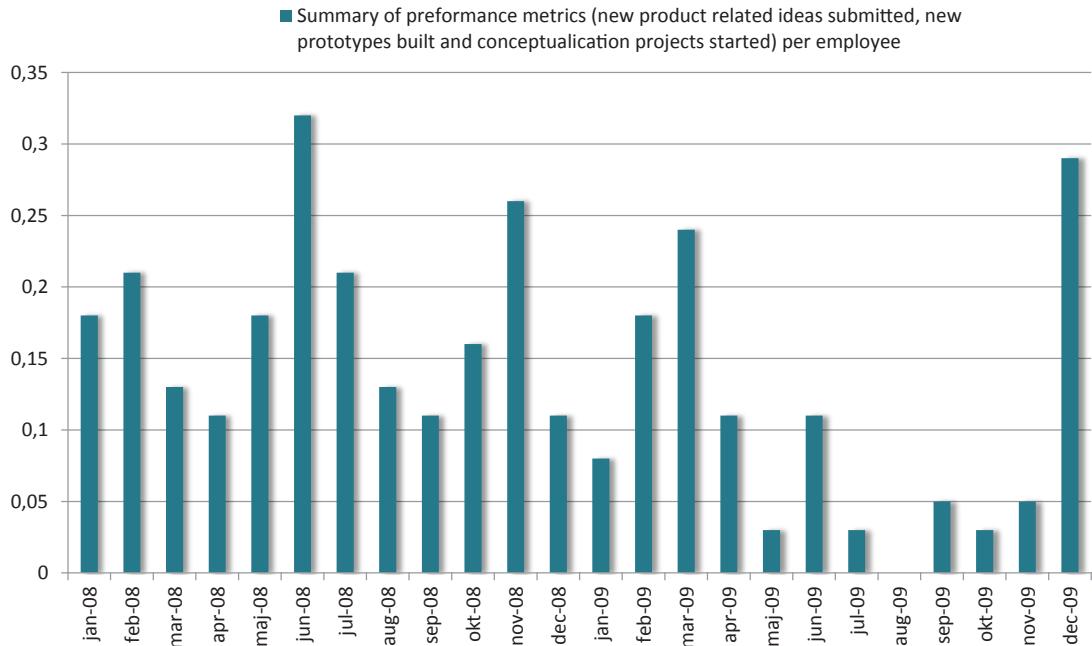


Figure 4.7 - Performance metrics

ments can be motivating, as they show improvements over time or allow a comparison to other people and departments. However, some employees will feel pressured by the measurement, as their performance over time will be clearly visible. Others might argue that you cannot really measure creativity and innovation and therefore not agree to the measurement.

### Constraints

There were some constraints with the bottom-up approach applied in the MINT-framework. It depends to a large extent on how much effort managers and employees put into investigating, collecting data, analyzing data and making changes suggested from the

data. It is also their responsibility to change indicators from time to time depending on their requirements. At St. Jude Medical they found it was difficult to balance how much that should come from top management and from the bottom. The balance was important to make people motivated and dedicated.

It was also difficult to measure small improvements that did not lead to changes directly but in interaction with other changes it did. Finding indicators that measure the influence of these changes and fit to the same framework was also a challenge. St. Jude Medical solved these problems by introducing a second framework for measuring small improvements.

The usefulness of measuring innovation highly depends on the area of work. Research departments generally benefitted more from it than the formal product development and were also keener on implementing it. The reason for it was that they already had a process for idea generation and management and could also allocate more time for the measurement. As a result they made use of the measurements in a more interactive way. It became a tool to see how the outcome of their work changed depending on which actions they took.

### **Key drivers to the development within this area**

Innovation performance measurement was introduced to highlight changes in the way of working and if St. Jude Medical got more ideas of higher value by working with feedback from the measurement. It was also a way to make innovation visible and as important as other areas of the organization.

Another key driver for working with performance measurement was to motivate employees and managers to work with innovation. The feedback that was received from the measurement could be used to change the way of working in a positive way. The MINT-framework was developed as a tool to support improvements in the way of working and learn from it. Since the tool visualized the indicators it could also be used to motivate people and show improvements over time.

### **Analysis**

St. Jude Medical found a reasonably efficient and valuable way of working with measuring innovation. As with measuring in many other areas, for example financial, production efficiency etc., it was mainly

used as a tool for evaluating performed actions and motivating future actions.

The result of the innovation process within an organization can be divided into financial or non-financial measurement. The SIS standard lists number of ideas, market share, efficiency of process, brand awareness, and impact in the number of employees as a result from innovation and intangible assets as non-financial indicators. But using monetary measurements is also described as a key indicator in the SIS standard.

