



DEGREE PROJECT, IN PROJECT MANAGEMENT AND
OPERATIONAL DEVELOPMENT, SECOND LEVEL
STOCKHOLM, SWEDEN 2014

ALINING PROJECT SCOPE AND DELIVERABLES WITH BUSINESS STRATEGY

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Abstract

Projects are increasingly being used by organizations as a tool to create new products, provide services to customers and to improve internal processes and operations. Provided that new projects are continuously initiated across organizations, the question proposed by this research is: how can businesses make sure that the resources invested in implementing each project, bring significant benefits to the strategy the enterprise is aiming to achieve? In other words, how can organizations ensure that there is a clear alignment between the projects they develop and the business strategy? The research is based on reviewing relevant literature and a case study analysis. The findings of this research, a straightforward framework that can be implemented by any organization, is based on focusing on three project management processes: project definition, requirements management and scope management. These processes are essential in ensuring an alignment between the project scope and the business strategy, and that is where project managers and project owners should focus their attention.

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1. Introduction

1.1. Background

The link between project management and business strategy has been explored in the past decades with the focus of literature being placed on exploring how business strategies can be implemented through projects and through strategic project management processes. In the context of many organizations facing challenges with implementing strategies, project management is emerging as a robust and coherent solution that can be applied to organizations of different sizes in both the corporate and non-corporate sector.

In the introduction of *Linking project management to business strategy* Shenhar et al. (2007) write that project management is entering a new era in which projects are part of the “*strategic, business-related activity in the organization*”. He states that an increasing number of organizations are interested in increasing their competitiveness by approaching their projects in a more strategic manner and aligning them with the business strategy. Other authors have explored the alignment between business strategies and project management as a functional area vital to the success of the organization. Srivannaboon & Milosevic (2006) argue that organizations should align their business strategy with the project management strategy in order to ensure that they will focus on the right projects that will deliver on the objectives set by the business strategy. Moreover, the authors claim that such an alignment is difficult to achieve due to miss-communication of the business strategy.

Grundy (1998) recognizes the potential for cross-fertilization between project management and strategy implementation as well, and proposes a number of analysis tools, such as root cause analysis, implementation forces analysis or stakeholder analysis, which can be used along side traditional project management tools to enhance the performance of strategy implementation projects.

In the *Handbook of project-based management*, Turner (1999) provides a framework for implementing business strategies through portfolios, programs and projects. This approach, namely breaking down the implementation of the business strategy into projects which would be clustered in programs and portfolios, is preferred by other authors reviewed, for example Jamieson & Morris (2004).

1.2. Research focus

The research developed in the area of strategy implementation through projects is highly valuable, as it expands the benefits of project management beyond the traditional view based on projects having to deliver “hard”, technical outputs. Nevertheless, it can be argued that the majority of projects run at any given time in an organization are projects whose outcome is a “hard”, unique output - be it a product or service - and not strategy implementation projects. *The question that this paper is aiming to answer is how can the scope of such technical or functional oriented projects - in contrast to strategy implementation projects - expand beyond the traditional approach, which is to deliver the desired output as efficiently as possible, and towards emphasizing the project’s contribution to the organization’s strategy.*

Artto & Wikström’s (2005) bibliometric study concludes that projects are an essential component of business development and competitiveness, as well as strategic sight. Furthermore, Englund & Graham (1999) argue that employees often perceive projects as not being linked to a coherent strategy and feel that they are working on too many projects, many of them unnecessary.

We can therefore claim that all projects run by an organization, be it strategic projects or technical/functional ones, should be aligned with the organization’s business strategy. Consequently, all projects will have a direct and coherent contribution to the goals set through the strategy. Simultaneously, employees will be more engaged in delivering the expected output by having a more comprehensive and transparent view of how projects ultimately increase the competitiveness of the organization. This will change the focus of all levels of the organization (senior managers, managers, project managers or employees) from getting the job done to getting the *right* job done.

1.3. Research question

The overall aim of this research is to explore *how can projects developed by organizations, which do not have a comprehensive project management structure in place, be aligned with the company’s business strategy?*

1.4. Research goals

Specifically, with focus on the *initiation and planning stages* of the project life-cycle, the goals of this research are to:

- i. Review current literature and explore frameworks, methods and/or tools available for aligning project scope with business strategy.
- ii. Outline a framework, based on the literature review findings, for aligning project scope and deliverables with business strategy.
- iii. Present and assess a case study on aligning the scope of an Intellectual Property process improvement project with the company's business strategy, in order to verify the validity of the proposed framework, as well as identify its benefits and possible shortcomings.

1.5. Method

This research paper is designed to explore the topic of aligning project scope and deliverables with the business strategy through two methods: literature review and case study.

As an initial step, existing literature on the topic of alignment between project scope and strategy is reviewed. Recommended methods and best practice on the research topic are extracted and presented.

Subsequently, one real-life case study is described with the aim of, on one hand, increasing the understanding of the complexity of the topic, and on the other hand, performing an in-depth contextual analysis.

Finally, after performing the case study analysis against the outcome of the literature review, conclusions are drawn and recommendations are made with regards to improving the practice of aligning project scope to business strategy.

1.6. Limitations

There are several limitations to this research. Firstly, the topic explored by this paper is limited to aligning projects with business strategy in the framework provided during the initiation and planning phases and it does not extend to other stages of the project life-cycle, such as execution or controlling and monitoring.

Secondly, this research does not explore the topic of alignment between business strategies and project management approached as a strategic tool - as this has been done in previous research more extensively - but only between business strategies and projects as specific endeavors aimed at delivering a specific output. Moreover, the research is set to identify an alignment framework that can support

organizations that have not yet implemented an advanced project management process or strategy, or organizations that do not have extensive experience and knowledge in project management.

Finally, this research uses a single case study to test the validity of the proposed framework based on literature review. This could limit the ability to generalize the results, but it provides a clear and detailed insight into the experience of a project team trying to align their project's scope and deliverable with the company's strategy and goals.

2. Research method

The aim of the research is to explore how project scope and deliverables can be aligned with business strategy. The study first reviews exiting literature on the topics of project management and (business) strategy with the purpose of identifying a model or framework for how the scope of any project that aims to deliver a technical or functional result can be aligned with the organization's strategy. As a next step, in an attempt to validate the feasibility of the identified theoretical model or framework, a real-life project is selected for analysis against the proposed framework.

The assumption is that the recommended alignment framework can be applied to any type of project initiated by an organization, operating in either the corporate or non-corporate sector. Therefore, the framework is analyzed against a real-life project with the objective to:

- Evaluate whether the alignment framework, proposed based on the findings of the literature review, is indeed suitable to be used in practice in its current structure and set-up;
- Provide a more wide-ranging view of the benefits, as well as possible shortcomings of the alignment framework, therefore identifying possible areas of improvement.

This section – Research method - will offer detailed information about the research strategy that is applied in order to verify the validity of the theoretical framework, as well as information about methods and tools of collecting the needed data for performing the research and how that will be analyzed.

2.1. Research strategy

This paper is founded on two main research strategies:

- An **inductive** approach to **literature review** provides the theoretical foundation in answering the research question. The research will begin by collecting information on the topic of the link between projects and business strategy. Subsequently, the information will be scrutinized and based on the patterns identified in the existing literature a theory will be proposed on how can projects be aligned with business strategy.



Figure 2.1. Overview of inductive research

Source: Adapted from (Blackstone, 2012)

- An empirical study will be carried out through a case study. More specifically, this paper will take a **deductive** approach to a **descriptive case study**.



Figure 2.2. Overview of deductive research

Source: Adapted from (Blackstone, 2012)

Research method: case study

Yin (2009) recommends that the case study is a suitable research method “when a ‘how’ or ‘why’ question is being asked about a contemporary set of events over which the investigator has little or no control.”. Considering that one of the main goals of this paper is to explore *how* the proposed alignment framework can be applied to an existing, real-life project, Yin’s definition is highly fitting for the given research question. Moreover, for this research to be successful and result in valid findings, the researcher should not have control over the project chosen for the case study, only evaluate how the framework can be implemented to the project as it is.

The aim of using a case study as research strategy is to provide an *analysis of the context and processes* that clarify the theoretical issues being studied (Cassell & Symon, 2004). The case study therefore provides, an opportunity to investigate not only the selected project, but also the context and environment in which the project is being developed. This supports the third research goal, which is to identify the benefits and possible shortcomings that the proposed framework can bring to the project and the organization as a whole. This can only be done by looking at the effects it would have beyond the project itself.

Generally, the different types of case studies - exploratory, explanatory or descriptive - overlap, however the descriptive case study is characterized by its aim to convey a descriptive theory. Most importantly, through the descriptive case study the researcher is able to present the case through a theory-focused perspective. Furthermore, descriptive case studies do not move beyond the theory explored and do not describe unexplored territory. In addition, descriptive case studies do not perform analytic comparisons between groups (Mills et al., 2010).

The descriptive case study was identified as being most suitable for the research question of this paper because it provides an opportunity to narrow the focus of the research to a single project. Furthermore, this method allows for an *in-depth study* of whether the proposed framework for aligning project scope and deliverables can be applied in practice, to a *real-life situation* and what effects it can have.

By taking a deductive approach to the case study, this research starts with a theory identified as most compelling (a model or framework for alignment between project scope and strategy), and then it tests its implications with data (a project developed by a multinational company) (Blackstone, 2012).

To be noted that alternative research methods could have been adopted in the endeavor of this paper, such as conducting questionnaires or surveys in order to collect qualitative data from a broader group of people involved in the project selected as the case study. It can be stated that a quantitative approach would not have been suitable for this empirical study because the research is aiming to identify and verify *how* can projects be aligned in a straight-forward manner with the organization's strategy. Therefore, in order to answer the research question, a qualitative analysis is

most appropriate and it can be claimed that a quantitative evaluation could not bring added value to the research.

Research validity and reliability

According to Yin (2009) the quality of the research design is assessed against four criteria:

- **Construct validity:** it implies identifying appropriate operational measures for the notions that are studied.
- **Internal validity:** this criteria can be applied only to explanatory and casual case study, so it is not applicable to this research.
- **External validity:** it involves establishing the area to which the research’s findings can be generalized.
- **Reliability:** it requires that the study can prove that the data collection and analysis will produce the same results if replicated.

Yin (2009) continues by providing a list of procedures (tactics) to be applied to the study as to guarantee that the research was designed in a manner that is both valid and reliable.

TESTS	Case Study Tactic	Phase of research in which tactic occurs
Construct validity	<ul style="list-style-type: none"> ◆ use multiple sources of evidence ◆ establish chain of evidence ◆ have key informants review draft case study report 	<ul style="list-style-type: none"> data collection data collection composition
Internal validity	<ul style="list-style-type: none"> ◆ do pattern matching ◆ do explanation building ◆ address rival explanations ◆ use logic models 	<ul style="list-style-type: none"> data analysis data analysis data analysis data analysis
External validity	<ul style="list-style-type: none"> ◆ use theory in single-case studies ◆ use replication logic in multiple-case studies 	<ul style="list-style-type: none"> research design research design
Reliability	<ul style="list-style-type: none"> ◆ use case study protocol ◆ develop case study database 	<ul style="list-style-type: none"> data collection data collection

Figure 2.2. Overview of deductive research

Source: Adapted from (Yin, 2009)

The research ensures its **construct validity** by collecting data through different methods and from multiple sources. Details regarding data collection are described in the next sub-section. Moreover, a chain of evidence becomes apparent, as

there is a clear link between the questions asked during data collection, how data is described and the conclusions drawn from the analysis. Finally, the research is submitted to the project owner - who contributes with information about the case study - to review and provide feedback concerning the description and analysis of the study. This validates that there are no discrepancies between the reality of the case study and its depiction in this paper.

The **external validity** of the research requires that a specific domain should be defined, to which the findings of the study can be generalized. This research focuses on the project initiation and planning processes, which can be improved by applying a scope-strategy alignment framework, whose use is best suitable to projects developed by organizations that approach project management in a straightforward and practical manner. The case study is used as empirical evidence that the theoretical framework, put forward by the literature review, can be generalized through practical uses.

