To Plant and Grow Innovation

Steering Support for Innovation Processes in Medium Sized Companies

A Case Study at Svegro

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by

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Master of Science Thesis TRITA-ITM-EX 2018:184
KTH Industrial Engineering and Management
Industrial Management
SE-100 44 STOCKHOLM
To Plant and Grow Innovation

Styrning av Innovationsprocesser
i Medelstora Företag

En fallstudie på Svegro

av

Josefin Clemedtson
Emelie Pääjärvi
Abstract
Being innovative and environmentally sustainable can help companies to achieve success. Depending on the size of the company it can be achieved in different ways. When conducting innovation projects, the level of formal steering support might differ, especially if sustainability wants to be achieved. This thesis aims to answer the question how the need of ensuring the firm’s vision of being environmentally sustainable and use it as a marketing advantage affect the need of formal steering support in innovation projects in medium sized enterprises. Until today research have not addressed this question in a sufficient manner whereas focus has been on “SME’s” (Small and Medium sized Enterprises), small or large companies. Large companies need rather formal processes while smaller companies can be more informal and flexible. This thesis takes the perspective of the medium sized company and investigates their specific needs. A variety of innovation projects have been studied at a medium sized company and insights from it has been combined with literature on innovation processes to find the right balance of formality. The conclusion being drawn is that formality is needed especially in the beginning and in the end of an innovation project for a medium sized company if sustainability wants to be achieved and used as a marketing advantage.

Keywords: Steering support, innovation processes, innovation process models, steering innovation projects, medium sized companies, SME, sustainability
Sammanfattning

Nyckelord: Styrstöd, innovationsprocesser, innovationsprocess modeller, styrning av innovationsprojekt, medelstora företag, SME, hållbarhet
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### Abbreviations

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<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>SME</td>
<td>Small and Medium sized Enterprise</td>
</tr>
<tr>
<td>MNE</td>
<td>Multinational Enterprise</td>
</tr>
<tr>
<td>ME</td>
<td>Medium Sized Enterprise</td>
</tr>
<tr>
<td>FEI</td>
<td>Front-End of Innovation</td>
</tr>
</tbody>
</table>
### Glossary

<table>
<thead>
<tr>
<th><strong>Innovation Project</strong></th>
<th>An innovation project can be defined as &quot;a non-recurrent process aiming to formalize a new idea (and purpose) and turn it into an innovation which will be diffused and accepted (or not) by its users&quot; (Fernez Walch, 2017).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medium Sized Company</strong></td>
<td>A medium sized company have between 50-249 employees and the turnover should range between EUR 10-50 million (Uphandlingsmyndigheten, 2018).</td>
</tr>
</tbody>
</table>

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*Swedish contradicting entity*
Acknowledgements

Firstly, we would like to thank everyone at Svegro for letting us study their work. We appreciate that you all have taken the time to support us throughout the process and special thanks go to the interviewees who took the time to provide answers to our questions. Without your input, this study would not have been possible. We would also like to show our greatest gratitude to our supervisor at Svegro, Lisa Lindström. You welcomed us with open arms and supported us whenever needed. Your guidance has been invaluable.

In order to verify our thoughts in the work on this thesis a specialist in the area was interviewed. We would therefore like to thank Sofia Ritzén, professor in integrated product development at KTH, for taking her time and meeting with us. Your input was very valuable.

Last but not least, sincere thanks to our supervisor Andreas Feldmann at KTH. Throughout this project, you have supported us and given us great advice. Your comments and encouragement have really been invaluable. Without your input this project would not have reached the same results.

Josefin Clemedtson and Emelie Pääjärvi
Stockholm, June 2018

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1 Interviewed 2018-04-09 during 1h.
1 Introduction

This chapter aims to give an introduction to the topic of this thesis. Firstly, a background to the identified problem is provided, see Figure 1 for the structure of the background. Secondly the problematisation is presented and thirdly the purpose of the thesis and the research questions are described. Lastly the contribution this thesis aims to give is laid out.

1.1 Background

In a competitive market it is essential to innovate. It is not enough to do it once, you have to do it consistently in all your products, services and business functions (Davila, Epstein and Shelton, 2006). Michael Porter (1998) states that innovation strengthens the competitiveness for countries as well as for sectors and individual companies. Being innovative can lead to a variety of things such as quality improvement, product variations, increased productiveness and profitability (Pilat and Guinet, 1999). Not to forget, innovation can also lead to larger market shares, improved operational efficiency, improved reputation and cost reductions (Abernathy and Clark, 1985; Cooke and Mayes, 1996). Davila, Epstein and Shelton (2006) add improved customer relationship to the list of possible outcomes of being innovative. Many authors have written about the importance of innovation. Brown and Teisberg (2003) stated that:

“Innovation is the lifeblood of successful businesses. [...] [It] has become every firm’s imperative as the pace of change accelerates. The challenges of this imperative increasingly require leaders to manage uncertainty and pursue learning and innovation across the boundaries of firms”.

Figure 1: Graphic overview of the background.
The innovation strategy must fit the organisation’s business strategy. Everyone within the firm also need to be aware and on board with what have been decided, alignment throughout the organisation is sought for if success wants to be achieved (Davila, Epstein and Shelton, 2006). With this in mind it is not peculiar that companies today consider innovation as a key element to maintain their brands existence on the market. Being innovative is fundamental to stay relevant. Firms constantly try to improve their innovation performance and take the lead in new product development in order to succeed in a highly competitive marketplace (Laforet, 2008; Riandita, Yannou-Le Bris and Yannou, 2013). New products need to be developed and new markets need to be explored in order to meet the customer demand (Avermaete et al., 2003).

Important to not forget is that firms in all sizes within the same industry do not have the same prerequisites to succeed with innovations. However, the findings on how innovation and company size relate is somewhat inconclusive (Laforet, 2008). Acs and Audretsch (1987) have come to the conclusion that it is depending on the industry whether the large or small firm will have the relative innovative advantage. Others suggest that large firms should be better innovators than small firms since they have more resources (Avermaete et al., 2003; Laforet, 2008). The Government Office of Sweden (2017) declared that small companies have a higher probability of discovering the next big innovation, but it is the big companies that have the possibility scale up the innovation. Laforet (2008) also state that large firms do not only have advantages over smaller firms, more bureaucracy is in place which does not favour creativity and innovation. Furthermore Laforet (2008) mentions that large firms can be less flexible than small firms. Others states that the findings on innovation differences between large companies and SME’s, Small and Medium sized Enterprises, are dependent on the measurement and interpretation of innovative capacities (Bos-Brouwers, 2009).

Literature on innovation within SME’s is scattered, as noticed above. Bos-Brouwers (2009) draw the conclusion that smaller firms can keep up with larger firms in the field of innovation but that they innovate differently from large companies. SME’s have an advantage due to their way of being but a disadvantage due to their lack of access to resources. The behaviour of an SME include flexibility, little bureaucracy and that informal ways of communication and leadership can take place. As seen in this and the previous paragraph, research is not solely focused on medium sized enterprises.

Davila, Epstein and Shelton (2006) mention that how an organisation handles innovation changes as the company grows and that larger organisations need systems to manage innovations. An innovation system facilitates the innovation process. The system determines the way to work, what to prioritize and how to communicate (Davila, Epstein and Shelton, 2006). A part in the innovation system is innovation project steering models since models help in managing the innovation projects. Bringing forward innovations require some kind of process regardless of company size, the process can be more or less formal. Important to bear in mind is that there is no one-size-fits-all model for handling innovations (Salerno et al., 2015). A common denominator between different models is that some kind of decision making is required. These decisions decide to some extent if the innovation will be successful or not. In
In the first paragraph of this section the possible outcomes of being successful with innovation was laid out. Two of those outcomes were larger market shares and improved reputation. These two are interconnected since having an improved reputation can lead to larger market shares. One way of improving the reputation of an organisation is to become sustainable since it is a factor that many in today’s society value. People are becoming more and more aware of sustainability issues and search for products/services which reflect that. Even with this information in mind companies can be considered as slow in adopting sustainability. It is important for companies to realise the importance of sustainability, especially in marketing purposes, both the company itself as well as the customers can gain from this approach (Kumar et al., 2012).

1.2 Problematisation

Medium sized enterprises, ME’s, belong to the group SME’s which Mousiolis et al., (2015) conclude differ considerably from MNE’s, Multinational Enterprises. It is also found that ME’s have different characteristics than small firms. These differences imply that different levels of formal steering support are needed when conducting innovation projects. Large firms often rely on bureaucracy while small firms can be flexible and not use formal processes to such a great extent. The medium sized companies on the other hand get “stuck in the middle” where they have the possibility of combining “the best of two worlds”. But the question is when formal processes should be applied and to what extent they are needed. If the firm also want to be sustainable and use what they do as a marketing advantage it is of even greater importance that what is being done gets captured. An aspect which formal processes can help with. To conclude, further investigation is called for into the need of innovation steering support in medium sized companies.

1.3 Purpose and Research Questions

The purpose is to investigate the need of support when steering innovation projects in medium sized companies, the support aiming to help the company in being sustainable and use it as a marketing advantage. The Swedish company Svegro, a producer of herbs, lettuce and potatoes, with a vision of being sustainable, act as case company in this thesis. In order to operationalise the purpose a research question with related sub questions have been posed:

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1 Sustainability is a wide concept with three main pillars, economic, social and environmental (UN, 2018). In this thesis the focus will be on the environmental aspects. Hereafter when sustainability is mentioned it is to be referred to as environmental sustainability.
**Research Question:** How does the need of ensuring the firm’s vision of being environmentally sustainable and use it as a marketing advantage affect the need of formal steering support in innovation projects for medium sized enterprises?

- In what kind of innovation projects are formal steering support needed for medium sized companies?
- How can the fulfilment of the firm’s environmental sustainability vision be ensured when conducting innovation projects?

### 1.4 Contribution

Literature specific to medium sized companies and innovation processes is almost non-existent. In the work on this thesis it was noted that related literature can be found (not to a great extent on all categories) for small companies, SME’s and large companies. The conclusion drawn from this was therefore that innovation processes specifically for medium sized companies is an understudied field. Some researchers also state that how SME’s work with innovation is in short supply (Avermaete et al., 2003; Bos-Brouwers, 2009). This thesis will contribute with empirical insights from a medium sized company into the context of innovation processes.

For practitioners this thesis will contribute with insight on when to apply formal innovation processes in a medium sized company, especially if sustainability wants to be achieved and used a marketing advantage.