According to the interviewee they did not try to quantify the innovation efforts in monetary terms. If the reason for this was that it is very difficult or if it just did not seem to add any value to what they got out of the measuring was not entirely clear. However, one could reason that there would definitely be of value to express the gains from innovation actions in monetary terms but it is simply very difficult to do in an accurate way.

It also became clear that the performance measurement worked better in some departments than other. This was to no surprise since it is obvious that some work within an organization is better suited for measuring. It is likely that this also depends on the motivation of the persons working within a specific department to develop methods for this. In earlier research made by Nilsson et al on St. Jude Medical they identified five different groups in the organization that differed in their roles and their approach towards increasing innovation capability including measuring innovation. The groups are presented and described below.

*Innovation administrators:* An innovation board containing R&D directors and innovation champions.

They were coordinating and following up on building innovation capability and innovation performance measurement. Their reason to use innovation measurement was to increase the number and quality of patents and project proposals as well as monitoring the results of performed actions.

*Professional inventors:* Innovation champions that make no difference between innovation, research and inventions. Their role was to manage ideas for new research projects and how to measure performance. Their objectives to measure were to improve patents and research project proposal processes.

*Progress evaluators:* Evaluating and improving the organizational processes. Their objective to measure was to improve product development processes.

*Innovation leaders:* People who were responsible to build innovation capabilities in the early development stages, or were dedicated to innovation and technology management. Main objectives for them were to increase collaboration and prototyping as well as increasing the number of accepted project proposals.

*Innovation laggards:* Like the innovation leaders they were a part of the development department but were identified as individuals with lower ambitions regarding innovation work. Their objectives within the measurement system were to improve organizational processes.

These groups were identified by the authors of the report and not by the organization itself. If these roles would have been used to analyze the level of ambition of individuals in the organization it might have helped increase the innovation capabilities of the organization. In the development department they identified people with different level of ambition.

The roles might have helped to clarify in which areas where motivation needed to be raised, for example among innovation laggards, to be able to improve the innovation capability in general.

A big challenge was to choose the right indicators. When people are able to decide on their own which measurement indicators to use, they might only use indicators where they perform well already. This will affect the measurement in a negative way, because indicators that do not perform well are being neglected. Indicators should be chosen to make chances for improvement visible, and when there are measurements they should give valid feedback.

Another issue that could pose a problem was that measurement could put negative pressure on employees to perform. An important function for the measuring that was presented was to stimulate improved efforts in the research and development areas. But this stimulation can also turn into negative pressure that will hamper innovation processes that is in need of creative freedom and environment.



# Chapter 5

## Discussion

# Discussion

The interviewees from the cases are all having or have had similar positions at the organizations. The limitation of the interviewees' positions enabled us to investigate their ways of working from a similar perspective. The constraint of the chosen interviewees could be that they do not handle all the aspects involved in the IMS themselves, which is taken in account. One aspect that is not included is the management's perspective, which for example includes strategic planning and resource allocations. For the survey, the majority of the organizations that participated is actively working with innovation and can be seen as in the forefront of the field. This sample helped us to see how the leading organizations within the field are working, and answer our stated questions from their point of view. By investigating companies in the forefront, it is possible to get a comprehensive perspective on how far the development of innovation work has progressed. In this chapter we elaborate around the initial questions that were stated in the introduction and also reflect in general around what the possible contributions of the standards might be.

## What are the similarities between the cases and the standard?

### Innovation process

One overall similarity that was identified is the innovation process. Among the interviewed organizations where this process was illuminated during the interviews, all of the organizations could declare for their process from an emerging idea until market entrance. All of the asked organizations are working with phase-gate systems, were certain milestones

have to be reached in order to proceed to the next phase. A clear phase-gate system is the suggested way of working according to the standard. There is a clear pattern that this part of the standard is well implemented among the interviewed organizations. On the other hand, the results from the survey show a different picture. Among the surveyed organizations there were only 63% that claimed that they have an innovation process.

The reason why the results from the interviews and the survey differed could be that the innovation process is a part of the development process in some organizations. If the standard was used to a wider extent, this could help organizations to identify certain parts of their existing work and define them as parts of their innovation work. By highlighting that it is a part of the innovation process, possibilities to develop these phases further with innovation on focus opens up. A common constraint mentioned in the cases was the limitation of time for the innovation process. As many organizations cannot spare more resources and time, one solution is to use the standard to streamline the innovation process and make it more efficient. This is interesting for both organization setting up their innovation process and the one that already have one.