For the research to be **reliable**, its findings should be replicated if other researchers repeat the study. To facilitate the possible future replication of the case study, the research method and operations are transparent and clearly described throughout the paper. Furthermore, this research includes the main collected data such as interview transcripts and project documentation as appendices to support the reliability of the data collection.

2.2. Data collection

The case study investigated in the course of this study is conducted at the headquarters of AB Electrolux, a multinational manufacturer of household and professional appliances, located in Stockholm, Sweden. More precisely, the project selected for the case study is developed by the Intellectual Property department, which is a global support function within Electrolux.

The project that is the object of the case study is aiming at improving one of the internal processes that the IP department is responsible for. Specifically, creating a more efficient and targeted manner in which relevant data can be extracted from the IP management software and presented to the department's internal clients (e.g. R&D managers or decision makers, product development project managers etc).

This particular project was selected because it is not part of a strategy implementation program, neither is it part of a project portfolio managed at the top

level of the organization. The project fits the criteria of being a rather typical project developed internally by one of the functions within the company with the scope of delivering a clear, functional result: better data extraction and reporting. Furthermore, the staff of Group Intellectual Property is made up of, almost exclusively, attorneys, assistants and lawyers, none of them having extensive project management knowledge or experience in managing projects. Hence, the department would benefit from a framework that can be implemented without additional resources or effort, in order to ensure that the projects they run are relevant and bring strategic benefits to the organization.

Moreover, AB Electrolux was selected as a suitable organization because it does not have a specific project management strategy or a clear management system enforced across the organization which would ensure that all projects developed within the organization bring a direct contribution to the strategy. The company did implement a project management process applicable across the organization, but that is to be used exclusively for product development projects, and is therefore not applicable for the selected project for the case study.

In order to perform the analysis between the identified theoretical framework and its possible real life application certain information about the project is needed, namely data about the processes, tools and methodology employed by the project manager and her team during the initiation and planning phases of the project life-cycle. This paper does not focus on any type of quantitative measurement, but on the *description of the case study and the qualitative assessment of the proposed theoretical framework against the real-life project of the case study*. Therefore, the collected data reflects the descriptive and qualitative nature of this case study.

Data collection methods

So as to obtain sufficient information regarding the processes used during the planning phase and how it was ensured that the project scope was in line with the company's business strategy, *open-ended interviews* were conducted with the project manager, Sigrid Staub-Lemmer and the project owner, Hanns Hallesius, who is the Head of Electrolux Group Patents. The transcripts of the two interviews are attached to this paper as appendix 4 and appendix 5, respectively. The open-ended interview is an important source of information for case studies because it allows asking the

respondents questions about facts that are of concern for the study, but also the respondent's opinions or suggestions regarding the matter at hand (Yin, 2009).

Moreover, a large amount of data was collected through *participation in project team meetings*, where most of the planning activities were carried out. Since the author of this paper is familiar with the environment in which the project was developed, *observations* make up a significant amount of the collected data. The observations were made during project meetings, or while reviewing project documentation, or by having individual conversations with project team members.

Furthermore, the project team *documented* all the information concerning the project scope definition, deliverables and stakeholder analysis and it was made available for the purpose of this research. This documentation is included in this paper as appendices (Appendix 1 to 3).

2.3. Data analysis

The collected data concerning the case study is described and analyzed following the structure of the theoretical framework for alignment between project scope and business strategy: *project definition, stakeholder requirements management, and scope management*.

The case study is described and subsequently a comparison is made between how the project was initiated and planned and how it could have proceeded through the initiation and planning phases, if the proposed theoretical framework would have been used instead. This prompts an analysis of, on one hand, the real life processes, tools and methods used and, on the other hand, the processes proposed by the theoretical framework. The outcome of the analysis provides the opportunity to:

- Identify possible advantages and disadvantages of the theoretical framework for alignment between project scope and business strategy; and
- Provide recommendations on how can future projects developed by the Intellectual Property department of AB Electrolux ensure an alignment between the scope and deliverables of the project and the company's business strategy.

2.4. Limitations

It is rather common that the case study is perceived as a less rigorous methodology compared to others available, such as experiments or surveys. This is rooted in faulty

case studies that were not well documented and for which data and evidence was not properly collected. This is not to be expected from this paper, as the procedures to be followed to ensure that the research is rigorously performed were explained in detail in this section.

Another common criticism of case studies is the possible bias present in data collection and analysis, but this is a challenge that other methodologies are facing as well. Regardless of the method used, researcher should always be aware of possible cognitive biases and actively work to avoid them.

Perhaps the greatest opposition faced by case studies concerns generalization. It is commonly questioned how the findings of the case study can be generalized. By performing an empirical analysis of a case study, the researchers generalize the theoretical findings they proposed in the first place. So the case study in itself is a generalization of a theory put forward. Similarly to experiments, in order to confirm or refute the validity of the findings, the case study can be repeated and applied to other situations, by different researchers (Yin, 2009).

3. Literature review

As the scope of this research is to explore the opportunities for project scope and deliverables to be aligned with an organization's strategy, the literature review begins by providing a more detailed *insight into some of these concepts* – strategy, project scope management and intellectual property (as the case study concerns a project developed in an intellectual property department). Next, this section studies the existing literature and its views on the *connection between project management, projects and strategy*. Further, the research explores the options for aligning project scope and deliverable with strategies, based on methods proposed by current literature, as well as trying to *identify possible new methods*. Finally, this section *describes the methods or framework* to be used by organization with the aim of aligning project scope and deliverables with business strategy.

3.1. Strategy

Strategy is associated with a multitude of areas and industries - from a company's social media strategy, to a nation's military strategy - and is therefore a word that can easily be misused or misunderstood.

The common thread across all contexts in which the word *strategy* is used points to strategy being about gaining a competitive advantage over other players. The competitive edge cannot be only about winning over the competitors, but it is also about creating value to stakeholders (Tovstiga, 2011). Such added value for the customer or other stakeholders can be gained either from performing different activities compared to the competitors or from performing similar activities, but in a different way. Such choice of differentiation - “*deliberately choosing a different set of activities to deliver a unique mix of value*” - defines an organization’s strategic positioning (Porter, 1996).

Mintzberg (2007) defines strategy more broadly, as a pattern of actions originating in a stream of decisions. Furthermore, he differentiates between *deliberate* and *emerging* strategies. According to Mintzberg deliberate strategies are developed according to a plan and trigger measured actions, while the emerging strategies originate in spontaneous actions, which are not in line with any particular plan. Interestingly, according to his research most companies’ strategies are, in practice, a combination of the two types he identified (Mintzberg, 2007).

Both Tovstiga (2011) and Mintzberg (2007) emphasize in their books the two dimensions of strategy: a rational, abstract dimension materialized through decisions, and an action-driven, practical dimension. These two fundamental approaches to strategy are usually divided, by both academia and managers, into *strategy development* and *strategy implementation*.

Developing the strategy involves a comprehensive analysis of the current state of the organization and rigorous decision-making regarding the direction in which the organization should head. The strategy will then guide managers and employees at all levels of the organization to make the right decisions, even in the fast-paced environment companies operate in today. Strategy implementation is a long-term effort of moving the organization in the direction defined by top management.

Strategy development

A significant proportion of the existing literature on strategy is focused on how companies can define the most relevant strategy considering their current state as well as the desired future state defined by the organization’s vision. This is an enormous challenge, as it requires extensive and iterative analysis, prioritizing and decision-

making. Some of the authors who explore the area of strategy development or definition have a very practical approach to the topic proposing models that can be followed by senior managers when defining an organization's strategy. Other authors have a more holistic and theoretical approach to the topic. Below, some examples examples of the two methodologies will be explored.

According to Rummler & Brache (2013), successfully developing an organization's strategy boils down to identifying four main factors: products and services, customers and markets, competitive advantage, and product and/or market priorities. The authors are of the opinion that when defining the strategy, top management must agree on the following: what is the organization going to do (products/services), whom will we do it for (customers/markets), why will customers choose us over competition and finally, where should the organization place its emphasis.

Rummler & Brache (2013) have a highly concrete approach to developing the strategy, supporting their view with specific questions, which can guide the top management team through the strategy definition process, step by step.

Based on the division between deliberate and emerging strategies, described above, Mintzberg (2007) proposes four distinct processes for developing, or rather forming, business strategies: strategic planning, strategic visioning, strategic venturing, and strategic learning. The four processes summarized by Mintzberg correspond to different approaches to strategy found among influential authors, such as Michael Porter or Peter Drucker.

Strategic planning implies developing deliberate plans for tangible future actions, while *strategic visioning* implies developing deliberate plans for broad, possible future actions. On the other hand, *strategic venturing* refers to patterns of tangible future actions emerging from existing patterns. Finally, *strategic learning* points to emergent patterns that result in broad future actions.

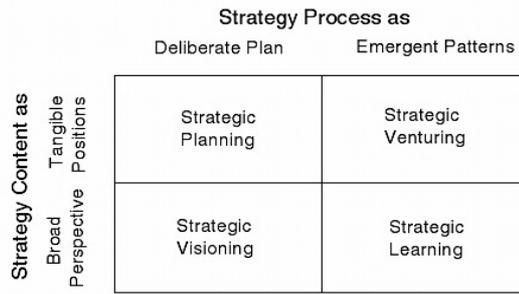


Figure 3.1. Four processes of strategy formation

Source: (Mintzberg, 2007)

In addition to his rather theoretical analysis of strategy as deliberate or emerging patterns, Mintzberg has written about the more practical side of developing a strategy, namely creating a plan for integrating the strategy into the operations of the company. He reviewed some of the most common pitfalls of strategic planning. Among the main factors he identified as contributing to faulty strategic planning is the lack of involvement of top management and/or line managers and personnel in the strategic planning process. Another pitfall is the focus on short-term problems, rather than long-term goals and plans, as well as isolating the planning process from the management process as a whole (Mintzberg, 1994).

Strategy implementation

Defining the strategy based on a comprehensive analysis of the current state and on envisioning the desired future state of the organization is only a part of strategy management. As challenging as that might be, putting the strategy in practice is a much greater effort extended over a long period. Many authors, as well as managers recognize that strategy implementation is as important, if not more important, than formulating the strategy. Successful strategy implementation is almost an unattainable goal, as nine out of ten organizations fail at successfully executing their strategy (Norton, 2012).

Robert Kaplan and David Norton have dedicated the past two decades to introducing and improving their strategy management model, the *Balanced Score Card*, which has been widely used by many organizations across industries in strategy execution. In an article published in Harvard Business Review, Norton points to *targets* as being the key factor determining the success of a strategy implementation effort. He believes that demanding and achievable targets will inspire and stimulate

progress within the organization and that they will pave the path to successful strategy execution. As little research has been previously performed in the area of setting targets for strategy execution, Norton proposes that benchmarking should be used in establishing achievable, but challenging enough target (Norton, 2012).

Successfully implementing the strategy requires aligning key organizational factors with the strategy, but such alignment is often focused primarily on functional lines and not cross-functional processes. Higgins (2005) proposes a model for cross-functional oriented strategy execution and change management, *Eight “S”s of Strategy Execution*. In this model, he identifies eight organizational factors, which should be aligned for successfully implementing the business strategy. The eight factors are: strategy and purposes, structure, systems and processes, (leadership) style, staff, resources, shared values (organizational culture) and strategic performance. Higgins believes that if the first factor, strategy and purposes, is not aligned with all other factors, the strategy implementation will most likely fail.

3.2. Intellectual Property

The World Intellectual Property Organization (WIPO) defines Intellectual Property (IP) as “*the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields.*” (WIPO, 2008). These legal rights have the purpose of protecting the creators of intellectual goods and services by providing them time-limited control over their productions. The rights apply only to the intellectual creation itself and not the physical product it might result from it (WIPO, 2008).