### 1.5 Disposition of the Thesis

1. **Introduction**
   - Background
   - Problematisation
   - Purpose and Research Questions
   - Contribution
   - Disposition of the Thesis

2. **Innovation Process Steering**
   - General Innovation Process Models
   - Merged Innovation Process Models

3. **Research Design and Methodology**
   - Research Design
   - Data Collection
   - Research Quality
   - Research Process

4. **Findings and Analysis**
   - Within-Case Analysis
   - Cross-Case Analysis

5. **Discussion and Conclusion**
   - Managerial Implications
   - Limitations and Implications for Further Research
Summary Chapter 1
This chapter has introduced the reader to the topic of this thesis which is the need of formal steering support for innovations projects with a sustainability focus in medium sized companies. The background to the thesis is as follows: All firms regardless of size can gain positive outcomes of being innovative. The outcomes can be things as increased market shares and improved reputation. Though, firms of all sizes do not have the same perquisites to succeed with innovation. Small firms are often considered to be flexible and not in need of formal processes while big firms have access to large resources but have a lot of bureaucracy which does not favour innovation. It is concluded that the research in this field is scattered. However, innovation projects require some kind of process model which can be more or less formal. It is stated that there exists no such thing as a one-size-fits-all model for innovation projects but what is known is that the success of the project will be influenced by the decisions being taken in the process. Furthermore, the research question which this thesis aims to answer is presented; How does the need of ensuring the firm’s vision of being environmentally sustainable and use it as a marketing advantage affect the need of formal steering support in innovation projects for medium sized enterprises?
2 Innovation Process Steering

In this chapter relevant literature and theories are presented and further explained. Firstly, an introduction is given to Innovation Systems which is the overarching system that frames the innovations process. To further obtain a clear structure two general innovation process models are laid out. The merge of these results in a framework unique for this thesis. The framework then acts as a foundation for the remaining parts of the thesis.

Having established innovation systems can help companies to be innovative and capture the benefits of it. An innovation system consists of policies, procedures and information mechanisms that facilitates the innovation process (Davila, Epstein and Shelton, 2006). It aims to recognize the conditions for successful innovation (Edquist, 1997). Further Davila, Epstein and Shelton (2006) present the role that an innovation system has:

- Increases efficiency
- Creates appropriate ways of communication within the company and with outside parties
- Coordinates between projects and teams with minimum effort
- Establishes ways to capture learnings from innovation and make the information available to everyone. Davila, Epstein and Shelton (2006) highlights that learning increases the understanding of the innovation process itself and that it can enhance competitive advantage
- Align the objectives of various constituencies. Everyone within the organisation have to understand the company strategy and how it will affect the daily work. As an organisation grows the management cannot rely on informal interactions to achieve this

When steering innovation processes different levels of formality can be applied. In an explorative paper on how radical innovation projects are steered it is found that the early stages of the processes are characterised by a flexible and social control management, while diagnostic control, meaning ensuring that decisions align with organisational goals, emerges in the late development and launch (Chiesa et al., 2009). Salomo, Weise and Gemünden (2007) on the other hand suggest in their study on new product development that it is important with formality in the development phase, as in planning the project carefully. Another study on product development by Tatikonda and Rosenthal (2000) shows that firmness and flexibility play different roles but are compatible together. Firmness is acquired through project management and formality which provides an overall control and structure for the project. Flexibility on the other hand is achieved by project management independence and resource flexibility. Effective product development requires organizational flexibility within a structure i.e. firmness in the sense of having a predetermined structure and flexibility in the nature of work within that structure (Tatikonda and Rosenthal, 2000).
2.1 General Innovation Process Models

Regarding company size and whether to apply informal or formal processes, apart from what was presented in the background of this thesis, Davila (2005) concluded that "An informal approach to the coordination and control of organizational activities becomes harder (and costlier) as the organization grows; formalizing these management activities becomes vital for future growth". Davila (2005) also found a pattern between percentage of controlled systems and company size. The percentage increases for companies up to a size of 34 people, then it flattens and starts increasing again when the size of the organisation reaches around 75 people.

Innovation processes can be divided into different phases which also can be called stages or activities. The processes have traditionally been understood as a sequence of phases in most cases starting with idea generation/searching followed by selection/screening and development and finished with a launch/diffusion/sales phase. In literature it is possible to find various names and arrangements of innovation processes. Important to remember is that there is no “one-size-fits-all” model for innovation projects (Salerno et al., 2015).

For the purpose of this thesis two models that have been considered having a general character have been combined into a framework that is intended to be used for both structuring this literature chapter, the innovation projects at the case company and the discussion. The models are “Four Phases of Innovation” and “Eight configurations of Innovation Processes” and they are presented below. The first model, the red, is theoretical while the second, the green, is explorative; another reason why choosing these two different models.

Four Phases of Innovation

Frankenberger et al. (2013) studied process models from innovation management and insights from several cases of past innovations and developed a framework from the obtained knowledge and insights. The framework consists of four phases: Initiation, Ideation, Integration and Implementation, see Figure 2.

![Figure 2: General innovation process consisting of four phases (Frankenberger et al., 2013).](image)

Frankenberger et al. (2013) recognise the first phase of the innovation process as the *initiation* phase which is concerned with identifying whether there is a need for innovation or not. The second phase *ideation* is concerned with turning the needs identified in the initiation phase into innovative ideas (Frankenberger et al., 2013).

The *integration* phase is involved with developing one of the innovative ideas generated in the ideation phase. Furthermore, the idea gets embedded and integrated into a broader context. The
fourth phase, *implementation*, deal with the implementation of the innovation and brings it to the market (Frankenberger et al., 2013).

**Eight Configurations of the Innovation Process**

A large exploratory study performed by Salerno et al. (2015) analysed the flow, characteristics and contingency of 132 innovation projects in 72 companies mainly present in Brazil, but also France and Netherlands. The companies differed with regards to sectors, size, age and with or without formal R&D departments. The study states that there is no evidence on country differentiation regarding innovation processes.

The study identified eight configurations of the innovation process, see **Figure 3**. The start of the process differentiates by the first phase. The idea can be from the company itself, from the customer or it is a joint collaboration between the two that is either initiated by the company or customer. The following variations includes a stoppage waiting on the market and/or technology. The last one includes parallel phases where development and diffusion take place simultaneously. Such as in the case of launching beta versions (Salerno *et al.*, 2015).

![Figure 3: Summarising chart of the eight configurations of innovation processes recognized by Salerno et al. (2015).](image)

**2.2 Merged Innovation Process Models**

The combination of the two general innovation process models presented in the previous section resulted in an innovation process framework containing the phases Initiation, Conceptualisation and Execution. The framework came to be named the ICE framework. **Figure 4** shows how the two general models were merged together.
**Figure 4:** The merge of a theoretical (red) and explorative (green) case study that results in this thesis framework, the ICE framework.

Within the ICE framework, other relevant innovation processes found in literature are shortly described, see Table 1 for an overview.

**Table 1:** Framework for innovation process phases.

<table>
<thead>
<tr>
<th>INNOVATION PROCESS PHASES</th>
<th>Initiation</th>
<th>Conceptualisation</th>
<th>Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage-Gate</strong></td>
<td>Idea</td>
<td>Detailed investigation</td>
<td>Testing and validation</td>
</tr>
<tr>
<td>(Cooper, 1990)</td>
<td>Preliminary assessment</td>
<td>Business case preparation</td>
<td>Full production and market launch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development</td>
<td></td>
</tr>
<tr>
<td><strong>Third-generation model</strong></td>
<td>New need</td>
<td>Research, design and development</td>
<td>Prototype production</td>
</tr>
<tr>
<td>(Rothwell, 1994)</td>
<td>New tech</td>
<td></td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Idea generation</td>
<td></td>
<td>Marketing and sales</td>
</tr>
<tr>
<td>Innovation as a core business process (Tidd and Bessant, 2013)</td>
<td>Search</td>
<td>Select</td>
<td>Implement</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Four Phases of Innovation (Frankenberger et al., 2013)</strong></td>
<td>Initiation</td>
<td>Integration</td>
<td>Implementation</td>
</tr>
<tr>
<td>Ideation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eight configurations of innovation processes (Salerno et al., 2015)</strong></td>
<td>Idea from company and/or customer</td>
<td>Screening</td>
<td>Development</td>
</tr>
</tbody>
</table>

### 2.2.1 Initiation – Initiating an Innovation Project

The initiation phase of the innovation process is characterised in different ways. Rothwell (1994) presents in his paper "The third-generation model of innovation" that an innovation starts with iterating new need, new tech and needs from society and the marketplace with idea generation, see **Figure 5**.

![Figure 5](image)

**Figure 5:** The third-generation model of innovation (Rothwell, 1994), highlighting the initiation activities.
Tidd and Bessant (2013) describe their Searching phase as “How can we find opportunities for innovation?”. It includes new technology, new demand from the market and competition, which presumably is called marketplace by Rothwell (1994).

The Stage-Gate process has an analogy to the production process for manufacturing a physical product. The production process is often sub-divided into a number of stages or work stations. Between each work station or stage, there is a quality control checkpoint or gate, see Figure 6. The stages are where the work is done while the gates ensure that the quality is sufficient (Cooper, 1990). The Stage-Gate process in the Initiation phase of this thesis starts with an idea evolving. The Stage-Gate process does not focus on the idea generation part. The first gate is called initial screen and acts, as all gates, as an entrance to the next stage. After it comes the first stage, preliminary assessment. A set of deliverables must be brought to the gate by the project leaders as input and the output is usually a Go/Kill/Hold/Recycle decision that is taken by senior managers who act as “gatekeepers” (Cooper, 1990). The input in the first gate deal with strategic alignment, project feasibility, magnitude of the opportunity, differential advantage, synergy with the firm’s core business and resources, and market attractiveness. Financial criteria are not part of this first screen. The preliminary assessment stage gathers slighter market and technical information (Cooper, 1990).