There was also a pattern that the organizations are working with gathering of inputs from a wide range of stakeholders. During the interviews it became clear that a regular feature was that the organizations used a wide range of inputs, both internal and external, during the development phase of the innovation process. From the survey it was shown that

most organizations used this approach, but the extent of the collaboration was limited. On a 5 level scale, most surveyed organizations claimed that they collaborated to an extent of 2-4 with external parties. In the standard it is stated that an internal and external collaboration is a part of the key drivers in the IMS. By working with a wide range of people, a certain problem can be tackled from different directions. This approach enables the organizations to develop comprehensive solutions and scan internal and external expectations. Some of the interviewed organizations are also working with this approach in a general perspective, which means that they scan without having a particular product or services in mind. This approach is especially used on an external level. ICA for example sends out a yearly survey to their customers to identify in which direction they should aim. To conduct frequent scanning's of the market is suggested in the standard and enables the organizations to align their innovation work with the expectations of the market. What was interesting was that the majority of the surveyed organizations claimed that the innovation work is affected to a high extent of inputs and trends, yet the collaboration work was not that extensive. One reason behind this could be that the organizations do not have the knowledge that is needed to collect inputs in a sustainable way, which could be helped by the use of the standard.

In the initial phase, idea management, it is suggested in the standard to have a systematic process to handle emerging ideas. This approach is conducted by Ericsson, Innventia and Securitas, where the organizations have an idea management system. The system of Ericsson is far more complex than the one used by Securitas and Innventia, but all of them are taking care of emerging ideas at the organizations. For the other

organizations this is a field for improvements, but they are all working in the right direction. There is an outspoken awareness that there should be a system for this, but they have not implemented such system yet. This phase was not investigated in the survey.

Another significant different was the phase after a product was launched and how the success was measured. The standard states that there should be both a financial and a non-financial approach to review the success. In the cases where this phase was illuminated, the majority did not have a developed measurement systems for both aspects. St. Jude Medical was the only organizations that made a comprehensive analysis of the non-financial factors. In the Securitas case there were mainly a focus on the return on investments and the non-financial aspect was not stated as a priority. In the case of ICA they send out a general survey to get an awareness of how the brand is perceived, but neither in this case was there a non-financial measurement for particular products. Some suggested non-financial measurements are; brand awareness and reputation, impact in the number of employees as a result of innovation. The reason behind these different approaches might be that they are active in very different markets. The non-financial measurement of particular products might be too time consuming for an organization like ICA since they have a lot of different products. But even though the organizations are active in different markets there could be benefits of non-financial measurements. By using non-financial measurements the organizations could use the numbers to convince the management as well as the rest of the organization of the contribution of the innovations. Therefore this is something that could need some improvements among many of the investigated organizations.

### Organizational context

One identified aspect where the organizations differed from the standard was in the organizational structure and in particular the innovation strategy. IMS is a novel topic and some of the interviewed organizations have relatively recently implemented innovation divisions. There is a clear goal among the organizations that these divisions are set up to enhance the innovation work at the organizations. What sometimes has been missed out is an overall innovation strategy from the management. There is often a support for the division but there is seldom an outspoken vision. The results from the survey show similar results to the interviews, but there were still 32% of the surveyed organizations that claimed that they have an innovation strategy. An outspoken vision is, according to the standard, a vital part to align the work with the organizations' long-term strategy. One reason why this aspect is lacking might be because it is hard to convince the managers about the contribution of the innovation work. The contribution of the innovation work might be more than return on investment and these intangible contributions are hard to communicate. The absence of a strategic plan might also influence the innovation culture of the organization in a negative way. By stating a long-term strategy the acceptance for innovations could be enhanced and the organizations could possibly be able to work on more radical innovations as well. If the organizations want to follow the recommendations from the standard, this is something that the interviewed organizations could improve.

The right mindset of the employees is stated as an important part in the standard. In all the investigated cases there has been a challenge to motivate employees and to make them use the developed tools

in their innovation work. According to the standard, there needs to be an outspoken innovation culture through the organization to enable the right mindset and optimize innovation work. It was identified that the interviewed organizations are aware of this but they are all on different levels of solving this problem. Ericsson and St. Jude Medical have already started to work on this and they motivate by giving feedback to the employees in order to show their appreciation. The reason behind this is because the employees' contributions need to be nurtured by support and attention. Innventia and ICA on the other hand are aware of this, but claim that they need further support from the management to make this work. It is needed to be kept in mind is that Ericsson began their development of tools for innovation work long before the rest of the organizations and they are still struggling. This is a sign that innovation culture is not something that is created in a day and that it takes a long time to make it permeate the organization. All of the interviewed organizations are working in the right direction since they have all implemented innovation departments. Yet, if the organizations want to follow the recommendations from the standard there is a need for further improvements.