The UK Government defines IP as “*something you create that’s unique*”, be it inventing a product or designing its appearance, or a written work such as the contents of a brochure. The definition highlights that it is not an idea that can be protected through intellectual property, but its outcome or what can be done with that idea (UK Gov., 2014).

Intellectual property is divided in two branches: industrial property (comprising of patents, trademarks and industrial designs) and copyright (covering protection for literary works and architectural design) (WIPO, 2009). A *patent* represents a certificate issued - if requested through an application - by a country’s government office, which describes an invention and provides legal protection for the

patented invention so that it could only be exploited (manufactured, used, sold, imported) by the owner of the patent. An *industrial design* refers to the ornamental or aesthetic aspects of a produced item. Finally, a *trademark* represents “*any sign that individualizes the goods of a given enterprise and distinguishes them from the goods of its competitors.*” (WIPO, 2008).

As the financial value of IP developed in companies operating in knowledge intensive industries increased to the extent that it can sometimes overpass the value of their assets, IP transformed from being an area dealt with by legal departments to a strategic function that concerns the CEOs (Hanel, 2006).

3.3. Project scope management

The majority of projects being initiated by organizations have the target of bringing about change, be it through new products, services, processes or procedures. Considering the current highly competitive business environment, companies would become irrelevant and obsolete without projects as a part of their operations (Shenhar et al., 2001). Projects can have a significant financial impact on organizations; for example, HP Enterprise Services (EMEA) evaluates their revenues from projects at 60%, while the major management consulting firms estimate that over 90% of their income is earned through projects (Maylor, 2010).

Every project is a temporary effort initiated to create a unique product, service or result. Whatever the expected outcome, clearly defining the scope of the project and further managing it throughout the project’s life cycle is one of the key tasks of the project manager. Sufficient time should be spent at the outset of the project to define the scope and to ensure that all stakeholders sign off on it.

Project scope management is defined by the PMBOK (2013) as the “*processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully*”. The PMBOK identifies six processes that would facilitate successfully defining and controlling the project scope: plan scope management, collect requirements, define scope, create Work Breakdown Structure (WBS), validate scope, and control scope.

During the planning phase of the project life-cycle a plan should be developed for how the scope will be defined, approved and controlled. Next, requirements will be collected from each stakeholder or category of stakeholders identified by the

project team. The collected requirements, needs and interests will provide the input for the next process - defining the scope - which requires a detailed specification of the project. The outcome of this process will contain three elements – the project description, the acceptance criteria and finally the expected deliverables of the project. The deliverables will be broken down, during the next process into smaller, more manageable sections. The deliverables will be verified and finally validated by the sponsor/customer when the project is completed. Throughout the project life-cycle the project manager and his/her team must monitor the progress made towards meeting the project scope, as well as accommodate the approved changes made to the project baseline.

Defining the project scope can help create clarity and agreement about the project and what is to be achieved, as well as create commitment to the project among the stakeholders. Controlling the scope will ensure that project is developing within the set boundaries, avoiding scope creep.

3.4. Project management, projects and strategy

Although projects are still largely employed by companies to create concrete, “hard” outputs, project management is emerging as field that can support the “softer” components of an organization’s operations. As the use of project management is increasing and reaching different business areas, it is becoming a critical strategic tool. Project and project management as a whole are expanding their reach from getting the job done as efficiently and effectively as possible to getting the right job done which can bring the highest competitive advantage to the company.

Competitive organization operating in a global environment are shifting their focus from ensuring that projects deliver the desired outcome on time and within budget, to ensuring that the relevant business results are achieved through projects. This implies that projects are strictly scrutinized in terms of their scope and what they are aiming to achieve and how the project objectives and deliverables are linked to the business strategy.

A large proportion of the existing literature on the topic of project management and strategy alignment is focused on how business strategies can be implemented through project management, specifically by breaking down the strategy execution activities into portfolios, programs or individual projects. This sound top-

bottom approach can ensure a high degree of control over the implementation activities. Some of the work written on this topic will be reviewed because it will provide relevant information when exploring the opposite, bottom-up approach, or aligning projects to the company strategy, which is the topic of interest for this paper.

It is the view of Artto & Dietrich (2004) that managing individual projects does not bring sufficient value to an organization and that, instead, companies should focus on simultaneously managing batches of projects as a unified entity. This would ensure that the set of projects could be effectively linked to the “*ultimate business purpose*” (Artto & Dietrich, 2004). The authors propose that in order to achieve the expectations set by the organization’s strategy, it is the project portfolios that should be managed in line with the objectives of the strategy, and not single projects “*Management processes above projects must link projects to business goals and assist in reaching or exceeding the expectations set by company strategy.*” (Artto & Dietrich, 2004).

A similar method of alignment between projects and strategy through program management is proposed by Grundy (1998), a specialist in strategic management. He offers a set of tools and techniques borrowed from organizational change and strategic management, which can be applied to programs to increase the efficiency of linking the projects to the organizational strategy.

For example, Grundy recommends integrating a project’s stakeholder analysis (performed to understand the requirements, needs and interests of the parties connected to the project) with an Implementation Forces (IMF) analysis, which evaluates the enabling and restraining forces that affect the project. By combining these two types of analysis the project manager can dig down into the agenda of a particular stakeholder and identify the factors that enable or restrain the support that the stakeholder provides to the project.



Figure 3.2. Strategy and projects – the hierarchy

Source: (Grundy, 1998)

If Artto & Dietrich (2004) and Grundy (1998) focus their methodologies mainly on how project management can be employed to support strategy implementation, Hauc & Kovač (2000) approach the integration of strategy management and project management from a different perspective. Their solution is to merge the strategy definition with the project start-up phase. This will determine on one hand, that the strategic objectives will coincide with the project objectives, and on the other hand, the project start-up phase will be rapidly set up and drive the execution activities.

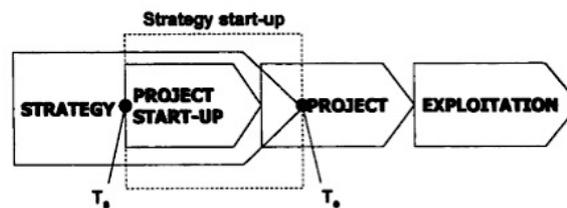


Figure 3.3. Strategy definition and project start-up

Source: (Hauc & Kovač, 2000).

These are only but a few examples of the extensive work done on the subject of strategy implementation through projects, or as it is named by some authors *project-based strategic management* (Hauc & Kovač, 2000).

3.5. Framework for aligning project scope and deliverables with business strategy

The methods described in the section above can prove to be highly effective in successfully aligning business strategies and project management for the organizations that choose a project-based tactic to managing their strategies, but what about the enterprises which make use of different management tools for their strategy development and implementation process? How do companies, which do not have such a top-bottom approach (strategy-program/portfolio-projects), ensure that the projects they run are aligned with the higher purpose of the business strategy?

One of the main findings of an extensive research performed by Shenhar et al. (2007) and published by the Project Management Institute is that strategic alignment is a two-way process, particularly that business strategy influences the planning activities of a project and that the outcome of the project has an impact on the organization's strategy.

For the remaining of this section the paper will explore the specific methods and tools that can be applied to ensure that the business strategy has an impact on the planning process of any project approved to be developed by the organization, and vice-versa.

PMBOK and APM on strategy and project management alignment

As they are the most comprehensive project management guides available, the PMBOK and APM BoK are a great starting point for identifying the possible links between business strategy and projects.

Jamieson & Morris (2004) reviewed the content of the two bodies of knowledge - the editions published in 2000 - and concluded that in order to move the organization's strategy into project strategy, there are two stages to be followed: *translating the business strategy* and *creating the project strategy*. The first stage entails integrating the business strategy into the planning processes of the project and this way setting the ground for the second stage, which implies developing the project's own strategy that is in line with the business strategy.

Translating the business strategy stage comprises, according to Jamieson & Morris (2004), of several project management processes:

- ***Project definition*** – corresponds to the initiating process group in the PMBOK (2013). During this very first phase of a project's life-cycle the initial scope must be defined and the stakeholders identified. It is critical that the stakeholder's expectations are aligned with the project scope in order to obtain the authorization to start the project.
- ***Project scope management*** – the PMBOK (2013) dedicates an entire chapter to this process group covering activities such as collecting stakeholder requirements, defining project scope and creating the WBS, as summarized in section 2.3 of this chapter.
- ***Requirements management*** – this process involves identifying, documenting and controlling stakeholder requirements, needs and interests to meet the project deliverables. This stage in the project is essential due to the fact that the documented needs, requirements and interest will determine the scope of the project PMBOK (2013).

- ***Strategic framework*** – the APM BoK incorporates a broader, generic framework for strategic project management, which covers elements from different project areas such as technical, control, organizational and people. Such a framework can be advanced using standard project management skills and knowledge (Jamieson & Morris, 2004).

The output of the processes listed above become the input to the second stage of the model developed by Jamieson & Morris (2004), **creating the project strategy**, which in turn comprises of several groups of activities:

- ***Project management planning and integration processes*** – these processes are developed in line with the framework proposed by the PMBOK (2013) in chapters 2 and 3, building on the outcome of the project definition, requirements and scope from the translating business strategy stage.
- ***Project plans development process*** – the project plan is developed at this point, containing elements collected from all the other processes listed above.
- ***Generic project management knowledge and competencies***
- ***Elements of project strategy***

The project strategy as envisioned by Jamieson & Morris (2004) corresponds to the project management plan as described by the PMBOK, meaning that a project's strategy contains information on all aspects of project management that are analyzed and documented during the project planning phase: risk, resources, scheduling, budgeting, quality, and procurement. Jamieson & Morris (2004) summarized their model based on the two stages of alignment between projects and strategy in the picture below.

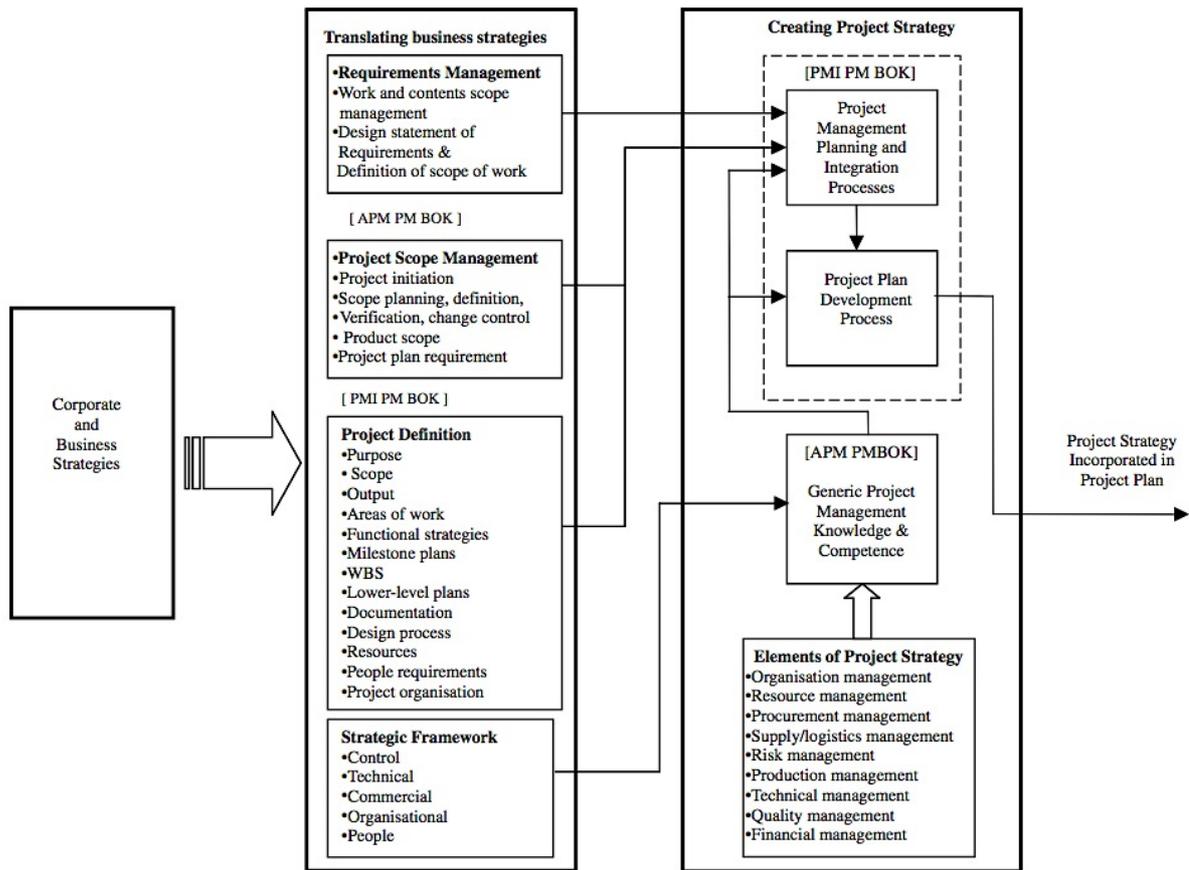


Figure 3.4. PMBOK and APM BoK on strategy and project alignment

Source: (Jamieson & Morris, 2004)