![Figure 6: The stage-gate process (Cooper, 1990).](image)

2.2.1.1 Front-End of Innovation

Eco-innovations refer to new and competitively priced goods, services, systems, processes and procedures that also perform better environmentally than relevant alternatives (Reid and Miedzinski, 2008). The initial phase of an eco-innovation process is often called Front-End of Innovation, FEI (Bocken et al., 2014). The FEI process is considered to be an important stage because once product specifications are decided, only minor changes concerning the sustainability of the product can be made (Herstatt and Verworn, 2001; Bocken et al., 2014). Herstatt and Verworn (2001) found that at the beginning of the process the influence on the outcome is extremely high and diminishes as the process flows. The cost of changes are lowest in the initial stages of the innovation process (Herstatt and Verworn, 2001). Effective FEI management is carried out through the management having clear goals (Johansson, 2002), offering support (Boks, 2006) and being committed (Petala et al., 2010).
2.2.2 Conceptualisation – Transforming the Ideas

The second phase of the innovation process Eveleens (2010) describes as “turning the (selected) idea into some tangible product, process or service”.

It is proposed that stage 2 and 3 of the Stage-Gate process, see Figure 6, belong to the Conceptualisation phase in this thesis. In stage 2, the detailed investigation, one need to decide whether the project is worth investing heavily in and the project need to be defined clearly. Tidd and Bessant (2013) agrees that a decision has to be made on whether an investment should be made or not. Since a company cannot take an unlimited amount of risks one cannot invest in all projects. The decision on what to select and invest in should fit the firm’s business strategy and build upon established areas of technical and marketing competence. If a firm wants to build new competencies outside the already existing ones a clear development strategy need to be developed (Tidd and Bessant, 2013). See Figure 7 for a complete picture on the process by Tidd and Bessant (2013). Cooper (1990) do not contradict Tidd and Bessant (2013) but highlights that the market needs to be examined thoroughly and that the customers’ needs, wants and preferences must be defined. Rothwell (1994) also highlights that the research phase is of great importance in the innovation process. The gathered insights should then be translated into technically and economically feasible solutions according to Cooper (1990). The product/service later get “tested” and the likely customer acceptance is determined. As a final step at stage 2, a detailed financial analysis must be made and act as an input to gate 3 (Cooper, 1990).

Gate 3 decides if heavy financial commitments are to be made or not. An agreement of the following key items need to be made (Cooper, 1990):

- Definition of the product concept
- Specification of the product positioning strategy
- Delineation of the product benefits to be delivered
- Product features, attributes and specifications

At stage 3 the product/service is developed, the financial analysis is updated and legal/patent/copyright issues are resolved (Cooper, 1990). All three models in Table 1 contain the design/development phase.
One of the innovation configurations that Salerno et al. (2015) found starts with the diffusion of the innovation project before the end of development. The development goes on until a first version or a sample is obtained. There is nevertheless a version of the product available that enables the company to start the diffusion which is done in parallel with the remaining development. The process with parallel activities may be used as a strategy to occupy the market, to create a demand, to test solutions, to obtain suggestions and to improve the final versions (Salerno et al., 2015).

2.2.3 Execution – Executing the Project

The idea that was selected and conceptualised need to be transformed into an innovation (Tidd and Bessant, 2013). Meaning it have to be diffused and adopted by the market. Tidd and Bessant's (2013) implementation phase, which in this framework belongs to the Execution phase, consists of three core elements:

- **Acquiring knowledge** – The combining of new and already existing knowledge in order to solve problems that appear along the process. A challenge at this stage is to create conditions in which innovation related activities can be performed effectively (Tidd and Bessant, 2013).
• *Executing the project* – At this stage the concept and belonging ideas are being realised. After this stage the innovation is developed and so is the market (Tidd and Bessant, 2013).

*Launching and sustaining innovation* – The new product, service or process need to be diffused and adopted by the market. Getting the market aware is not enough to get the concept completely adopted. An interest need to be created, for example, forging a link between the new concept and a personal need. If the implementation concerns internal (process) innovations, change management processes suitable for the situation need to be applied. Key aspects to success at this stage include an understanding of user need and an involvement of users in the innovation process (Tidd and Bessant, 2013).

Rothwell (1994) and Cooper (1990) both have a stage in their models which is concerned about testing and validation/prototype production. Cooper (1990) explains that the following activities are performed in his model:

- The product is tested with regards to quality and performance
- The product is tested by the intended users under the actual use conditions. An extra gain from this activity is that the reactions from the users can be collected and turned into valuable insight
- The production process is tested
- Test of the market, the product is put on a sales trial
- The financial analysis is revised

Gate 5 “opens the door to full commercialisation”, financial projections play a key role in whether the door to commercialisation opens. The operation and marketing plans also get approval at this final gate. Stage 5 is when the launch and operations plan gets implemented (Cooper, 1990).

Salerno et al. (2015) found that there are three configurations of the innovation process that comprises a stoppage waiting for either the market and/or technology once started the diffusion of the project. Regarding the market stoppage, the process is as the traditional one from idea to launch until an uncertainty related to the market causes a temporary halt or pause after initial sales. It can be that the perceived market is not large enough to justify further development. The company then needs to allocate resources to enlarge or create the market by searching for new clients. The stoppage is an active phase with the project not being abandoned, as in putting a rejected idea “on shelf” for an eventual future use. The company needs to deepen its knowledge of the particular market which leads to less future uncertainties. Then develop the idea further before starting the diffusion again. The technology stoppage is a similar process, but the stoppage is caused by a technological bottleneck within product or process development. The most common cause for the bottleneck is not being able to scale up the production. Other reasons might be public institutions and partners (Salerno *et al*., 2015).
Following the implementation comes the capturing phase in the model developed by Tidd and Bessant (2013). There is a goal behind the development of innovations. The goal is often to capture some kind of value. It can range from commercial success, gaining market shares and cost reductions to changing the world. Also, at this stage, learnings from previous project can be captured (Tidd and Bessant, 2013). Cooper (1990) call this last stage post-audit and explains that it consists of a critical assessment of the project’s strengths and weaknesses and what can be learned from the project.
Summary Chapter 2
This chapter has presented the literature which is intended to help answering the research question in this thesis. To start with, two general innovation processes which is divided into different phases were introduced. The first one divides the innovation process into initiation, ideation, integration and implementation. This model is seen as general since there are no firm decision points and detailed descriptions on what has to be included in each step. The second process presents eight configurations of the innovation process mainly varying around where the idea comes from. A framework, called the ICE framework, was later developed from the merge of these two general innovation processes. The framework consists of three phases: Initiation, Conceptualisation and Execution. The “content” of the phases is as follows; 

Initiation is the phase where one search for possibilities, is there a need which is not satisfied or have new technology been developed. The second step is to take these possibilities and turn them into ideas, the second phase, Conceptualisation is therefore where it is decided what is to be developed. One has to make a decision based on a thorough investigation, but the innovation also have to fit the firm’s strategy. The facts collected should then be translated into solutions which also need to be defined, specifications have to be written and everything have to be put into context. The third and last phase, Execution, is about testing and prototyping. Knowledge on how the implementation could be made also need to be acquired. Based on the newly acquired knowledge and testing a decision on whether the innovation should go to full scale production needs to be taken. Marketing and operation plans also have to be decided upon. In some cases, it stops here because the market might not be ready for the product. But if it continues the product should get diffused and an interest around it need to be created. If the innovation concerns internal processes focus has to be put on change management. The last phase in the innovation process also concerns capturing value and assessing the project.
3 Research Design and Methodology

This chapter presents the methods used in this thesis to gather information. The methods used are defined and critically discussed. Further, the quality of the thesis as well as the research process is presented and discussed.

3.1 Research Design

The research design involves finding an answer on what has to be studied in order to obtain the data that will solve the problem that the problematisation entails. The research design is a model of how to make the problematisation researchable (Blomkvist and Hallin, 2015). The nature and approach of this research will be regarded as well as the case study and the case company.

The nature and approach of the thesis

This thesis is of an exploratory nature, meaning that the purpose is to study something that is not yet explored to a great extent (Blomkvist and Hallin, 2015). An abductive approach was chosen which means an iteration between studying literature and theories and the empirical material. This approach let the empiric part influence the literature and vice versa (Blomkvist and Hallin, 2015).

Case study

A case study was conducted due to the nature of the research question, which is: How does the need of ensuring the firm’s vision of being environmentally sustainable and use it as a marketing advantage affect the need of formal steering support in innovation projects for medium sized enterprises? A case study is appropriate when the research question is of a why, what or how character (Yin, 1994; Voss, Tsikriktsis and Frohlich, 2002). It was also necessary being able to study the case company and their innovation processes in detail. The case study allows for collection of enough data so the object being studied can be used to explore, explain or describe the phenomenon the thesis will be about. A case study also has the opportunity of capturing the complexity of reality which an experiment or survey do not have (Blomkvist and Hallin, 2015). The number of case companies studied was kept at one since it gives greater opportunity for depth in the observations being made (Voss, Tsikriktsis and Frohlich, 2002). Single cases can also allow studying several contexts within the one case (Mukherjee, A, Mitchell, W, Talbot, 2000).

This thesis studies a number of innovation projects at the case company. Therefore, an embedded design was used. An embedded design means doing multiple levels of analysis within a single study (Eisenhardt, 1989). By investigating the variety of “evidence” in subunits you focus on different aspects of the case (Scholz and Tietje, 2002). The case study involves multiple cases within the case company which are not completely independent since they
belong to the same company. The cases (innovation projects) were a mix of current and retrospective projects. The retrospective cases generate a more controlled selection of cases, partly because it is possible to identify whether the projects have been a success or not (Voss, Tsikriktsis and Frohlich, 2002). The current projects are on the other hand more relevant for the interviewees, which might make them remember details easier. Svegro is not a large company with a large number of projects going on at the same time hence the selection of a mix in current and retrospective projects. Furthermore, the projects were chosen to get a width throughout the company so that not only one department would be considered. Therefore, they were selected from different departments to receive a fair view of how the whole organisation work.

**Case company – Svegro**

The case company was chosen with care. In order to fit the scope of this thesis the company needed to belong to the group “medium sized companies”. If seeing to the size that meant that the company should have between 50-249 employees and the turnover should range between EUR 10-50 million (Upphandlingsmyndigheten, 2018). The choice of company fell on Svegro. Svegro is a Swedish company founded in 1960 who started their business with buying and distributing vegetables in the Stockholm area. Today Svegro has grown and offer herbs, lettuce and potatoes of high quality to big parts of Sweden. See Figure 8 for an example of a product they offer. The goal is to offer the Swedish consumers flavourful dining experiences (Svegro, 2018). In total Svegro have around 90 employees, whereof 20 people working in the office, 60 people in the production and 10 people in maintenance, see Appendix 1 for an organisational overview. Their annual turnover is 285 million SEK (around 28 million EUR) (Allabolag, 2017). Hence, Svegro is seen as a medium sized company.