An interesting reflection is that the organizations that had a more widely spread innovation culture are the ones that also have specific tools. For both St. Jude Medical and Ericsson, the innovation culture seemed more extensive. The reason behind this might be the use of tools that involves the entire organization. The conclusion that could be drawn from this is that innovation tools do not only contribute to the innovation work, but also communicates a culture. The communication of an innovation culture is something that could be used as an incentive for other organizations

to allocate resources to implement these kind of tools. A reason behind this might be that tools communicate that the organization finds the employees' ideas valuable and shows a support. But it is also important to point out that in order to make a tool successful it needs maintenance. This aspect was stated in the Ericsson case and is something that should be taken in consideration by organizations that are planning to implement it.

### **How can the standard contribute to the innovation work at organizations?**

It is clearly shown that the demand for support in the innovation work is extensive among the interviewed organizations. Even the organizations that have a well-structured innovation process claimed that they are always looking for improvements. A main contribution with the introduction of the standard would be the easiness to grasp it. This enables parties that are not working with innovation daily to get an overall picture of IMS, what it includes and see the contribution that it can bring. This could especially be interesting for managers since they are introduced to a framework that can be used as a tool to help them in their innovation work.

As seen in this discussion chapter, there are many aspects in the organizations work structure that needs further improvements if they want to follow the standard. By using the standard as a general framework to identify the vital parts in each area of interest it will help them to improve in a sustainable way. One part of the standard is that organizations can gain a lot on collaborations and this approach should be used in their improvement of their innovation work as well. It was identified in the interviews that organizations are

willing to help and collaborate. Just as different inputs can benefit the development of a certain product it can help organizations to develop their processes and by that reach new heights.

### **Is a standard the right way to go with innovation?**

This is something that has been debated since the beginning of the development of the standard and there are different opinions in this question. What might be the foundation of the resistance is the association to the word standard. The resisting organizations might be associating the word standard to a framework that needs to be followed in detail. They might also find that this approach is not the right way to go when you want to enhance freethinking and bring out innovations. After the investigation in the subject we have come to the conclusion that it is important to communicate that the standard can be used in different ways. This book shows that different organizations are at different stages of the implementation of their innovation work and the need for the standard is varying. Therefore the standard should be seen more as a framework for organizations to work with innovation. As mentioned before, the standard can be used in many different ways where two of them are to identify gaps in organizational context and processes. It can also use as a framework for development. By that we find that the standard can contribute to the innovation work. What we argue could be changed is the word standard, which could be interpreted as "the right way of doing it", which might be misleading. The standard is not a tool to control the outcome of innovation but a tool for working with processes, which is what should be communicated.

## Insights from the work

Working with this book has given us insights about how innovation management is handled in practice. Our view is that there are many organizations that claim that they are innovative and this is often communicated in an early stage when you hear about an organization. It was therefore interesting to see if this is a facade of fancy words or if there are a structured plan for how to work with innovation as well. What surprised us was that these organizations are still struggling to promote innovation culture and gain support throughout the entire organization. It was also surprising that it was a lack in support from management in terms of resources and promotion. Why this surprised us was because it is the management that has decided that the organization should focus on innovation, but when it is implemented it is not given full support. We believe that this might be because of the uncertainty and risk that innovation brings. Managers are afraid that there are too many uncertainties within innovation and therefore the support is lacking. The quarterly financial plans with a high pressure from shareholder might also be an influencing factor. It is still easier to incrementally develop the business and make major changes when the market needs it. The problem that we see is that it might be too late to do in then.

One aspect that supports our view on lack of commitment from management is the surprisingly low implementation of innovation strategy and/or vision in these organizations. These organizations would never conduct their normal business without a strategy and vision, but yet they feel that innovation can be generated without these statements.

Now we have looked into the forefront of organizations working with innovation and it appears to be a more unexplored area than expected. The passion and interest seems to be significant among the people we have met. The future is dependent on management and employees willing to change and make use of the tools and processes that are available today. The question that remains is where the rest of the organizations that are not in the forefront are in their innovation work?



Innovation is considered as a vital part for the success of organizations. To provide a common basis and orientation for companies, innovation management systems have recently been standardized in the Innovation Management Standard SIS-CEN/TS 16555.

This book investigates how five different organizations currently work with innovation management and how their management system compares to the new innovation management standard. A survey which was sent out to multiple organizations completes the picture and gives an insight into a wider range of organizations and their way of working.

The reader of this book will get an understanding of how innovation management systems work in practice and be inspired on how to implement it in their organization.