Reviewing the analysis of the PMBOK and APM BoK performed by Jamieson & Morris (2004) it can be concluded that there are three key processes that form the basis for successfully aligning the project's scope and the business strategy: *project definition, stakeholder requirements management, and scope management*. Effectively developing the three processes will deliver sound, valid input to the remaining of the planning phase and will secure a solid foundation for the project strategy (Jamieson & Morris, 2004) or project management plan (PMBOK 2013). It can therefore be stated that it is critical that the project manager and his/her team will focus on translating the business strategy into the project's scope and strategy during the development of the three processes.

3.5.1. Project definition

The purpose of this initial process is to obtain the authorization from the project sponsor to start the project. For a project to be approved it must be confirmed that:

- the project will contribute to achieving the strategic goals of the organization,
- the project will bring benefits to the organization - such as financial, but not exclusively,
- the project is supported by its stakeholders, and
- that there are sufficient resources available to run the project (Antvik & Sjöholm, 2012).

As stated earlier in this paper, the use of projects within organizations is increasing and they can create significant levels of revenues, but simultaneously there is a valid risk that not all projects initiated are, in fact, relevant to the company. Briner et al. (2009) strongly express their concern with this issue in a straightforward manner “...we find a major problem to the plethora of projects which are the whim of some individual or department and which cannot in truth be seen as priorities related to the strategy or vision of the organization.”.

Briner et al. (2009) recommend that the project be started by considering, first of all, the *impact* that the project will have on the organization, without considering at this stage any concrete outputs or deliverables, as these could distract from maintaining the focus on the big picture. By reflecting on the impact that the project will have, without focusing on the low-level deliverables or outputs, the first two authorization criteria will be checked – the contribution to the overall strategy of the organization and the benefits that the project would bring to the company.

Depending on the type and size of the project, as well as on the organization’s policies and routines, the project authorization may ensue from a feasibility study, business case, or proposal/tender. Regardless of the tool or documentation employed, a written analysis should be presented to the decision makers concerning *what the project is aiming to accomplish*, *the impact it is expected to have on the organization and its strategy*, and *the benefits estimated to result from the project compared against the resources projected to be invested*.

3.5.2. Requirements management

Although the business justification of the project has been determined, there might still be different visions within the organization regarding what the project should deliver. Such divergent views need to be identified, negotiated, prioritized and managed in order to obtain a uniform and consistent view on what is the scope of the project.

The first step is to identify which are the people or groups of people who have an interest in the project, or who either are affected, or can affect the project. This is usually performed through brainstorming by engaging the project team and, possibly, the steering committee. Once the stakeholder mapping is finalized, a dialogue will be started with the most relevant interested parties of the project with the goal of obtaining an understanding of what are their expectations or requirements from the project.

The stakeholders might not always be very clear about what they want, for various reasons; therefore the project team should make use of different tools and methods available to obtain the needed information. The PMBOK (2013) suggests using interviews, focus groups, facilitated workshops, questionnaires and surveys or benchmarking. It is up to the project managers and their teams to decide upon the most effective ways of *obtaining and documenting* the relevant level of information regarding stakeholders' expectations.

The PMBOK (2013) differentiates between different categories in which requirements can be classified. Some common categories can include:

- *Business requirements* – these comprise of the high-level business needs that are met by the project's outcome or deliverables. They could also include the business issues solved by the project or the business opportunities the project is leveraging on. It can be presumed that specific stakeholders such as the project sponsor, line managers or even top managers, express the business requirements.
- *Stakeholder requirements* – they describe the needs or expectations of specific interested parties or groups of interested parties, such as the customer or users.

- *Solution requirements* – these cover the expected (functional or nonfunctional) features or functions of the product, services or result, which is to stem from the project. The required features or functions must meet the needs of either the *business*, or the *stakeholders* as identified above.
- *Quality requirements* – contain the criteria or conditions needed to authorize the successful completion of a deliverable.

After the different categories of requirements are collected and documented in a table or matrix, the project team should proceed managing the different stakeholders, their needs and expectations. It is not realistic that the project could meet every single of the identified requirements, as there must be consistency between what the stakeholders need or expect, and what the project must and can deliver.

Furthermore, the project team must ensure that they will maintain the support of all the interested parties of the project through anchoring – providing continuous updates and holding mutually beneficial meetings - since that is a critical element that will contribute to the success of the project (Antvik & Sjöhom, 2012).

The collected requirements must be documented and managed throughout the duration of the project. Moreover, the stakeholders might change their perspectives on the requirements and might have new needs or expectations as the project progresses. The project manager must ensure that the new requirements are taken into account, and if relevant are integrated in the project scope.

3.5.3. Scope management

Managing the scope of the project has three main targets: ensuring that the relevant work is accomplished, that unnecessary work is not done (setting and maintaining boundaries) and that the work performed delivers the expected results (Turner, 2009).

The preliminary scope of the project is defined during the initiation or pre-study project phase, but it will be expanded and signed off during the planning phase, once the stakeholder requirements have been collected and analyzed, and when more information about the project is known.

Project scope definition entails a detailed description of what the project will deliver, the work that needs to be done, and as importantly what the project will not

deliver. The description is based on the outcome of the project definition (impact and benefits) and on the collected requirements, after they have been analyzed and the most relevant ones have been selected. At this point, the project manager must control and ensure that the impact and the benefits the project will bring to the organization are at the foundation of the scope definition. Moreover, the project manager must make sure that the identified business requirements will be included in the scope of the project.

The PMBOK (2013) recommends that the output of the scope definition process will be a *project scope statement*, which should include the following elements:

- ***Product scope description*** – contains the description of the expected outcome of the project, be it a product, service or result. The documented requirements should be included as well.
- ***Acceptance criteria*** – they will support decision-makers when validating the deliverables. They should state the conditions under which the deliverables will be accepted, and approved as completed.
- ***Deliverables*** – these are “*any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project.*” (PMBOK, 2013). The deliverables are areas of work, which deliver one of the project’s objectives or a part of the project scope. The sum of the deliverables must add up to the total of the project scope.
- ***Project exclusion*** – explicitly states what falls outside the scope of the project.
- ***Constraints*** – lists all factors (internal or external), which limit the execution of the project, such as available budget or imposed dates.
- ***Assumptions*** – lists all factors that are considered during the planning phase to be true without proof.

The work to be performed, established in the project scope statement, should be divided and subdivided for efficient control and management. Through Work Breakdown Structure (WBS) the project work and deliverables are broken up into components of more manageable size. The WBS is a hierarchical structure usually made up of three to five levels. The top level is usually constituted of the project

deliverables, while the lower levels contain the planned work, which is grouped into work packages.

Using a WBS in scope management provides the project managers with several advantages. Firstly, it ensures better control because by focusing on the deliverables, only needed work will be performed. Secondly, by breaking down deliverables into work packages, each package will become easier to delegate and manage by the person responsible. Next, having the flexibility to focus on either a high or low level of detail, the WBS allows for more efficient tracking and management of the progress achieved. By tracking only the higher levels of the WBS, the project manager will not end up spending more time on controlling the project than actually performing work to move it forward (Turner, 2009).

Trough the WBS the total scope of the project will be divided and organized into smaller components of work to be performed. This ensures that the activities which will be carried out in the project are in line with the project's scope and the impact it will have on the organization. Moreover, the WBS provides a simple overview of how the deliverables or each work package builds towards the scope of the project.

3.6. Roles and responsibility for alignment between project scope and business strategy

It can be claimed that it is relevant for the scope of this paper to study how responsibility is established for ensuring that there is an alignment between the projects scope and the business strategy. The literature that has been reviewed throughout the course of this research does not provide sufficient understanding on which roles are responsible for making sure that the project contributes to the business strategy.

It can be assumed that it is the project manager's responsibility to ensure that there is an alignment between project scope and business strategy. Moreover, this job could also be assigned to the project owner or sponsor who initiate the project. A question can be raised concerning the accountability of top management, the CEO in particular, in communicating the strategy and breaking down its implementation at all levels of the organization.

This particular area of research can be explored in a future study, as it can provide valuable information and fill in a gap in the current literature covering the topic of project management and business strategy.

4. Case study description

This section provides a description of the project that makes up the object of this case study, and how it developed through the initial phases of its life-cycle. The case study description is structured following the theoretical framework proposed in the previous section - *project definition*, *requirements management*, and *scope management*, and based on the data collection methods presented in section 2, Research method. However, before portraying the detailed characteristics of the project's planning process, the section will open with background information about the company, in order to place the project in the broader organizational context.

4.1. Company background

AB Electrolux is a multinational company that manufactures household appliances and appliances for professional use. The company was founded in 1919 and is today selling more than 50 million products in 150 countries. In 2013, the Electrolux Group had sales of SEK 109 billion and 61,000 employees.

Since the 1960s the company has regularly expanded through mergers and acquisitions, first by acquiring other Nordic manufacturers and later reaching European and North American enterprises. The latest acquisitions were completed in 2011. Over the years, this strategy has led to a very diverse product portfolio, as well as disparate operations and processes across different Electrolux entities.

Starting in the late 1990s Electrolux began consolidating its core business through a two years restructuring program with the purpose of improving profitability, which resulted in personnel cutbacks of about 11,000 and the shutdown of 23 plants and 50 warehouses. Simultaneously the company focused on streamlining its operations through divestment of products that were not part of its core business of household and professional appliances. The streamlining efforts continue until the present day. Currently the company is aiming at improving its efficiency across all product lines and regions through restructuring of production, leveraging on its global

scale, reducing tied-up capital and improving efficiency within sales and administration (Electrolux, 2014).

Electrolux vision and strategy

“The **vision** of Electrolux is to be the best appliance company in the world as measured by customers, employees, and shareholders.” (Electrolux Annual Report, 2013).

Electrolux’s **strategy** is based on four pillars - *profitable growth, innovation, operational excellence, and people and leadership*. The focus is on strengthening its position in core markets and increasing the share of sales in growing markets. This will be achieved through an increased speed of innovative products to the market and growth in new segments, channels and product categories. Electrolux is leveraging its global strength and scope to increase efficiency and lowering the cost base by global operations, optimization of manufacturing and reducing complexity (Electrolux Annual Report, 2013).

Every year Electrolux runs numerous projects all across the globe, the great part of which comprises of product development projects. These are developed following Electrolux’s enterprise product development process – PRO2, which provides a sound framework for cross-functional cooperation in order to improve efficiency and reduce products’ time to market.

Unfortunately, a similar framework is not set up for the rest of the projects run within the organization. Support functions such as finance, human resources or legal affairs are working on projects without having a common, comprehensive framework for how to deliver them most efficiently and with the highest strategic impact. Moreover, the support functions usually lack the necessary project management expertise, as their staff must attest skills and proficiency in their respective functional area.