![Figure 8: An example of a product by Svegro, their bestselling ‘Organic Basil’](image)

---

1. Swedish contradicting entity
3.2 Data Collection

The empirical data were gathered through observations, interviews and collection of documents at the case company. All data collection methods are presented below.

3.2.1 Observations

The authors of this thesis spent a great amount of time at Svegro. On average two days per week during one semester were spent at the company on Färingsö, Stockholm, Sweden. During this time personal observations, informal conversations and attendances at meetings and workshops took place. Informal conversations were a big part of the whole case study, hence the lower number of structured interviews. This approach allowed for more concentrated interviews since the basic conditions concerning the studied events were already known.

The collected information from the observations were written down at the end of each day in a weekly document. This document was reviewed once a week and the gathered information was used in the report if it was considered to be relevant to the thesis. The information mainly had a general character concerning the studied projects or the way they work at Svegro.

3.2.2 Interviews

The central part of the case study was interviews with employees from different departments within Svegro, see Table 2 for a summarising chart. The conducted interviews varied in character as the work on the thesis proceeded. As a start, interviews of an open character (pre-study) were held since it can bring forward new dimensions of what is being studied (Blomkvist and Hallin, 2015). After the initial interviews, semi-structured interviews were conducted. Semi-structured interviews allows for disclosure of important aspects of human and organisational behaviour (Qu and Dumay, 2011), which was sought for. The aim when conducting the interviews was to collect information on the different innovation projects being studied within Svegro but also on their way of working with projects. The interviews gave detailed information on the projects in difference from the observations. The initial interviews in the pre-study phase also gave information of a general character (Qu and Dumay, 2011), which was sought for.

The topic of the interview was thoroughly investigated before each interview. This is a necessary step in the process if the data which is to be collected should be useful for the research (Qu and Dumay, 2011). Another preparation was creating an interview guide for the semi-structured interviews. The interview guide can be seen in Appendix 2. What kinds of innovation projects the interviewees had been part of was asked for, and how the process for those projects had been.
Table 2: Conducted interviews at Svegro.

<table>
<thead>
<tr>
<th>Title</th>
<th>Date of Interview</th>
<th>Length of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivation manager</td>
<td>2017-10-17*</td>
<td>2h</td>
</tr>
<tr>
<td></td>
<td>2018-02-13</td>
<td>1h</td>
</tr>
<tr>
<td></td>
<td>2018-04-17</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td>2018-05-04</td>
<td>45 min</td>
</tr>
<tr>
<td>Production manager</td>
<td>2017-10-17*</td>
<td>2h</td>
</tr>
<tr>
<td></td>
<td>2018-02-13</td>
<td>50 min</td>
</tr>
<tr>
<td></td>
<td>2018-05-08</td>
<td>30 min</td>
</tr>
<tr>
<td>Cultivation specialist</td>
<td>2018-02-23</td>
<td>45 min</td>
</tr>
<tr>
<td>Cultivation specialist</td>
<td>2018-02-23*</td>
<td>40 min</td>
</tr>
<tr>
<td>Cultivation specialist</td>
<td>2018-04-26</td>
<td>1h 10 min</td>
</tr>
<tr>
<td>Marketing and Innovation manager</td>
<td>2018-03-01</td>
<td>2,5 h</td>
</tr>
<tr>
<td></td>
<td>2018-04-11</td>
<td>50 min</td>
</tr>
<tr>
<td>CEO</td>
<td>2018-03-28</td>
<td>1h</td>
</tr>
</tbody>
</table>

* Unstructured interview

As interviews proceed, it is important to keep previous responses in mind while at the same time take in new information and process it (Voss, Tsikriktsis and Frohlich, 2002). Yin (1994) highlights the importance of being unbiased by pre-conceived notions and that one need to be receptive and sensitive to contradictory evidence. This was kept in mind during all times since it was considered to be of high importance.

During the interviews notes were taken and some interviews were recorded. The recorded interviews help in remembering exactly what people have said (Voss, Tsikriktsis and Frohlich, 2002). The interviews that were recorded were often of a complex nature and it was assessed that it would be hard to remember what was said afterwards and difficult to write down during the actual interview. The choice to not record some of the interviews was taken since it would not allow for the same level of freedom when speaking about matters that could be sensitive to some. It was also assessed that due to the closeness to all interviewees at Svegro, it was possible to double check information if something was forgotten or confusing.

The recorded interviews were not transcribed in full detail. Meaning it was not written down exactly what all parties in the interviews had said. When listening to the recorded interviews a judgement was made regarding if what was said were considered to be of importance or not.
What was important was then written down without distorting of it. The possibility to go back and re-listen to the interview also existed if clarifications had to be made. Through the program Microsoft OneNote it was easy to return to special parts of the interviews if needed. The interviewees also got the chance to read through the report with highlights on their contributions before publishing. In this way we made sure no faulty information were to be published.

### 3.2.3 Collection of documents

In order to get to know more about the case company, documents were collected. The documents contained information that the interviewees did not always know by heart and were among others the business strategy, a product development plan, project evaluations and annual reports. Some of the collected documents contained sensitive information and could therefore not be a part of this report.

### 3.2.4 Ethical considerations

Guidelines when conducting the interviews have followed the Swedish Research Council’s four principal requirements which are: the information requirement, the consent requirement, the confidentiality requirement and the good use requirement (Blomkvist and Hallin, 2015). How they have been used in this thesis is described below:

- **The information requirement:** The company supervisor informed all office employees at the company by email that two thesis workers would be present and informed them about the purpose of this study. Questions to interviewees were most often sent via email before the interview took place.
- **The consent requirement:** The people that were studied were always willing to participate and help. If they said something they regretted it was removed.
- **The confidentiality requirement:** All information received from Svegro was treated with care and some parts could not be mentioned in the report.
- **The good use requirement:** What the thesis was about and what was wanted from the interviewee was gone through in the beginning of each interview as a reminder. Deviations from the topic was sometimes made but to both parts agreeing to explore another area.

### 3.3 Research Quality

To give this thesis a high level of credibility data was gathered from multiple primary and second sources. All data have also been analysed impartially. This is so the quality of the thesis would not be compromised. Discussions on the topic of this thesis have also been held with a professor with knowledge in the area in order to further ensure a high quality.
3.3.1 Validity and Reliability

To have a high validity in research one must study the right thing that is relevant for the investigation. The data being collected also have to be in-line with the study’s field of subject (Blomkvist and Hallin, 2015). Reliability is defined by Blomkvist and Hallin (2015) as studying the right things properly. Yin (1994) describes reliability as the extent to which the results of the study can be repeated and have the same results. To achieve validity regular meetings with the supervisor of this thesis were held. During these meetings, among other things, it was discussed what had to be studied in order to answer the research question. Also, continuous reflections on the matter took place by the authors.

The construct validity can be tested by using multiple sources of evidence or for example seek triangulation (Voss, Tsikriktsis and Frohlich, 2002). Triangulation consists of collecting data on the same phenomenon with different methods such as interviews, direct observations and analysis of documents. For a literature study this means to find several sources that say the same things (Voss, Tsikriktsis and Frohlich, 2002). When studying the innovation projects in the work in this thesis, employees were interviewed, observations were made and documents from the projects were studied. All these measures were taken in order to increase the validity of this thesis.

When the interviews were conducted, the same questions were asked to multiple persons. By asking the same questions to a number of people the reliability of the data can be enhanced (Voss, Tsikriktsis and Frohlich, 2002). To improve reliability Voss, Tsikriktsis and Frohlich (2002) suggest to take notes when conducting interviews/making observations and expand them as soon as possible afterwards. In the work on this thesis notes were taken during all formal interviews and observations. The notes were expanded directly afterwards if the interview was not recorded. In the case that the interview was recorded the expanding of notes was not always seen as an as urgent task and could therefore wait.

3.3.2 Generalisability

The choice of a single case causes limits with regards to generalisability (Voss, Tsikriktsis and Frohlich, 2002). This means that in order to draw general conclusions about medium sized companies regarding formal steering support, more medium sized companies would need to be studied. A case study cannot result in statistic generalisability. One cannot declare that the findings from one single case will apply to all other cases with statistical generalisability, even if they are similar. Nonetheless analytical generalisability can be achieved. Analytical generalisability commands that the authors discussing in which ways the results can be applicable in other cases. In order to do this the case study need to presented in detail (Blomkvist and Hallin, 2015).
3.3.3 Source Criticism

The primary sources were collected through interviews and therefore there is a risk of observer bias. To overcome this issue one can have multiple interviewers. Then the interviewers can review each other and what they have observed (Voss, Tsikriktsis and Frohlich, 2002). In the work on this thesis both authors have been present during all interviews in order to reduce the risk of observer bias.

The interviewees have been asked questions about retrospective cases. Due to this their answers might be subject to bias. Voss, Tsikriktsis and Frohlich (2002) state the following; “participants may not recall important events and, even if they do, their recollection may be subject to bias”. To overcome this issue not only one employee has been asked about a certain project. In this way it was possible to see what was missing and what information that was faulty.

3.4 Research Process

The research has been an iterative process. When the empirical data have shown unexpected results the purpose, research questions and theory have been altered accordingly but also the other way around. This was done so the thesis could achieve a higher quality. It also makes the thesis more interesting and relevant, especially for the company being studied (Blomkvist and Hallin, 2015). To change the research questions, to let it evolve over time, is a common feature in case research. It allows for development of more knowledge than a fixed question would (Voss, Tsikriktsis and Frohlich, 2002).

The process of conducting this thesis can be divided into different phases, see Figure 9. The first phase, the pre-study, consisted of exploration of the area being studied. A brief literature study was made to gain deeper insight into the area and discover the possibilities the chosen focus entailed. In combination with the brief literature study, unstructured interviews were conducted to get a sense of how the case company handled innovations and what their thoughts on innovation in general. The second phase consisted of studying literature simultaneously as conducting the case study. The literature study, presented in Chapter 2 Innovation Steering, was done in order to gain an understanding of existing innovation processes and theories covering the field. Throughout the literature study reliable secondary sources such as books, articles and websites were used, mainly from KTH Primo. KTH Primo directs to both articles and databases such as Science Direct. Keywords have been “innovation processes”, “innovation phases”, “innovation steering models”, “models for innovation”, “innovation, company size”, “ensuring sustainability processes”, and combinations of these. When enfolding the literature, comparisons with both conflicting and similar literature were done. Comparing conflicting literature builds internal validity, while comparing similar literature sharpens generalizability. Both concept raises the theoretical level (Eisenhardt, 1989).
The case study was a mapping of current and retrospective innovation projects at Svegro. Activities in each project were listed and key events related to the innovation process were highlighted and compared. Similarities and dissimilarities among the projects were brought out. Analysing the data is the most difficult and least codified part of the process but it is the heart of building theory from case studies (Eisenhardt, 1989). Within-case analysis is one method of analysing the data and refers to becoming familiar with each case as a stand-alone entity, in this circumstance each innovation project. It allows the unique patterns of each case to emerge before generalizing. Coupled with within-case analysis is cross-case search for patterns. It forces investigators to look beyond initial impressions and see evidence through several lenses by for example sift cases into different categories (Eisenhardt, 1989). Categories in this thesis were mainly formality and sustainability. The third and last phase consisted of a review of the gathered material as well as an analysis of it in conjunction with the learnings from the literature.