4.2. Project background

The project selected for investigation in the course of this research paper was initiated by one of Electrolux’s support functions – Intellectual Property (IP). Group Intellectual Property is a function within Group Legal Affairs and is responsible for all intellectual property matters within the Electrolux Group globally. That includes management of patents, trademarks and design protection rights, but also contractual

agreements and legal conflicts regarding such rights (Hanns Hallesius, Electrolux Head of Group Patents).

The project, titled *Data extraction, Viewing & Reporting*, was initiated by Group Patents - part of Group Intellectual Property - as part of a series of internal projects, scheduled to be implemented throughout 2014. It has the scope of improving a number of internal processes that run in connection to the IP management software used by the department - Ipendo Platform. Improving these processes is an important part of the strategy defined by the leadership team of Group Patents in June 2013.

The team’s vision is “*Electrolux should have the best patent support for its business strategy within the home appliance industry*”. The vision will be implemented by focusing on six areas of performance:

<p><u>Strategy and business alignment</u></p> <ul style="list-style-type: none"> • Have a patent strategy 	<p><u>Portfolio management</u></p> <ul style="list-style-type: none"> • Have a strong patent portfolio • Have a good pipeline of inventions • Use the patent portfolio to support business 	<p><u>Risk management</u></p> <ul style="list-style-type: none"> • Always free to operate
<p><u>People, Organization & Culture</u></p> <ul style="list-style-type: none"> • IP Awareness in organization • Skilled IP professionals • Clarity of organization and responsibilities 	<p><u>Processes, Tools & Suppliers</u></p> <ul style="list-style-type: none"> • Efficient IP processes • Short delivery times • Right quality IP deliveries • Qualified network of IP service providers 	<p><u>Financial management</u></p> <ul style="list-style-type: none"> • Cost efficient patent management • Outstanding cost control

Figure 4.1. Electrolux Group Patents strategy

Source: Internal document, Electrolux Group Patents

The project *Data extraction, Viewing & Reporting* was initiated with the goal of improving the existing tools for searching and extracting data related to intellectual property rights. A significant proportion of the strategic input that Group Intellectual Property provides to the core functions (such as R&D and Marketing) is based on collecting, managing and analyzing data related to patent, industrial design and trademark rights. Electrolux’s extensive IP portfolio is stored and managed through an IP management software. The software currently provides solutions for searching and extracting relevant data, which can be used by IP staff in strategic decision-making, but these can be further improved through customization.

Starting out from the premise that on a regular basis different stakeholders need certain type of IP information, the project *Data extraction, Viewing & Reporting* aims at setting up a number of pre-defined reporting templates that can facilitate the process of searching, extracting and visualizing data. These templates would be defined based on an analysis of the needs expressed by different stakeholders or categories of stakeholders with regards to, for instance, the information they require, how often and in what format it should be made available to them.

The project is lead by a project manager located in Nürnberg, Germany, who is supported by a project coordinator located in Stockholm, Sweden. Additionally, the project team is comprised of three more members, two located in Stockholm and one in Porcia, Italy. Moreover, the project benefits from the support of a reference group, which has an advisory role by testing and evaluating solutions proposed by the project team, as well as contributing with ideas and viewpoints if requested.

4.3. Project description

The case study is based on data collected through interviews, observations and participation in meetings. In order to facilitate the description, as well as the understanding, of the case study the data was clustered in themes, which coincide with the theoretical alignment framework, namely project definition, requirements management and scope management.

4.3.1. Project definition

The project *Data extraction, Viewing & Reporting* started in January 2014 and is a part of a larger group of projects (program) initiated with the scope of driving change and improving a number of internal processes that operate in parallel with the IP management software. The program or group of projects is expected to run throughout 2014, and *Data extraction, Viewing & Reporting* is one of two projects prioritized to kick off the program.

One of the **benefits** expected to ensue from the project is related to the bigger picture of the change initiative. The project owner expressed the view that the project can provide tangible positive change early on in the program in order to keep the momentum and motivate the team to continue working and delivering on the rest of the projects – “... [the project] is showing that there is progress and that we are moving forward and there is hope.” (Hanns Hallesius, Head of Group Patents)

Another expected **benefit** identified by the project owner in relation to the program, is that the project should generate information regarding relevant data that must be extracted from the system. In case needed data is not presently in the system or if it should be entered in the system differently, then this information would be valuable input for other projects which are to run at a later stage.

With regards to the **expected outcome** of the project and the benefits that stem from it, there is a clear alignment in how the project owner expressed it and how the assigned project manager comprehended it.

“... this project is about what you can get out of the system. We have never really been good at that ... We are not using the engine for what is actually worth and what it can do, the engine being the IT system.

We have a lot of data, but we are not using it and we don't see it easy enough, so we want to actually make sure that the transparency increases so that we can make use of the data. We also wanted it to be quick and easy, so standard templates, to have an easy access to it.” (Hanns Hallesius, Head of Group Patents)

“We have to create pre-defined templates for data extraction because the system, and the possibility for data extraction weren't really reviewed between implementation of the system (late 2010) and now. And we also didn't have the time to think about our needs and to get in touch with the stakeholders before implementation.” (Sigrid Staub-Lemmer, Project Manager)

The implicit, main **benefit** that stems from the project lies in the value that the IP related information (stored and managed through the IP management software) could bring to the company. Large amounts of data can provide a lot of high-value information, which can play a critical role in strategic and financial decision-making, but if the data cannot be retrieved from the system in a manner that supports analysis and evaluation, then the data is unusable. The project aims at supporting decision making at all levels of the organization with efficient data extraction capabilities. This benefit has never been articulated in either of the interviews or any project meeting, due to the fact that this is understood and accepted by everyone, and therefore no one finds it necessary to motivate it.

The **impact**, which the steering committee and the project team foresee that the project will have, is that Electrolux will increase its competitive advantage on the market by making informed decisions in relation to IP rights, products, markets etc.

“The opportunity to actually use the data and put it in the hands of management in a meaningful way, that supports their decision-making processes, their business processes, that is one of the most important things.” (Hanns Hallesius, Head of Group Patents)

4.3.2. Requirements management

The project’s *stakeholder analysis* represents one of the key deliverables on which the rest of the project is built. In order to set up the reporting templates (the project’s output), the project team must have an in-depth understating of the data searching and reporting requirements expressed by various stakeholders (internal or external to Group Intellectual Property). This demands a comprehensive stakeholder analysis, which is to be executed as a first deliverable in the project execution phase. Appendix 2 illustrates the project deliverables, where the first deliverable is: *“Document summarizing the analysis of stakeholders’ needs in different situations -This deliverable will contain the information on the collected needs for searching and viewing data, expressed by different stakeholders, depending on the context in which data is needed.”*

Bearing in mind the above, the team agreed that the analysis performed during the planning phase could be done on a rather superficial level (not very detailed) by identifying the key/primary stakeholders and their expectations from the project.

The project manager created an initial list of stakeholders and their possible interests in the project and shared that document with the project team. She asked the team to review the proposed list and prepare input before the meeting where the stakeholder analysis would be performed. During the meeting, the project team’s input was discussed and, by merging some stakeholder categories, shortened the proposed stakeholder list. It was clear during the meeting that the project team was aiming at limiting the scope of the project by reducing the number of stakeholders whose requirements and expectations would be considered.

In a subsequent meeting one of the project team members brought up the fact that after having a dialog with the project owner it was made clear to him that he did

not have an accurate understanding of what the project is expected to deliver, which in turn affected his understanding of who the stakeholders are and what their interests in the project could be. He therefore proposed that the stakeholder analysis be reviewed and adjusted accordingly during the project planning. At the point of investigation, this has not been followed up on. A version of the current stakeholder analysis is included in this document as Appendix 3.

4.3.3. Scope Management

The scope of the project is briefly stated in the background section of the project plan: *“The purpose of the project is to support frequent search and reporting needs by use of standard reports accessible through both Ipendo Platform and Report Builder.”* Beyond this short phrase the scope was not elaborated at a later stage in the project plan, and neither were the boundaries of the scope.

Early on in the initiation phase of the project, the steering committee became aware that the project team is approaching the project with the traditional view – the project is a group of activities to be performed and delivered as efficiently as possible. In an attempt to encourage the team to consider the scope of the project and the impact it should have on the organization, the steering committee defined a list of benefits or effects that the project is expected to have and referred to them as *“business targets”* (Appendix 1).

The business targets are *“... the answer to the question ‘why are we driving this project?’, ‘what is it we are trying to achieve?’, ‘what is the rationale behind actually making a project to get to a new stage where we are performing better?’.* (Hanns Hallesius, Head of Group Patents)

The business targets were established with the purpose of ensuring that the project will generate the expected benefits for the users, IP functional area and the organization as a whole. Moreover, the business targets represent the foundation on which the project deliverables are defined.

“As we did not have a clear common picture of the ‘why’ and the effects that we were seeking, then we couldn’t really refer to that in setting what is it that we want to have delivered.” (Hanns Hallesius, Head of Group Patents)

The project manager was of the opinion that the business targets had a significant contribution to defining the project deliverables by helping her and her

team limit the scope of the project and focus on the right things that should be delivered.

“Because in the beginning, for me at least, it was like reinventing the wheel; because you didn’t know what to focus on, you just had to think about every situation which might come up... we didn’t even think in the direction as the one given by the business targets.” (Sigrid Staub-Lemmer).

The process of establishing the deliverables spanned over a three months period (between early February and early May 2014), including several meetings and many versions of the document being reviewed and improved numerous times. The project manager believes that there were several factors that contributed to the prolonged process of establishing project deliverables:

- before the steering committee provided the business targets the team had a difficult time finding the right direction for the project to head in.
- the project team did not have sufficient project management knowledge and expertise, which generated confusion about the terminology used and what the different tools are used for *“The main problem was that we didn’t have sufficient knowledge in project management. It was hard to understand what a deliverable is, and the difference between business targets and deliverables and how they interact ...”* (Sigrid Staub-Lemmer).
- the format and layout of the project plan changed several times during the planning phase which generated difficulties in how to define and display the deliverables.

The project owner believes that the main reason why the team had a difficult time scoping the project and breaking it down into deliverables is that the department does not have enough experience and expertise in project management. For the most part, the staff is composed of patent and trademark attorneys and assistants, as well as lawyers, and therefore, their expertise is in engineering, legal matters or IP administration, but not in project management.

“This is may be related to an organization that is less used to driving projects, partly because steering committee is not very versed in that either, but we could see that it wasn’t good enough.” (Hanns Hallesius, Head of Group Patents)

When the team reached an agreement on the list of deliverables and their description, they sent the document to the steering committee for approval. At the point of the investigation, the project team awaited the acceptance of deliverables in order to proceed with breaking them down into a product breakdown structure and work breakdown structure.

5. Analysis and discussion

This section will encompass one of the most important research goals formulated in the introduction of this document, namely to *verify the validity of the proposed theoretical framework, as well as to identify its benefits and possible shortcomings*. This is achieved by comparing and analyzing the theoretical framework proposed for project scope and business strategy alignment, with the real-life project described in the previous section.

5.1. Project definition

The project definition process – which can coincide with, or be part of the initiation phase of the project life-cycle – must ensure that the project owner and/or the steering committee will approve the project to start.

The literature review revealed that at this initial stage it must be established that the **project creates benefits greater than the costs** of running it, and that it contributes to achieving the strategic goals of the organization (Antvik & Sjöholm, 2012). Briner et al. (2009) indicate that the **impact** the project can have on the organization in a best-case scenario should be the main focus at this stage, because this will account for both benefits and strategic contribution.

The importance of considering the wider context in which the project is being developed, and how the project fits into it, is supported by the case study. The project *Data extraction, Viewing & Reporting* was initially not approved by the steering committee to start, because they realized that the impact and expected outcome of the project was not considered before diving into estimating activities and resources needed for the implementation. *“As we did not have a clear common picture of the ‘why’ and the effects that we were seeking, then we couldn’t really refer to that in setting what is it that we want to have delivered.”* (Hanns Hallesius, Head of Group Patents).

The organization must have a **solid motivation for why a project should be run** due to the fact that resources are committed to it, and that the investment must yield comparable benefits. For the project *Data extraction, Viewing & Reporting* it was the steering committee that considered the impact the project will have on different stakeholders (e.g. users, managers), as well as on the department and on the organization as a whole. They formulated the *business targets* - the expected benefits to emerge from the project - to ensure that the project will contribute to any of the four pillars of Electrolux's strategy.

Another advantage of considering the impact of the project and its contribution to the business strategy is that the project team will have an easier task when defining the project scope and deliverables. The scope of the project is tightly correlated to the anticipated impact, therefore by first considering the impact, the team will more easily stay within the scope of the project when deciding on the deliverables. Moreover, the team will not lose sight of the strategy and how the project will contribute to it when outlining the deliverables.

As the project manager interviewed for the case study indicated, until the effects (that the project is expected to have) were discussed with the steering committee, the project lacked a clear direction and had challenges in identifying what it is that needs to be done.

"... because you didn't know what to focus on, you just had to think about every situation which might come up... we didn't even think in the direction as the one given by the business targets." (Sigrid Staub-Lemmer).

Both the project owner and the project manager indicated in their interviews that they recognized a need in taking into account the benefits that the project will bring to the stakeholders and to the organization. Additionally, they recognized the advantages that this process could bring to the success of the project, therefore supporting the arguments brought forth by the literature review and the theoretical framework.

The predicted impact of the project is a valuable input for the next process in the proposed alignment framework – requirements management. As the case study revealed, if team members do not have a clear understanding of the expected outcome of the project, then it is hard for them to identify who are the relevant stakeholders.

That, in turn, would have a negative impact on scope definition, thus jeopardizing the success of the project.

5.2. Requirements management

Requirements management, or stakeholder analysis, can have a significant influence on the alignment between the project's scope and business strategy.

If all relevant stakeholders - some of which would most likely be in senior management positions - are considered, and the different types of requirements (business, stakeholder, solution, quality) are analyzed, then it is unlikely that the link between the project's scope and the organization's strategy will be missed. Nevertheless, the project team must be aware of the strategic requirements that would arise during the stakeholder analysis and prioritize them to be included in the next process – defining the project scope.

The benefits of identifying and managing stakeholder requirements are twofold. On one hand, they **ensure the success of the project by leveraging on the stakeholders' requirements, as well as their influence**. On the other hand, the stakeholders' needs and expectations **shape and limit the scope of the project**. Hence, without a thorough stakeholder analysis there is a risk that the project scope might be unclear or even misguided. It would also lead to possible scope creep if the identified requirements were not prioritized.

The project *Data extraction, Viewing & Reporting* did not perform an in-depth stakeholder analysis during the planning phase because that is the first deliverable to be produced. The project team aimed at speeding up the planning and instead take time during the execution phase to make a thorough investigation of stakeholders' expectations and needs regarding IP data to be extracted from the IP management software. Although the stakeholder analysis was not performed in detail before defining the scope and, subsequently the deliverables, the project team relied on the business targets in guiding them through the planning process.

Due to the business targets, the project *Data extraction, Viewing & Reporting* did not risk overlooking the **business requirements** – part of requirements management, together with stakeholder, quality and solution requirements. The business requirements are, arguably, the strongest foundation on which the link between the project scope and business strategy is built.

Based on observations made during data collection, it can be claimed that the team would have reached consensus over the project deliverables sooner and with less trouble if they had had a better understanding of the stakeholders' needs and expectations. By not having a solid stakeholder analysis to rely on, the scope of the project was not clearly defined, which in turn generated challenges in agreeing on the deliverables. Moreover, the deliverables could have been formulated more clearly if they were rooted in concrete stakeholder requirements.

Furthermore, it can be argued that the project team could have seen a stronger connection between their project and how it contributes to the strategic goals, if they would have had the chance to talk to their stakeholders and see how the project output can influence their performance.

5.3. Scope management

The output of the project definition process (impact and benefits) and requirements process (stakeholder analysis) will represent the foundation for project scope management process. The third, and last process in the project scope and business strategy alignment framework must establish the relevant work that needs to be completed, as well as the work that should not be performed (limitations), and it must ensure that the executed activities will deliver the expected results.

The PMBOK (2013) recommends that the outcome of the scope management process should be a *project scope statement* – a document containing a list of items such as product scope description (the project's outcome), acceptance criteria, deliverables, project exclusion, constraints, and assumptions.

The purpose of the project scope statement is to clearly describe what it is to be achieved through the project and, in broad terms, how it will be accomplished. Moreover, the document should support the project team in establishing what are the limitations of the project by stating what is excluded from its scope and what are the constraints that the team faces in delivering the results. Finally, by agreeing on acceptance criteria, the project can be objectively evaluated at the end and decided if all the results were delivered satisfactory, before concluding the project. The project team together with the client, project owner and/or steering committee should define the acceptance criteria.

The project *Data extraction, Viewing & Reporting* focused exclusively on defining the deliverables and overlooked the other elements of scope management as recommended by the PMBOK. This decision is bound to impose some risks to the overall success of the project, which will be listed below.

Firstly, the project scope should be defined and clearly described before the deliverables are set, as **the scope represents the sum of the deliverables**. Without having a clear picture of what the scope includes, and what it excludes, the project team is likely to face difficulties in establishing the deliverables.

This was in fact the case with the *Data extraction, Viewing & Reporting* project. The team ended up spending a large amount of time and long meetings trying to agree on what each deliverable should include due to the fact that not everyone in the team had the same understanding of the project scope. Thus, when the deliverables should have been set, a significant part of the discussions were actually revolving around agreeing what the project should and should not deliver.

Moreover, as recommended above, the project scope should include the relevant business requirements and stakeholders' needs in order not to lose sight of the impact that the project is expected to have on the organization. If that is not done before setting the deliverables, then the team risks losing sight of the strategic contribution of the project.

Secondly, if the project scope is not delimited by stating what products, output or activities fall outside the scope of the project, then there is an actual **risk of scope creep** – uncontrolled changes to the project scope which usually result in additional outputs to be delivered or activities to be performed. Scope creep can have significant consequences on the final product, going as far as changing the product entirely.

Finally, the project needs acceptance criteria that can be evaluated once all activities are completed to officially close the project. Without such criteria, the **project risks to drag on for longer time than needed**, particularly if scope creep

Based on the case study research we can conclude that the project ‘Data extraction, Viewing & Reporting’ relied almost entirely on the defined business targets in outlining the project scope, requirements, as well as the expected outcome. The business targets provided considerable support to the project manager and her team in maintaining a **strategic perspective during the initiation and planning phase** of the project. However, the project could have benefited from a more **clear and delimited project scope definition**, as well as from a more **detailed stakeholder analysis**. These could have facilitated the planning process for the project team by providing more clarity on what it is that needs to be performed, what shouldn’t be performed, and what is it that the stakeholders expect from the project. Increased clarity and transparency over the scope and requirements would have ensured a **smoother and better structured planning process** for the project team.

would occur. For the case study project, the business targets can be used for this purpose, although they are not easy to be objectively evaluated.

6. Conclusions

This section will revisit the research question put forward at the beginning of the paper and review the research goals, with the aim of establishing whether the research question has been answered, and if the goals were adequately met. Firstly, by assessing each of the three research goals, the main findings of the research paper are summarized and conclusions are offered based on the findings. Furthermore, the limitations that the research met are mentioned and recommendations for future research are provided.

The overall aim of the research was to explore how can organizations, which do not have a comprehensive project management structure in place, ensure that projects they initiate contribute to advancing the business strategy. In particular, the research set out to propose a framework for aligning project scope and deliverables with the

business strategy. The research question was broken down into more specific goals to be achieved throughout the paper:

- i. Review current literature and explore frameworks, methods and/or tools available for aligning project scope with business strategy.
- ii. Outline a framework, based on the literature review findings, for aligning project scope and deliverables with business strategy.
- iii. Present and assess a case study on aligning the scope of an Intellectual Property process improvement project with the company's business strategy, in order to verify the validity of the proposed framework, as well as identify its benefits and possible shortcomings.

6.1. Summary of findings and conclusions

6.1.1. Research goal 1: Projects and business strategy in existing literature

The first research goal listed above was to explore the existing literature on the topic of alignment between project scope and business strategy and identify what researchers and project management experts recommend. This goal was covered during the first part of the literature review section of this paper.

Most authors advise that in order to make sure that projects are in line with the strategic direction in which the organization is heading, they should be managed in a centralized manner through portfolios or programs. This way projects are coordinated and supervised through project management offices or by program directors that have an overview of all projects in the organization and how each of them can add value to the strategy.

Other authors approach the alignment between projects and business strategy from a different angle, namely implementation of the strategy through projects. This comes as a response to the failure of many organizations to successfully implement the strategies in which they invested a lot of effort to define.

What was not clearly identified in the literature review is a straightforward alignment methodology or framework that can be employed by organizations that do not have sophisticated project management structures in place.

Although almost every organization in the world relies on projects to develop new products, improve operations or drive change, not all of them see project management as a strategic tool. Thus, projects are sometimes initiated without a clear perspective of how they will add value to the company and how they will advance the strategy. For organizations that do not have project management offices and/or do not earn value by congregating all their projects under a single portfolio, a framework that can be employed simply and without increased resource use, could increase the benefits that projects bring to the strategic goals.

6.1.2. Research goal 2: Framework for alignment between project scope and business strategy

The second research goal set out to identify or formulate such a framework that would facilitate the alignment between project scope and business strategy in organizations that do not rely on comprehensive project management tools or structures.

The second part of the literature review looked at the assessment of the PMBOK and APM BoK made by Jamieson & Morris (2004). These authors researched what the two project management guides recommend in terms of alignment between the project's scope and the organization's strategy, and provided a compiled overview of their findings. They proceed to propose a rather complex structure for translating business strategy into project strategy (Figure 3.4.).

Building on the framework proposed by Jamieson & Morris (2004) for translating business strategy into project strategy, **the paper recommended that in order to align a project scope's and deliverables with the business strategy, the project team must focus on three project management processes: project definition, requirements management and scope management.** These processes proceeded to be described in detail in section 3.5 of the Literature review.

The motivation for advancing a new framework for project and strategy alignment is that a need was identified at the beginning of the research to support organizations with a simple tool for ensuring that projects are initiated with the scope of contributing to the business strategy. Such a framework or tool should be readily applicable to any type of organization, regardless of size or industry and more importantly, regardless of the level of knowledge and experience in project management.

The proposed theoretical framework took many of its elements from the PMBOK, but also different authors that supported the arguments made in favor of the processes selected to make up the framework.

6.1.3. Research goal 3: Case study analysis

The third research goal was to compare the proposed theoretical framework against a real life project currently run by Group Intellectual Property within AB Electrolux. The purpose of the comparison was to check if the proposed framework is valid and if it could increase the success of the project.

The comparison and analysis revealed that the *project definition process* is compellingly relevant for aligning the scope of a project with the business strategy. It is during that initial step in the project life-cycle that the impact the project will have on the organization is envisioned and will further be developed into the project scope.

Moreover, the analysis concluded that collecting and prioritizing different categories of stakeholder requirements facilitates the process of defining the project scope and deliverables. Without a clear picture of what the project is required to deliver to its stakeholders and to the organization as a whole, the process of establishing the scope and breaking it down into deliverables becomes tedious because discussions will be prolonged in an attempt to establish what is it that the project should offer.

Furthermore, if a project scope statement is created as part of the scope management process, then the risk of scope creep and schedule overruns is reduced, while increasing the transparency over the link between the project scope and the organization's strategy.