Figure 9: Graphical overview of the research process for this thesis.
Summary Chapter 3
This chapter has presented the reader to the methods used in this thesis. The thesis is exploratory, meaning that the purpose is to study something that not yet is explored to a great extent. In order to let the empiric material influence the literature and vice versa an abductive approach was chosen. Svegro, a Swedish company outside of Stockholm which sells herbs, lettuce and potatoes was chosen as the case company. The company was chosen since it among other reasons is a medium sized company. Within Svegro, a number of innovation projects have been studied and analysed both within and cross case. The innovation projects were current or retrospective and chosen in order to get a width throughout the company. The data collection consisted of many observations, interviews and document gatherings. The Swedish Research Council’s four principal requirements are followed regarding ethical considerations.
4 Findings and Analysis

The following chapter aims to present the empirical material gathered for the purpose of this thesis. As a starting point the cases that have been studied will be presented as a within case analysis. Afterwards a cross-case analysis is laid out in order to present the common denominators for the different phases in the innovation process. All data presented in this chapter is from the case company, the authors have not expressed any of their own opinions.

Svegro is in a position where structure and formality are needed to a greater extent due to their size. The CEO finds the balance between formality and creativity interesting and something they need to work on. The level of formality today is limited but at the same time it cannot completely take over since not all employees are used to being formal and participate in long meetings, also stated by the CEO. Furthermore, he stated that he does not think they should take longer time than what absolutely is needed for certain activities in their work.

4.1 Within-Case Analysis

Within-case analysis of seven innovation projects have been made. The projects belong to different departments, see Table 3 for an overview of the projects with their belonging department. The project processes are divided into the ICE framework. This section will then present and analyse the seven projects in detail.

Table 3: Overview of conducted innovation projects.

<table>
<thead>
<tr>
<th></th>
<th>Initiation</th>
<th>Conceptualisation</th>
<th>Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming in multiple levels with LED</td>
<td>Grow vertically</td>
<td>Test LED lights in combination with the plants</td>
<td>Construct new area and put it to use</td>
</tr>
<tr>
<td>Production/Cultivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED-lights in lane 11</td>
<td>Use LED lights</td>
<td>Try LED lights in lane 11 as a complement</td>
<td>Implemented with success but no evaluation took place</td>
</tr>
<tr>
<td>Cultivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product development</td>
<td>New products</td>
<td>Test under which conditions the plants will grow optimally</td>
<td>Launch and promote the product</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Marketing/Cultivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cardboard Box for potatoes</strong></td>
<td>New and unique packaging design and material</td>
<td>Develop a new packaging design, examine what materials that can be used</td>
<td>Launch and promote the packaging</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pot sizes</strong></td>
<td>Change pot size of certain plants</td>
<td>Test which plants can grow in smaller pots</td>
<td>Make the switch to smaller pots</td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Restaurant market</strong></td>
<td>Selling overproduction</td>
<td>Examine different ways of packaging that suits the purpose</td>
<td>Implement in production and start selling.</td>
</tr>
<tr>
<td>Production/Sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper packaging wrap for herbs</strong></td>
<td>New sustainable packaging</td>
<td>Test different variants, then decide which products will get the paper wrap</td>
<td><strong>Ongoing process</strong></td>
</tr>
<tr>
<td>Marketing/Production</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each phase for the projects were classified based on the formality in that phase, see **Table 4**. Below it will be laid out why each phase got its classification. The general pattern found is that most projects have informal processes in the phases Initiation and Conceptualisation. The Execution phase is also quite informal but sometimes also adhoc, meaning problems are solved as they occur. No real structure is in place. **Figure 10** provide a description of what the formal and informal processes as well as the adhoc alternative mean.
Table 4: Level of steering in each phase of the projects.

<table>
<thead>
<tr>
<th></th>
<th>Initiation</th>
<th>Conceptualisation</th>
<th>Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming in multiple levels with LED</td>
<td>0</td>
<td>0</td>
<td>×</td>
</tr>
<tr>
<td>LED-Lights in Lane 11</td>
<td>0</td>
<td>0</td>
<td>×</td>
</tr>
<tr>
<td>Product Development</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Cardboard Box</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Pot Sizes</td>
<td>●</td>
<td>●</td>
<td>o</td>
</tr>
<tr>
<td>Restaurant Market</td>
<td>0</td>
<td>0</td>
<td>o</td>
</tr>
<tr>
<td>Paper Wrap for Herbs</td>
<td>0</td>
<td>×</td>
<td>▼</td>
</tr>
</tbody>
</table>

● - Formal Process
○ – Informal Process
× - Adhoc
▼ - Ongoing project

4.1.1 Farming in multiple layers with LED

Svegro uses “traditional greenhouse technique”, meaning only one floor of cultivation and traditional HPS lamps in their whole greenhouse. Using LED-lights instead could allow for farming in multiple layers since LED opposed to the traditional HPS lamps do not make the

Figure 10: The three formality stages for project steering.

○ High Pressure Sodium lamps
products too warm on a short distance. Also, the LED-lights use less energy. See Figure 11 for a picture of the traditional way of cultivating/farming in the foreground and the test of the farming in multiple layers in the background. The test is the first and so far the only test on farming in multiple layers at Svegro.

![Image of vertical farming with LED](image.png)

**Figure 11:** The multiple layers farming innovation.

**Initiation** – The idea to try and use LED came from the emerging new technology available in combination with the need of more space in the production. LED was also considered to be “the future” by the company, therefore they wanted to try it. The use of LED would also fit the company’s vision of being sustainable. Therefore, a decision to take further measures into investigating LED with the goal of increasing the nursing area was taken. The Production manager stated that this project came to be one of the most innovative projects in recent years since they had to develop the idea all by themselves with no previous projects acting as guidance. The idea was to build shelves on top of each other in order to be more space efficient and to use LED as the main source of light.

**Conceptualisation** – A decision had to be taken whether to test LED in the production. It was decided that the LED should be tried out in a small area. Partly because it was a completely new technique and they did not know for sure if it would work or not. The decision to go ahead and try this was mainly based on an urgent need of more space. To use LED is also something that fit into the strategy of the company since it is less energy consuming to use LED than to use HPS lamps.

---

*Where the plants go after they have been seeded*
**Execution** – Since it according to the management was no already existing solution to look at for information regarding implementation, the building process consisted of solving problems as they occurred. According to one of the Cultivation specialists this would not have had to happen since it in fact existed some solutions out on the market. Though, Svegro was not allowed access to the facilities with the solutions due to competitive reasons according to the Production manager.

The goal of this project was to quickly increase the space in the nursery while at the same time try out LED. This was accomplished to some extent. The idea was realised but the solution did not work out as planned for everyone, especially not for the employees working in the production.

No formal evaluation of the project where failures such as this could be brought up was made, as far as most interviewees knew. The learnings were not captured and possible alternatives to the developed “solution” were not investigated into. The Production manager told that if this had been made the experienced problems could have been overcomed. She also told that the reason for not investigating this matter further depended on that the need of a two-floor nursery not was as big as they thought in the beginning. Later in the work on this thesis it was brought forward that there in fact existed an evaluation of the project. But this evaluation had not been communicated outwards since no one had asked for it at that time. The Cultivation manager mentioned that they can be good at making evaluations at times but that they are bad at diffusing them afterwards.

**Additional material** – During the interviews for this thesis the problems in this project were brought up. It concerned communication and the lack of it. It was not communicated why the rebuilding took place and therefore the benefits of it was not understood correctly. At the time there was no established way of communicating when decisions are taken at Svegro.

**Formality** - When studying the project, no formal processes were found. The Initiation phase consisted of thoughts of what could be done. The market was also investigated to see what technique existed but there was no formal process in place. The Conceptualisation phase did not either contain it. Some structure existed but it was not formal. The Execution phase differed from the two first phases since it lacked any kind of structure. The outcome did not become as planned and the project was to some extent dropped. Even though a report had been written about the project afterwards it was not widely known throughout the organisation. The stage was characterised by adhoc solutions, no structure on what had to be done existed.

**4.1.2 LED Lights in Lane 11**

Svegro’s red-green lettuce, see Figure 12, need a special wave-length in order to get its red colour during the winter time. This wave-length is not possible to get from conventional HPS lamps. But it is possible to get from LED lights.
Initiation – The idea to try out LED lights in lane 11 came from a necessary need to get the correct product specification i.e. the red colour on the lettuce. The emerging LED technology in combination with this turned into the idea to use LED as the source of the special wavelength with the goal of achieving the right product specifications.

Conceptualisation – A decision was taken to place LED lights in addition to the ordinary lights in lane 11 in order for the red-green lettuce to grow there. Specifications regarding what lights to use were also decided upon.

Execution – Knowledge had to be gathered on how the lights were to be installed. This was considered to be quite an easy step since there were no special configurations concerning the installation. After the LED lights had been installed the red-green lettuce could grow and get the proper characteristics in lane 11. After an amount of time it was decided to move the red-green lettuce to a neighbouring lane since lane 11 had to be used for another lettuce assortment. It was also decided that the LED lights should remain at lane 11. As a coincident an idea to try out LED lights on another lettuce arose since the LED lights remained. The goal was to see if the lettuce could be even better if it grew under LED. This was tested but the result did not become as planned and the LED lights stopped being used.

The usage of LED lights in lane 11 was not evaluated. The Cultivation manager stated that the LED lights were left hanging with no plan on how to use them. The reason for this was that there were a lack of time and opinions on what to prioritise. She also brought forward that if the project had been evaluated they might have gotten it to work better since other wave-lengths would have been tried out etcetera. The non-existent evaluation led to longer investigations in later projects concerning LED since the learnings from this project had not been captured.