Overall, based on the qualitative analysis conducted on the project *Data extraction, Viewing & Reporting*, it can be concluded that the proposed theoretical framework would have contributed to **increasing the efficiency and success of the planning process** of the project. Moreover, the proposed framework would have supported the project team with a **clearer picture of how their project brings a contribution to advancing Electrolux's strategy**, namely that the project will support Electrolux in increasing its competitiveness on the market by supporting different levels of the organization in making informed decisions regarding IP rights, products, markets, etc.

6.2. Limitations

The main constraint this research faced is the limited time available to test the validity of the proposed theoretical framework. In order to support the theoretical proposition of the research with strong empirical evidence the alignment framework would have benefited from applying it to a real-life project from its initiation until the end of the planning phase (formal approval of the project). This would have required a timeframe (4-6 months), which was not available to this research.

Since the opportunity to apply the theoretical framework to a project was not available, the research resolved to generate a comparison and analysis between the processes of the theoretical framework and how a real-life project was initiated and planned. It can be argued that the findings and conclusions of the comparison are not comprehensive enough, as not all benefits and drawback of the proposed framework could have been identified through this approach. However, the case study analysis did provide insight into the benefits of the theoretical framework and it verified that the framework could be applied to projects without increased effort and resources.

Additional limitations, with regards to the research method, have been covered by section 2.4. of this paper.

6.3. Recommendations for future research

This research explored how to ensure that projects contribute to advancing the business strategy during the first two phases of the project life-cycle: initiation and planning. However, this can be further studied by *investigating how the alignment between project scope and business strategy is maintained throughout the entire project life-cycle.*

Furthermore, as previously stated this paper did not examine the *roles and responsibilities for aligning the project scope with the business strategy* and this is an area that could be of interest for many organizations and can therefore be explored in a further study.

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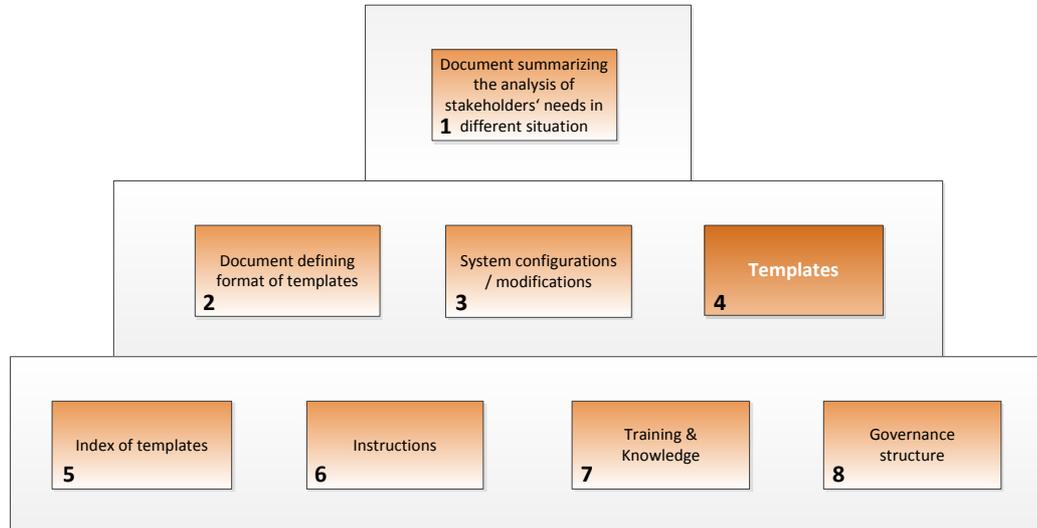
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Appendices

Appendix 1: Business targets

BUSINESS AREA	BUSINESS TARGETS
Understanding	We will have an understanding of what data / information we want to be able to retrieve from the system based on stakeholder and situation perspective.
Retrieval	All data in the system will be retrievable in all relevant combinations. Selected external users will be able to obtain selected data without accessing Ipendo Platform.
Usability	Anyone (IP users as well as non IP users) will be able to retrieve needed information with limited effort and limited knowledge about the system and/or about IP.
Data visualization	We will have a relevant portfolio of reports / views to identified IP and business needs, which reports / views are considered relevant and visualizing as measured by the stakeholder involved. IP professionals will have the flexibility to freely design report layouts with the selected content.
Data validity	We will have reports that: a) support all relevant data validity checks and cleansing efforts b) support critical data entry checks, manual or automated
Governance structure	We will have a governance structure for the report system a) Part of an overarching IP Management System governance structure b) Define how changes are managed <ul style="list-style-type: none"> - How to identify needs for changes? - How to prepare and who makes decisions (process & authorities)? - How to manage documentation, versions, instructions, and store? - Who performs changes?

Appendix 2: Project deliverables



1. Document summarizing the analysis of stakeholders' needs in different situations

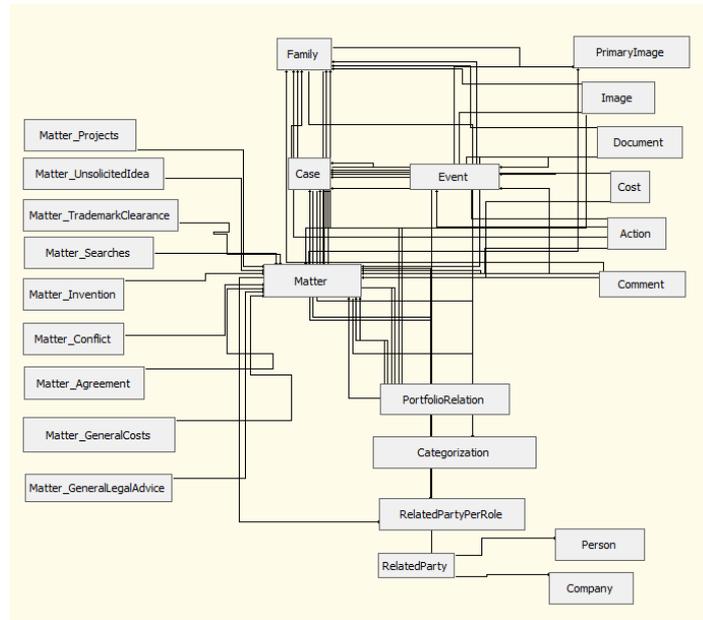
This deliverable will contain the information on the collected needs for searching and viewing data, expressed by different stakeholders, depending on the context in which data is needed.

Example

- If stakeholder No. 1 needs a report for an action list showing due date and Stakeholder No. 2 is in need of a report for an action list showing due date plus final due date, these needs have to be reviewed and aligned.

Items involved

- Description of situations in which stakeholders need to have a report, such as:
 - Budgeting
 - Portfolio review
 - ...
- Specification of data available in the system, e.g. picture below



- Object related database model of additional data needed in the system
 - Model will contain the data from the picture above and the data which might be added.
- List of relevant / crucial data which needs to be entered in the system correctly in order to meet stakeholders' needs, e.g. additional due dates, decision dates...
- Pre-defined methods for critical data entry checks (manual or automated) – in cooperation with “Filing, Prosecution and Registration” project.

2. Document defining format of templates

This deliverable will be a document which lists the content (data included in the report / list view, search criterias and format) of the different templates after review and alignment of the stakeholders' needs.

Internal cost template example:

Search criteria:

- Time period
- People
- Related party: SAP Network

Download options:

Date	Created by	SAP Network	Case Reference
2014-01-01	Sigrid Staub-Lemmer	SE.P0	P-1234556

Items involved

- Report summarizing the analysis of stakeholders' searching needs in different situations.

3. System configurations / modifications

This deliverable will be the actual system configurations and system modifications necessary in order to meet the stakeholders' needs.

Examples

If the analysis of the stakeholders' needs shows that:

- A crucial piece of data (e.g. Description of patent application) is missing in our database, because there is no proper place to store this information, then a new field needs to be activated by Ipendo IT (=configuration).
- Additional information needs to be added to the system (e.g. categorization), this will be a data modification at our end.

Items involved

- Report summarizing the analysis of stakeholders' needs in different situations.
- Description of system configuration / modification purpose.

4. Templates

This deliverable will consist of several templates which will be used for the data extraction, viewing and reporting both in the Ipendo Platform and the Report Builder. Please note, that the actual amount of templates cannot be determined at this point. This can be done once the project team has reviewed the stakeholders' feedback on actual needs.

Examples

- Template for actions
- Template for costs
- Template for upcoming renewals
- Template providing an overview about matters/cases/families/costs related to a specific project

Items involved

- Analysis of stakeholders' needs in different situations
- Format of templates
- System configurations / modifications

5. Index of templates

This deliverable will contain what is actually included in each template.

Example

- Index of templates containing e.g.
 - Template title
 - Content specification
 - Search criterias

- This would enable the user to:
 - Identify the data needed depending on situation
 - Choose the applicable template

Items involved

- Report summarizing the analysis of stakeholders' needs in different situations
- Identification and purpose of the templates.

6. Instructions

This deliverable will contain detailed instructions on how to use the templates (i.e. the steps to follow when searching for data, how to extract the list view or reports etc).

Example

- Detailed instructions on how to use the report templates, i.e. how to:
 - Search for data
 - Perform data extraction in list views
 - Create/run reports

Items involved

- Specification of how instructions will be presented best (e.g. written instructions, video trainings, other multimedia tools).

7. Training & Knowledge

This deliverable consists of multiple knowledge sharing sessions during which IP users will participate according to their system knowledge level.

Items involved

- Identification of stakeholder's different system knowledge levels.
- Identification of responsables for providing training and preparing training material.

8. Governance structure

This deliverable will contain information about the maintenance and the improvements of the existing templates over time. It will establish responsibilities and procedures for updating templates when needed or for creating new templates.

Items involved

- List of:
 - Responsibles for managing templates
 - Minimum required knowledge level for managing templates
- Description of the:
 - Procedure for modifications of existing templates
 - Procedure for creating new templates
 - Change management process

- Maintenance process
- Written instructions on how to administer the above (e.g. via online request form for requesting updates, new templates etc.)

Appendix 3: Stakeholder analysis

STAKEHOLDER(S)	GOALS, MOTIVATIONS, INTERESTS	INFLUENCE	INTEREST	ACTION/ROLE	WIN / WIN STRATEGIES
Steering Committee	Successful delivery according to pre-defined Business Targets	High	High	Governance	Sign off on key decisions.
Budget Responsible	Adequate cost extraction	High	High	Key player/ Influencer	Input and participation in understanding the needs and purposes of which data to be extracted/visualized
IP Assistants	Adequate extraction of e.g. actions, portfolio, maintenance data, cross-check of crucial data	High	High	Key player/ Influencer	Input and participation in understanding the needs and purposes of which data to be extracted/visualized
IP Attorneys	Facilitate for attorneys when supporting their clients and making budgets. Relevant reports should be easy to extract in short time. Cost extraction, IP Portfolio monitoring	High	High	Key player/ Influencer	Input and participation in understanding the needs and purposes of which data to be extracted/visualized
Non-IP Decision makers	Overview of deadlines and all IP matters in relation to projects related objects, i.e. Searches, IDs, Patent applications, costs related to Projects	High	High	Key player/ Influencer	Input and participation in understanding the needs and purposes of which data to be extracted/visualized
Non-IP Project managers		Low	High	Key player/ Influencer	Input and participation in understanding the needs and purposes of which data to be extracted/visualized
External Agents		Low	Low	Least important	Input via the sub project “External Access to IP information”

Appendix 4: Transcript of interview with Project Manager, Sigrid Staub-Lemmer

Q: Can you please go through the main steps the project went through from the moment you were appointed as project leader up to now

A: So, the first contact was made by Hanns (*n.r. Hanns Hallesius, Head of Group Patents*). He asked me if I want to join the project team, not as a leader, but having an important role. Elizabeth (*n.r. Elizabeth Ritella-Stark Project Manager overlooking the total number of process improvement projects being implemented by Group Patents*), being project manager for everything, visited the different sites asking for some feedback on Ipendo.

Then the core team had a warm up meeting in January, in Stockholm and there we identified the project leaders for the different sub-projects. So from mid of January I was appointed project leader.

Q: What were the next steps. After you were appointed project leader you were probably assigned the members in your team?

A: Not really. From that point we had weekly core team meetings and then it was decided to start writing the project plans: thinking about the team members, the reference group. It was up to the team leaders of the different sites to get in touch with their teams and ask them if they want to join the project team, to contribute. When this was done, in March, the project team was appointed and we had the kick off meeting. But there was quite some time between when I was appointed project leader and the project team kick-off meeting.

Q: The project plan. You started working on the project plan initially and when did you start involving your team working on the plan?

A: Actually, it wasn't me who started working on the project plan, it was the Core team. In the beginning not even the business targets weren't set, which made it more difficult. So we had discussions back and forth not only on the content, but also on the format (*n.r. of the project plan*). *The main problem was that we didn't have sufficient knowledge in project management. It was hard to understand what a deliverable is, and the difference between business targets and deliverables and how they interact and what to consider and so on.* But it was the core team who identified the deliverables, not just me and not the team members.

Q: Up to this point in time you have worked on improving the deliverables in order to receive approval on them from the Steering Committee, in the meantime you received from the Steering Committee the business targets for the project.

A: It was actually Elizabeth who was in touch with the Steering Committee, requested it (n.r. the business targets) and provided them. Because Elizabeth is always in between.

Q: Okay, so it's not you who communicates directly with the Steering Committee, but Elizabeth?

A: Currently it's like this, yes.

Q: At the moment you also have other parts of the project plan finalized. So you made a risk analysis, right?

A: yes, I wrote the background and we started and we thought we are done with the stakeholder analysis, but obviously we have to think about it again. And in the beginning we had to draft the complete project plan, so we already have one version, but this can be completely thrown away.

Q: Because it was not approved by the Steering Committee?

A: It was the wrong format. It wasn't easy to understand. We had to change it again and again due to the layout, the requirements. It hasn't been approved.

Q: So basically, the document has several versions and the current one is not finalized?

A: Exactly.

Q: The beginning of the project, when you accepted to lead the project, what was your understanding of the scope of the project and what it was expected to deliver?

A: We have to create templates, pre-defined templates for data extraction because the system and the possibility for data extraction weren't really reviewed between implementation of the system (late 2010) and now. And we also didn't have the time to think about our needs and to get in touch with the stakeholders before implementation.

Q: So the scope was to review the needs for searching data and extracting data from the system and if the needs require more support from the system, then that should be delivered.

A: Yes.

Q: And is that still the goal of the project from your perspective?

A: Yes, I think so, but in a more advanced way, or maybe we only complicated it by ourselves. I am not sure. But we are talking about the same as in the beginning.

Q: Do you think that everyone in you team has the same understanding of it?

A: Yes. Now yes. In the beginning not, but now as we discussed the deliverables all together, and the scope and everything, we are at the same level of knowledge on what is the purpose of the project, so I think yes.

Q: From your perspective, why do you think that defining the deliverables was such a long process? And we agree that it was a long process.

A: For me, the main problem was that the business targets weren't set, or identified and the core team didn't have an understanding of the project terminology and how to run a project and also, the format and the content of the project plan, also deliverables weren't set.

Q: And what I hear from you is that having the business targets helped a lot and made it easier in defining the deliverables.

A: Yes. Because in the beginning, for me at least, it was like reinventing the wheel because you didn't know what to focus on, you just had to think about any situation which might come up. But still if you think about what could be requested from the Steering Committee we didn't even think in the direction as the one given by the business targets.

Q: Can you see a way in which the project you are leading is contributing to the department's vision and strategy? What about the Electrolux strategy?

A: It's a yes and no. Regarding Electrolux strategy, I've got no idea, really. Maybe if they extract the portfolio they can see how many filings (n.r. patent applications) they have in Europe, how many in America, so how strong the portfolio is. Of course the department, for the team members or the department to extract data in an efficient and correct way maybe, but about department's vision and strategy, I've got no idea. I think my project isn't really connected to strategy really.

Appendix 5: Transcript of interview with Head of Group Patents/Project Owner, Hanns Hallesius

Q: Why was the project initiated and what is the impact it should have?

A: The project is initiated as part of a larger change program in relation to how we work - our processes - in connection with the IT system supporting us. We did

implement a new IT system supporting us in our everyday processes, but we did that in too fast maybe, and we did not review and change the processes at that point in time, and the changes we did, we were not persistent enough in securing that they were used. So we've had some hiccups on that. We are not using the engine for what is actually worth and what it can do, the engine being the IT system. This has taken us as one of the first projects in that program. The reason for that is that *this project is about what you can get out of the system*. We have never really been good at that and therefore, it could be an *early win* in relation to the other things (n.r. the rest of the projects in the program) if people can get early value out of the system. So that is showing that there is progress and that we are moving forward and there is hope and so on. Another reason is that the other projects will also partly be related to what data or how to enter data, what data to enter in different situations (checkpoints and so on) in the work processes. This project is about what data you want to see. So it would provide *feedback* to some of the other projects.

Q: Why were the business targets set? What was their purpose?

A: To be fair, I think we started the project a little bit too loose. We started with the overview setting of what I would presently call the program, where all the bits and pieces were sliced and so we saw what are the projects we would actually split this into, which was fair work in itself and we had some difficulties. And then we wanted the project team, or the program management team (n.r. core team) to put a first stage, rough plan in place so that we could understand what kind of competencies are needed, what are the time needs – the resources needs and the resources are people and time and their competencies and when in time would that be - and assign a project team to this. It turned out pretty quickly that they – it should also be said that we are not an organization used to project management, so a little bit amateur/entrepreneurs diving right into things here. What the (n.r. program core) team was trying to do was go directly into what is it we need to do in the project, what are the activities, how can we make a gantt chart of that and how can we put the right people, which people do we want to have. And when we, the Steering Committee, reviewed this, we couldn't really see a good connection as to do they understand why we do it, what is it they are going to give us and it's been right into here is the time plan, more or less. And that did not have a good foundation. Another thing is, we are talking about a project where we are about to define processes, change people's behavior, it's interaction with an IT system so it's pretty complex matters. It's difficult to predefine the task in the sense that we want a square box with nine millimeters here and ten centimeters there; that's not really possible so it's very difficult to scope this, it's difficult to actually give the team a clear unambiguous assignment. So what we also said was, well if we are going to define what we are going to do and what we are going to deliver, we need to understand what good it should do for us, what are the effects that are going to stay with the organization after the project. So not what the project is going to deliver, but which effects are we seeking here? And after some up and down we defined them as

business targets. And those, after some back and forth, were then defined by the Steering Committee in some workshops.

Q: So they are not to be seen as requirements from the Steering Committee, they are more expectations of the project. What impact and what benefits the project should bring to the organization at the end?

A: Yes, the lasting impact thereafter. They are also the answer to the question why are we driving this project, what is it we are trying to achieve. What is the rationale behind actually making a project to get to a new stage where we are performing better? They are not per se defining the requirements, but I think they are of help in defining the requirements. If you understand the why, then you can say, “Here is my solution”. As we did not have a clear common picture of the why and the effects that we were seeking, then we couldn’t really refer to that in setting what is it that we want to have delivered. The full chain here: business targets, deliverables before starting to say now we understand what should be delivered, here is how we think we should do it, that was missing and it created a lot of confusion. This is maybe related to an organization that is less used to driving projects partly because Steering Committee is not very versed in that either, but we could see that it wasn’t good enough. Then we bounced it back to the team that it was unclear. And the team’s first reaction was to do it even more detailed. So we had a few turns before we understood that we have to take it from the other perspective.

Q: How is the project “*Data extraction, Viewing & Reporting*” contributing to the department’s vision and strategy? What about the Electrolux strategy?

A: In relation to the department vision; what we are doing: we are creating patent rights so that we can protect future value generation, future revenue, we are reviewing risks to secure that we are voiding the risks that are presented by competitors’ patents, then we have responsibility to secure that it’s correctly managed. If we look on what are the targets and we make sure that the opportunities of patents and intellectual property are used in the best way and that the risks are mitigated in the best way. These are mainly strategic questions, strategic benefits, strategic performance that I think is the most relevant. it’s around what is it we are to be doing, what should we protect, what should we not protect (as there are limited resources), what do we need to make sure we are not taking risks. So there is a strategic side to it, then there is an operational efficiency side to it: whatever we are to deliver and do, of course we have to do it with as limited resources as possible, limited cost as possible, limited time as possible. If we take the strategic side, where this project contributes is about the things out of the system that in other processes we have actually entered there, all the data that is relevant throughout the lifetime of these rights, throughout the lifetime of the product development project we are supporting, the value of getting that so that the decisions that have been made can actually be made as informed as possible. And we can put structures in place so that decisions are as much as possible aligned with

the business strategy. For example if we decide that the most important benefit that our dishwashers should deliver to our consumers is that we have the most silent dishwasher. If that is the target, then probably technology that provides more silent dishwashers is a key thing in the dishwasher area. And if we have such a target, we want to be able to monitor, follow-up and support decisions, then we want to have data in the system that gives us opportunities to take data out to see the patent portfolio from the perspective of what technology supports silence. There are things on how we spend the money, where we spend the money and so on. The opportunity to actually use the data and put it in the hands of management in a meaningful way that supports their decision-making processes, their business processes that is one of the most important things. Then there is a side of operational efficiency of things. The strategic side concerns also transparency. We have a lot of data, but we are not using it and we don't see it easy enough, so we want to actually make sure that the transparency increases so that we can make use of the data. We also wanted to be quick and easy, so standard things (n.r. templates) to have an easy access to it. There is also some closing the loop items here. So if you on a regular basis report data out of the system, so that throughout the lifetime of a product, patent or project can use that you have previously put it (n.r. in the system) and if you can see the benefit of that, then you get the feedback that there is a meaning that I put this data in, that I am not only putting it in there because someone has told me to or that there is an instruction. We are still in many ways too inefficient in the sense that we still have data spread, and we don't have all data in the system so when we have to make a presentation we have to spend days in gathering data, and formatting it and showing it. We don't want to have to do that. There is a lot of data in the system that is interesting in itself, but we have not always prepared it to be bundled in the way that makes sense, so it's the combinations that are difficult to get to and we want to have those combinations clear, so we want to make sure that the different stakeholder, in different relevant situations, without too much effort can retrieve the data/information in a meaningful that they need and get it presented in a meaningful way that it's easy to grasp and that makes sense. The more we can support strategically, to make sure that the right decisions are made, that is the key thing. Then we have a task that we want to do that as efficiently as possible.

Q: And that is part of the strategy, one of the four pillars of Electrolux strategy is operational excellence.

A: Operational excellence is one, and we are in a cost driven business and that is the connection to the big strategy. Another pillar is innovation – marketing, branding, and there we try... It's an industry (n.r. household appliances industry) with limited differentiation - we are still selling a lot of white boxes, all of us - and we want to find the relevant differentiations, to find small pockets of high profitability in this low margin industry and whenever we can find those, we want to make sure that we make the most out of it and that we protect, where we decide to be strong. And that is the strategic part and how we can make the innovation strategy pay off. Because an innovation strategy without the protection of the innovation will not pay off.

Q: Do you think that the project manager and her team have the same view?

A: I would assume that the project manager and project team would have more of a department perspective, than a group perspective; more of an IP/patent operation perspective, than a Group/business perspective. That would be a fair guess, I think. I think they would have more focus and it would be easier for them to understand and see the efficiency benefits, than the strategic benefits and if you look at the team, they are not a big team, but it's not so many of them that have the strategic connection and get into the rooms where the strategic decisions are made, and when they do get there, they are not forced to try to command and drive it. So they have limitations in what perspectives they have been put in front of. And that is a weakness of the project and we are trying to bridge it with the business targets. You may not necessarily have to understand the ultimate goal of everything, but at least one step closer to the business effects.