Formality – The initiation and conceptualisation phase are characterised by informal processes. It was quite clear what were to be done and the goal were defined early but at the same time no formality was in place. The execution phase was adhoc since definitions of what had to be
done and who would do it were non-existent. No real evaluations took place and the project ended up as an experiment which was later left to hang.

4.1.3 Product Development

Svegro launches around 10 new products each year and new products include new type of herbs, lettuce and potatoes. This is a number that has increased from the past. The Marketing and Innovation manager stated that Svegro, among many reasons, launch many new products in order to increase their brand awareness and get better shelf spots in the stores. Even though only a few of the launched products will remain it is important for the brand and the renewal of the company to keep having new product launches. New product development is the only innovation process that has a stated structure which Svegro follows. The innovation process for product development is presented (in Swedish) in a flow chart in Appendix 3.

Initiation – Ideas often come from how to solve strategic challenges and insights on the business or market. Challenges are for example new trends, increasing competition, new consumer preferences, branding and loss in sales. The initiative and analysis come from the Marketing and Innovation manager and the ideas and solutions are created with the management team and external partners.

Conceptualisation – Products for which a decision has been taken to go into development get a description, a goal and a purpose. The product is later gone through with the management team which are the ones taking the decision whether the product should go into a pre-study phase. Parts of this is also gone through with the Cultivation group. The pre-study consists of deciding on packaging and product durability. Profitability goal, pricing, prognosis, information to customers is also regarded.

Execution – After an acceptance decision from the management team the preparations for full scale production and launch start. The sales department start to process the customers and make them aware of the new product. As a final stage the product is launched and later the Marketing and Innovation manager follows up how the products are selling, how the quality of the product is etcetera.

Formality - The product development phase was characterised by a formal process. A clearly defined process was followed where all aspect of what had to be done were defined. Though, aspects which was brought forward was that this formal process not were communicated outward to everyone involved.

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1 Svegro perform B2B sales
4.1.4 Cardboard Boxes for Potatoes

Svegro created a small cardboard box for potatoes that was radical and completely new for the market which usually sees bags of paper or plastic as packaging for potatoes. The packaging has won the prestigious award “Guldägget” for strategic design for example. See Figure 13 for a picture of the innovative packages.

![Cardboard Boxes for Potatoes](image)

*Figure 13: Svegro's award winning potato packages.*

Initiation – The Marketing and Innovation manager got the idea in cooperation with the packaging unit, and exhibition in Berlin and external partners of creating a box in cardboard paper for some of the potatoes varieties with the goal of resemblance to a root cellar (where potatoes are stored after harvest). The idea also had its base in a need of being sustainable since cardboard is more environmentally friendly than plastic but also that it should feel more exclusive since the potatoes belong to a premium assortment. A project group was created with internal and external people from among other the sale, production and packaging department. The Marketing and Innovation manager had a start-up meeting that included introduction, background, analysis and strategy, purpose and a timeline for the project.

Conceptualisation – Through meetings with external partners, as a design agency, and packaging companies it was decided exactly how the box should be designed and manufactured. Test were performed in order to make specifications on the behaviour of the box in environments. The Marketing and Innovation manager documented the tests in an Excel sheet which was available for others to see.

Execution – As the marketing and operations plans proceeded it was decided to sell the new potato box at stores with a target group for premium products. The interest of the concept was high from retailers, end customers and potato farmers as it was an innovative and strong product in a difficult and conservative market. After two years of trying to get distribution in the retail

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*“The golden egg”* - The oldest and biggest communication award in Sweden (Sverige Kommunikationsbyråer, 2018).
chains the potato box did not do good with regards to sales without costly activities. The Marketing and Innovation manager stated that a challenge is the consumer behaviour, you have to be patient when reaching end customers with new concepts. It can take several years to brake thorough with launches like this. In other means, Svegro has to wait for the market to be ready for their product which is a fact they are aware of. After an evaluation of the concept, Svegro will make a change in the packaging to a paper bag instead of a box. The re-launch will be fall 2018.

**Formality** – All phases in this project have had a formal character. The included departments had regularly meetings until launch date of the box. The Marketing and Innovation manager knew what she had to do to achieve the desired results.

### 4.1.5 Pot Sizes

As a step in making the production more efficient Svegro reduced the size of the coriander pots. That meant less input products such as peat and that more finished products could be packed in the boxes going to the stores, and fewer transportations, see Figure 14. The reduction of pot sizes also meant that the possible places for coriander to grow enlarged since not all spaces were adjusted for the larger pots.

![Figure 14: The six-pot-brim on the left and the nine-pot-brim to the right.](image)

**Initiation** – The Cultivation steering group, consisting of among others the Production and Cultivation managers, initiated the project since they saw a need for a more efficient production. They could continue the first process phase without checking with the management team.

**Conceptualisation** – As it was decided to go on with the project from the first step, a test was performed to see if the herbs could grow in the smaller pots and still have the same quality. Before realising the project to a greater extent, the Cultivation group also made calculations on how much less transportation the reduction of pot sizes would mean. This new information was brought by the Production manager to the management team in order for them to make a
decision whether the project could continue even further. The management team was positive and let the project proceed.

**Execution** – The project was successful in means that the production became more efficient but not in the sense that it reduced the number of transportations. The reason for not reducing the number of transportations was, according to the Marketing and Innovation manager, that Svegro’s customers did not want to buy the herbs in the new constellation. Furthermore, no evaluation has been performed. When asked about it, the Cultivation manager wished they would be prouder and celebrate all the good things they do. She also highlighted that this project is a very evident example where an evaluation has not been performed even though it would have been needed since they still have not solved one of the initial goals to reduce the number of transportations.

**Formality** – The decision making in this project was formal since it was known what had to be done. Structure existed due to the clear goal that needed to be achieved. The execution phase takes an informal character since it was dropped why the project did not succeed to a full extent. It was not evaluated why the customers did not want to buy the coriander in the new brim. The project did not complete this step with the same formality which existed in the two first steps.

### 4.1.6 Restaurant Market

Restaurants cannot bring soil into their kitchens due to health laws. Since all of Svegro’s herbs and lettuce grow in soil in small pots, restaurants have not been an applicable market. Svegro wanted to enter that market and in order to do so they had to cut the products from the soil when packing. The initial incentive for doing this was that the overproduction of lettuce and herbs could be cut and sold to restaurants. This project has been conducted before with no major success and there is no old documentation to consider.

**Initiation** – The idea for this innovation came from the Production manager and the CEO. The idea was to be able to use the products classified as waste and sell it in another form than the traditional pot with soil in it.

**Conceptualisation** – The idea was transformed into an innovation when it was decided to cut the herbs/lettuce and package it in plastic containers. The choice of packaging fell on the plastic containers since they were in storage from the previous trial, see Figure 15. Other types of packages were looked into, as paper packages, but a problem is that customers want to see the product resulting that it has to be plastic in at least the lid of the package. Cutting the herbs was a new way of working within the production. One of the sales employees got the task of reaching out to potential customers and see if they were interested, which many enough seemed to be. Sales started during this development phase to launch the product fast and test the process.
Execution – There existed practical issues concerning the execution of this initiative which is that it requires a great deal of manual work and the production is not built for it. There are thoughts on how to solve the issue with the production and lack of space. The Production manager wants to invest in a new packaging station which automatize a part of the packaging process.

Additional material – This innovation project had a fast process. The goal was to have a ready-made product within six weeks. In order to accomplish this a quick development process had to be applied. They did not want to follow a formal process since they considered that to be too time consuming. Also, the Production manager said she enjoyed fast processes where results are being achieved fast. It was decided to have short meetings three times a week and that the meetings only should be 15 minutes. The meetings were timed and when the clock rang it had to end regardless if everyone had said their part. After the meetings, the whiteboard that had been used was photographed and uploaded in a documenting system.

During informal evaluations of this project the downside of having this quick process was discussed. It was concluded that solutions were “adhoc” and would not always work in the long run. Some employees and their needs and wants were also lost along the way; it became unclear of “who was going to do what” which led to inefficiencies. Regarding the plastic containers, when the old ones were used, similar plastic containers were ordered.

Formality - All phases in the project had an informal character. A process which contained a structure on how the project were to be developed i.e. how meetings etcetera was to be conducted were followed.
4.1.7 Paper Packaging for Herbs

Svegro’s lettuce and herbs grow in soil in small plastic pots and before distribution they each get put in a thin plastic wrap. An innovation which soon will be launched is a paper wrap for some of the products in the premium assortment, see Figure 16.

![Figure 16: Svegro’s paper packaging.](image)

Initiation – The Marketing and Innovation manager wanted to reduce the use of plastic and Svegro to differentiate themselves from their competitors while at the same keep up with sustainability trends on the market. She had a vision that buying one of Svegro’s products in a paper wrap rather than a plastic would give the feeling that you have been at the market buying a bundle of herbs.

Conceptualisation – The Marketing and Innovation manager contacted different packaging companies and got after a rather long time a company that presented a product that after tests was shown to suits the needs of Svegro. At this stage a decision was also taken on which products to place in the paper wraps. No formal documentation during this phase were conducted, since the project was considered to not be very complex. Although it is agreed that they should be better at documenting.

Execution – This is an ongoing process. A number of paper wraps has been ordered and the products will be in stores in a few weeks. A formal evaluation will be held in a few months, where sales compared to the normal way of packaging, production efficiency and cost, and brand awareness increase are regarded.

Formality - This project was ongoing during the time this thesis was written therefore the execution phase were not defined as adhoc/informal/formal. The initiation phase was informal since it was known what was going on and it had some structure. The conceptualisation phase took another character since no way of following through with the project were found at first. This phase of the project came to be adhoc since the project was not shut down, but it was neither actively worked on.
4.2 Cross-Case Analysis

The seven cases have been explored cross case within the ICE framework. Formality and sustainability were especially regarded. Additional empirical material not presented in the seven cases was also added.

Initiation

The ideas for the innovations came from different kinds of needs or from new technology. The needs could be of different character such as the need of being more efficient or the need of giving a more environmentally sustainable brand impression. The CEO stated that the ideas should be brought in from all different departments. Despite this, most of the ideas came from employees in management functions. Regarding the people in the production, that for example pack the products, the Production manager said that it is hard to achieve an open climate where they come up with ideas themselves.

In the process of coming up with ideas there is much to be done. One activity mentioned by the CEO is to have a “hackathon” where all participants can brainstorm and develop ideas. He had the opinion that if the first phase of the innovation process is characterised by creativity the following phases can be more formal.

Formality was not present to a great extent in this phase. Single persons or teams developed ideas on their own. One employee in the Cultivation group said that they might get an innovation project from the management team or make one up by themselves. When the project is conducted they just take on tasks within it. No formal way of dividing the tasks exist. Each person in the group has the possibility to come and say, “I can do that”. Although no formal dividing of tasks take place it seems to work fine and not be a problem.

<table>
<thead>
<tr>
<th>Initiation Summary</th>
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<tbody>
<tr>
<td>o Ideas from efficiency or improving brand needs</td>
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<tr>
<td>o Almost all ideas from management</td>
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<tr>
<td>o Informal phase</td>
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Conceptualisation

The innovations having a formal process at this stage were the product development, pot size and cardboard box projects. The other projects kept having rather informal processes, as in the initiation phase.

Documentation during this phase was rarely done and when it was done it seemed to be no consistency of the way of documenting. Some used Excel, some used OneNote, some even had created their own programme for the matter and some did it orally. Most employees said they did not document findings even though they think they should and that it probably depends on the extra time it would take.
Regarding the alignment with the sustainability vision much was based on gut feeling rather than facts. The gut feeling seems to be rather good most times as in the case of when the Production manager chose a paper packaging machine instead of a plastic packaging machine without giving it too much thought even though it was much more expensive. Although, larger projects with high investments have to go through the board and is therefore more thoroughly investigated.

<table>
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<tr>
<th>Conceptualisation Summary</th>
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<tbody>
<tr>
<td>Not much documentation</td>
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<tr>
<td>Informal phase where the gut feeling is used</td>
</tr>
<tr>
<td>Aspects get lost due to fast or informal processes</td>
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<tr>
<td>Lack of communication</td>
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**Execution**

When most innovation projects were done they did not get evaluated in a formal way unless large investments were involved. Even when a lot have been accomplished and success have been achieved, it has not been captured and transformed into marketing material or learnings or even celebrated. When discussing the pot size project the Cultivation manager realised that from the execution of the project when everything worked well they have not evaluated it nor celebrated it, which she wished they would. Though, the CEO stated that the marketing department has a good evaluation process. New products are being evaluated with regards to sales versus goals and to profitability.

Most projects get completed but afterwards it is almost as they get lost or forgotten. Several projects that did not finish might just be left, for example the LED lights in lane 11. The LED lights are not used but they keep hanging there.

When asked about documentation it was found that when a decision is being taken it is not documented. The CEO told that this was done orally and not written down i.e. it cannot be traced back to why a certain decision has been taken. Furthermore, it was highlighted that they felt that they were bad at communicating the decision being taken concerning the employees in production.

<table>
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<th>Execution Summary</th>
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<td>Not much evaluation</td>
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<td>Not much appraisal</td>
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Summary Chapter 4
This chapter has presented findings and analyses of the innovation projects studied at Svegro. As a start a table was created that classified the projects into the ICE framework. A table concerning the formality in each phase was also presented. The following projects were described and analysed within: *Farming in multiple layers with LED*, cultivation in in multiple levels in a part of the greenhouse. *Product Development*, Svegro constantly develops new products to stay relevant. *Cardboard Box*, the box for potatoes which resembles a root cellar. *Pot Sizes*, the sizes of the coriander pots were changed to have a more efficient production and transportation. *Restaurant market*, products that were to be thrown get cut and sold to restaurants. *Paper Wrap for herbs*, Svegro’s premium assortment of herbs will get a paper wrap around them instead of plastic. At last the cases were explored cross case i.e. similarities between the phases was searched for.
5 Discussion

This chapter aims to present a discussion based on the theory and the analysis of the empirical material. The text is separated with headlines in order for it to be easier to read.

In the beginning of the literature chapter it was presented what role an innovation system has. We believe that if formal innovation process models, part of the innovation system, is applied to medium sized companies the role that the innovation system has will be strengthened. The strengthened objectives are in this case the following:

- Establishes ways to capture learnings from innovation and make the information available to everyone. Davila, Epstein and Shelton (2006) highlights that learning increases the understanding of the innovation process itself and that it can enhance competitive advantage.

- Align the objectives of various constituencies. Everyone within the organisation have to understand the company strategy and how it will affect the daily work. As an organisation grows the management cannot rely on informal interactions to achieve this.

For small firms the outcome would probably not be the same since one of the small firms’ competitive advantages are that they are not so bureaucratic. Large firms on the other hand could gain from this approach since it could mean that they get better control of how they innovate.

Svegro has the perquisites for being innovative and come up with new innovations. The Government Office of Sweden (2017) stated that smaller companies have a higher probability to discover the next big innovation and Laforet (2008) implicitly stated that little bureaucracy favours creativity and innovation. Svegro due to their medium size should find themselves in a position where there are no major obstacles on the way of being innovative. Their size gives them the opportunity of discovering and realising innovations. They are not too bureaucratic which can favour creativity while they also have resources to conduct larger innovation projects. In the work on this thesis we came to the conclusion that Svegro could take the best of two worlds when conducting their innovation work. Although, negative aspects of their position exist. It can also be seen as they have reached a “dead end” where they are stuck and cannot go anywhere. This since they do not have the resources of a big firm, also mentioned by Bos-Brouwers (2009), and not the complete flexibility of a smaller firm. We believe that the success in this area could be a question of one’s state of mind. If believing that you have a unique opportunity at hand you will have a greater probability of succeeding. Svegro do have a positive attitude towards their position but also towards what they do but they do not know how to communicate all the things they are proud of. In the case of Svegro starting to evaluate projects and capture learnings they have to develop a strategy on how to transform the insight into marketing material.
5.1 Formality

It is vital for future growth to formalize the coordination and control of organizational activities (Davila 2005). We translate this into that Svegro should be more formal in general. Though, they should be careful. It is not possible to from one day to another change and apply formality on all processes. Formality should be applied slowly so the organization can adjust. And it should neither be applied everywhere because as previously mentioned bureaucracy does not favour creativity and innovation. It is a balance to get right. Svegro also expressed that they do not think formality is suitable in processes which include staff from production who is not used to participating in formal meetings. Projects in which they are included could take the character of having short but effective meetings, such as in the case of the restaurant market. This shows that Svegro is aware of how their organisation work and that they care. We believe this is an important aspect when new ways of working are to be implemented.

Formal processes can help in keeping control of sustainability aspects as previously implicated. But we also believe it can help in capturing other aspects such as seeing to what do not function properly in a project. Formality could for example help in structuring projects and leaving no aspects to chance. This would allow for a more efficient use of resources since all roles are defined i.e. no one will get away with doing nothing. But also, no “double work” will have to be made since a structure exist with the goal of keeping track of such things. This is not any experienced problem at Svegro today but even if this is the case they should be careful. We believe Svegro to some extent are dependent on certain individuals and their knowledge. If these individuals were to quit the situation where these aspects are not a problem could change. We believe Svegro and other companies in the same situation should work proactively in this matter.

5.2 Sustainability

As proposed by Tidd and Bessant (2013) projects need to fit the company’s strategy and should lay in the area of the company’s expertise. In most cases it did for Svegro. For example, the LED project in the nursery is a way of becoming more sustainable, a fit to the company’s strategy and the lights are a big part of the production process that Svegro works with every day meaning it is developing Svegro’s expertise.

At Svegro it is the management or the board who decides which projects gets to be developed. Even though no explicit decision is being taken whether a project fits the strategy it is always in the back of their minds. The Production manager and the CEO stated that they often take decisions based on their gut feeling. An example the Production manager brought up was that when Svegro had to invest in a new packaging machine for potatoes, as already mentioned, she only considered machines that used paper. She actively took a decision to not regard plastic machines since she knew the board would not approve on that decision, even though it would be cheaper, since it did not fit the organisation’s sustainability vision. For Svegro this informal approach seems to work at the moment but we believe it could be more effective and secure in the sense that nothing will be forgotten. For large firms this informal approach would probably
not function as well as for Svegro since more aspect have to be in mind and projects are conducted more often. Then the management have no possibility of keeping control of all aspects concerning the strategy when taking decisions. For small firms the informal approach probably would work fine.

5.3 The ICE Framework

*The discussion on the framework is divided into the separate phases Initiation, Conceptualisation and Execution.*

5.3.1 Initiation

As Frankenberger *et al.* (2013) stated, the first phase is about identifying if there is a need or not to initiate an innovation project. This have been accomplished by Svegro to some extent. All projects being studied had some kind of purpose or goal in the beginning i.e. they knew that what they were about to do was needed. This step was characterized by informality, no fixed structure for capturing the needs were in place. This works for Svegro since they are good at making sure unnecessary projects not become developed. We believe this depends on that they cannot afford developing all projects. So, we cannot state that the situation would have been the same for large companies which have the resources and do not have to be as restrictive. Although the large firms might also want to use their resources efficiently.

In the model developed by Salerno *et al.* (2015) it is proposed that innovation projects differ in the first phase as the ideas come from different parties. In the case for Svegro the ideas only come from the company itself. Furthermore, it can be concluded that ideas for innovations come from various sources but at the same time mostly from people in a management position. Not having ideas from employees in the production might imply that Svegro is lacking a way of capturing those ideas. Furthermore, this might have to do with their size. They are not small enough to let everyone be involved in every process but not big enough to have established structures on how to capture innovative ideas from all employees. Since they are at this stage a formal way of capturing ideas might need to be applied. If the case is that other people do not come up with ideas a reason for it could be that there exist language barriers. Many people working in the production do not have Swedish, the official company language, as their native tongue and might therefore not feel confident enough to bring forward their thoughts. We believe this example shows that an informal approach to this do not function very well at Svegro.

The sub chapter Front-End of Innovation tells us that sustainability, if it is to be a part of a project, needs to enter the process in the beginning. Herstatt and Verworn (2001) and Bocken *et al.* (2014) states that only minor changes can be made as the project have proceeded from the initial stage. From this fact the conclusion that formal processes are needed in the beginning of a project can be drawn. The projects studied at Svegro also show this. All projects in where
sustainability have been an important aspect it has been part of the initial thoughts. Though, the thoughts have not been structured and the process have been quite informal and adhoc.

5.3.2 Conceptualisation

Cooper (1990) highlights the importance of a detailed investigation and that the project has to be defined clearly. We believe that in order to do this sustaining documentation is of high importance. One need to be able to go back and see what have been previously decided. We also believe that it is impossible to know all information by heart. If connecting this to ensuring the firms sustainability vision it is possible to state that it will not be possible (or be very difficult) to do it if no documentation is being made. The project concerning the restaurant market is a good example of this. Many years ago, the exact same project had been performed but no documentations were made and therefore they could not go back and see what previously had been done. The informal approach towards documentation does not favour Svegro, information gained when conducting a project gets forgotten and wasted.

If formal processes had been applied the restaurant market project might have been developed in a more sustainable manner. As it was now the quick process only allowed for solving issues as they occurred i.e. the most sustainable solution could not always be chosen. For example, the plastic packaging used was the one available in storage. If the process had been more formal and more time had been spent on stages such as choosing an appropriate packaging which fits the company vision of being sustainable the project could have been more successful seeing to sustainability. In the case of formal processes, a paper packaging with a “plastic” window could have been developed, a packaging that would have been another innovation for the company.

5.3.3 Execution

Formality in the end of a project allows for a more structured and secure, in the sense that it will be done, evaluation and capturing of value. In this study we saw the potential that if formality had been applied in the end of the projects it would have been possible to capture in what way the project had been sustainable and later use that insight for marketing purposes. An aspect which we saw was missing in almost all projects. Another outcome we found were that evaluations could lead to that the organisation learn from its experiences i.e. continuous improvement. This aspect we believe firms of all sizes would gain from. For example, the smaller company could in a quicker way gain and keep knowledge. Since this is not a creative phase but rather something that just has to be done no aspects would be inhibited.

Projects in which there lie extra potential of having formal evaluations are: Farming in multiple levels with LED, cardboard box for potatoes, pot sizes and restaurant market. All these projects contain aspects of a sustainable character which could be used as a competitive advantage. It will shortly be described how below:
Farming in multiple levels with LED – New and innovative technique were involved in the project and entailed that the production could be energy and space efficient. Being energy and space efficient contribute to the company’s vision of being sustainable.

Cardboard box for potatoes – An exclusive cardboard box on a market that mostly sees plastic bags. The cardboard box therefore is one of the most sustainable packaging alternatives when buying potatoes.

Pot sizes – The change of pot sizes meant that the production space could be used more efficiently and that emissions could be reduced since fewer transportations have to be made. Both features lead to environmental sustainability.

Restaurant market – The project included using overproduced products which means that the number of products thrown away reduces. The project is environmentally sustainable since it means using resources available to a greater extent.

If capturing in what ways Svegro have been innovative the customer relationships can be improved as proposed by (Davila, Epstein and Shelton, 2006). If adding sustainability to this equation, an aspect which the end customer might value, Svegro have even more to gain from being innovative and showing it outwards.

5.4 Communication

As Davila, Epstein and Shelton (2006) stated, alignment throughout the organization is needed if success is to be achieved. In the case for Svegro this might become an issue since the vision of being sustainable has not pervaded the organization fully. One Cultivation specialist said that they don’t think too much on sustainability in their daily work. We came to the conclusion, in conjunction with other observations, that the sustainability vision is mostly established within the management. We believe that it is them who possess the most knowledge and they have it in their thoughts in every work-related activity they perform. This could be the result of bad internal communication, an issue we keep coming back to. Bad ways of communicating internally is a problem they themselves have acknowledged. For Svegro to take their success to the next level the issue of letting sustainability pervade the whole organization has to be addressed.

Communication problems in general are quite common at Svegro. For example, in the farming in multiple levels project it was not communicated why already existing solution not could be used or studied. If this would have been communicated to all involved employees it would have saved many from being frustrated about the project. Though, no one is to be blamed for this. Since there exist no established way of sharing insight like this it is hard to bring it forward. This is something that Svegro need to improve.
Also, if there is no transparency in the company i.e. what is happening is not being shared, it is hard for some to share their knowledge if they do not know it is needed. If the information on the projects had been shared the common attitude towards the projects might have been better. Then everyone might have the feeling of being useful since they get to share their knowledge and also feel that they really are a part of the company when knowing more of what is going on. At the same time there are downsides of being too open with what is going on as brought up in the project on product development. When being to open there is a risk that confidential material comes out, which is not wanted since competitors might steal ideas and customer might become disappointed if the things they hear do not become reality.

In case of changing internal processes Svegro have not always involved the user i.e. the staff in production, another problem concerned with communication. Tidd and Bessant (2013) acknowledge the understanding of the needs of the user and the involvement in the innovation process as a key to success in the Execution phase. The way Svegro have operated until today have not been a failure. But it has the potential to be even better if aspects such as this were to be considered to a greater extent than it is today.

5.5 Personalisation of knowledge
The Marketing and Innovation manager sometimes collaborates with external partners firms when developing new products. But when decisions are being taken it is she who has the final say and makes the decision. We got the impressions that she has a vision in her head that she follows. This approach seems to work fine but we find downsides with it as well as in the case with the Production manager. All knowledge concerning how the organisation operates and what aspects decisions are taken on should be in line with what the organisation stands for, but it gets tied up on specific persons. This personalisation of knowledge gets even stronger we believe since not much documentation is being made throughout the projects. During conversations about specific projects with the Cultivation manager had to call various persons in order to get the right information. We believe that this is a good example of when a codification of knowledge i.e. documentation during projects would have been proven useful. One has to be able to go back and find data for previous projects without relying on specific people.
6 Conclusion

This chapter presents the conclusion for this thesis. The research question will be answered by first answering the sub research questions. Managerial implications will be provided and lastly the limitations with this study will be raised and implications for further research will be given.

- In what kind of innovation projects are formal steering support needed for medium sized companies?

Medium sized companies are in a position where they, due to their size, can to some extent choose when to apply formal steering models. They have opportunity to act as a small firm in being flexible and not so formal while they at the same need support which is often seen in big companies. The support should be given and applied on the project depending on the project scope and what needs to be achieved. For medium sized companies’ formality should be applied to a greater extent if the project is to accomplish something fundamental. Meaning that if high stakes are involved and great expectations lie on the project. Except from steering support, there was an approach in this study on how to make sure that there is a sustainability focus in all innovation processes. The conclusion is that in innovation projects where sustainability wants to be achieved formality need to be applied if they want to optimise the chance that the project is to be a success.

- How can the fulfilment of sustainability be ensured when conducting innovation projects?

The fulfilment of sustainability can be ensured through having formal processes in the beginning - the initiation, and in the end - the execution, of the innovation process. In the beginning it is important of to specify what the project is to be about, goals, how it should be done etcetera. In the end it is of great importance to capture what happened during the project. It should be documented what has been a success and what has been a failure. When knowing what was successful it is possible to transform the insight into material which can be used as a marketing tool. Another important factor regarding sustainability is the management. They need to have clear goals, offer support and be committed.

Not to forget, if sustainability is in the business strategy and in everyone’s mind, informal projects can be successful. Though in these cases the success gets dependant on the persons being involved and how committed they are to the organisation. Therefore, the conclusion still is to have formal processes in the beginning and in the end of the innovation process.
**Research Question:** How does the need of ensuring the firm’s sustainability vision and use it as a marketing advantage affect the need of formal steering support in innovation projects for medium sized enterprises?

To keep track of sustainability, formality is required in parts of the innovation process phases. In this thesis it is concluded that it is in the beginning and end that formality is needed the most in order to ensure sustainability. Sustainability is something that needs to pervade the whole organisation if a firm want to use it as a marketing advantage. It cannot enter as a factor late in a project if one wants to make sure it is to be a success since it is such a fundamentally changing concept. As previously stated, only minor changes can be accepted in the later parts of a project.

A medium sized company have the possibility to be formal in some parts and still have the flexibility of a small firm in other parts. Therefore, medium sized companies are in a position where formality is not demanded in all phases of the innovation process. The need of formal steering support is connected to the need of ensuring the firm’s sustainability vision in order to be able to use it as a marketing advantage in a medium sized firm.

### 6.1 Managerial Implications

For practitioners this thesis contributes with knowledge and insights on when to apply formal innovation processes in a medium sized company, especially if sustainability wants to be achieved and used a marketing advantage. Managers in medium sized companies need to realise their unique position where they have the possibility of combining the “best of two worlds”. Realising that in combination with gaining knowledge on formal processes could mean future success.

The conclusion drawn in this thesis is that formality should be applied in the beginning and in the end of a project if sustainability wants to be achieved and used as a marketing advantage. For practitioners this means that formal process models, if applied in the beginning, have the possibility of ensuring that sustainability is a part of the project all from the beginning. If formal process models are applied in the end the chance of capturing what have been accomplished and use it as marketing material gets higher.

Practitioners should especially bear in mind that sustainability is a wide concept with characteristics which mean that it cannot just be “thrown in” into a project. It has to pervade the project from the beginning to the end.

### 6.2 Limitations and Implications for Further Research

In order to draw conclusions generalisable to a greater extent for medium sized companies, more companies would need to be studied. Preferably companies operating within different industries. Since the case company in this thesis operates in an industry which can be classified as “low tech” it would be interesting to study companies in a “high tech” industry as well.
The interviews conducted for the purpose of this study have solely been with employees in a management or employees with certain responsibilities and not with employees within production. Due to limitations in time this was not possible but it would be interesting in future research to investigate their views on formality in projects.

In this investigation the focus has mainly been on the environmental aspect of sustainability. Since this is only a part of the whole sustainability concept further investigation with focus on the economic and social aspects is also sought for.
References


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Appendix

Appendix 1

The organisational structure at Svegro
Appendix 2

Interview guideline for interviews at Svegro

I. General information on the interviewee
Information about the interviewee: role and background

II. Innovation Projects
What innovation projects have you been involved in?
What motivated those innovation projects? (Initiated by someone at the actual department, other part of company like the management, externally...)
In those projects, were there an established process that was followed, or was it more informal?
How were decision taken? (Even though doing informal processes, decisions have to be made)
Are the innovation projects evaluated when finished? How?

III. Challenges
Can you give examples of failed projects? Why did they fail?
What could improve regarding innovation processes and decision making?

IX. Future
How would you like it to be in the future, regarding innovation processes and decision making?

X. Sustainability
In what ways are sustainability incorporated in innovation projects? When in the processes, in the initial thoughts or in the end?

XI. Other
Other thoughts/ things to add?
Appendix 3

The product development process in Swedish

![Diagram of the product development process in Swedish](image-url)