Reducing the financial gap

*How to improve the relationship between entrepreneurs and investors*

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Abstract

Title: Reducing the financial gap – how to improve the relationship between entrepreneurs and investors

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Purpose: The purpose of the thesis is to better understand the early stage investment process, and with this deeper understanding provide Ideon Innovation with recommendations of how to improve the interactions between investors and entrepreneurs.

Methodology: The thesis has been conducted with a mixture between a systems approach and an actors approach. An abductive research method has been chosen, containing mainly qualitative studies.

Literature was initially reviewed in order to create a theoretical framework, which together with an analysis of empirical findings from surveys and interviews with entrepreneurs and investors, resulted in recommendations of measures Ideon Innovation can take to improve the interactions between investors and entrepreneurs.

Theoretical framework: An extensive theoretical framework has been developed, containing definitions and characteristics of the three main actors in the studied system; entrepreneurs, investors and the incubator. Furthermore, relevant theories regarding investment processes and financing have been reviewed.

Empirics: Data has been gathered from the incubator, investors and entrepreneurs. A mapping of current activities at the incubator was made through interviews with the management, followed by surveys sent to a large population of investors and entrepreneurs. This initial data collection was later complemented with in-depth interviews with six investors and five entrepreneurs.

Conclusion: The investment processes in early-stage companies are complex and heterogenous, each and every investment being almost unique. All explanations found in this thesis are derived from the same fundamental problem: the investors are risk-averse and an investment in an early-stage company involves high risk. Another vital issue is the presence of asymmetric information between the two
actors, which means that the investor does not know with which objective the entrepreneur uses the investor’s money. These problems lead to a financial gap, where it is difficult for early-stage companies to raise capital from external investors.

The authors have through an analysis of previous research and the data collected from both investors and entrepreneurs identified eight measures Ideon Innovation can take to reduce the financial gap and improve the interactions between investors and entrepreneurs. The measures include e.g. making the companies more investment-ready, increasing their sales-focus and arranging informal events where investors and entrepreneurs can meet.

**Key words:** The financial gap, entrepreneur, business angels, venture capital-firms

**Key word explanations**

**Alumni-company:** In this thesis defined as a company, which has previously been a part of the incubation process, but has made an “exit” from the incubator.

**Business angel:** Private investor investing his/her own money directly in an unquoted company in which there is no family connection.

**Business incubator:** An organization providing services designed to facilitate new venture growth.

**Entrepreneur:** Is used to describe a young company. It is not an important matter whether the start-up has one or more employees.

**Incubatee:** A start-up/entrepreneur currently operating in an incubator.

**Risk capital:** Financial capital provided to early-stage growth companies, which are characterized by high risk and a large potential.

**The innovation system:** A collective term used to describe the different actors working to create and maintain the innovative environment in Lund.

**Venture capital:** See risk capital; the two expressions are used interchangeably throughout the thesis.

**Venture capital-firm:** A venture capital-firm is a limited partnership that specializes in raising money to invest in the private equity of young firms.
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1 Introduction

1.1 Background

Ideon Innovation is a business incubator situated right in the heart of the innovation system in a city known for its history of innovation, Lund. A business incubator offers office space to early-stage companies in an innovative environment, as well as business support. Raising external capital is of great importance to an early-stage company, as it is the most common way of financing expansion, and therefore support and advice regarding financing options becomes one of the main issues of the business support.

Lund and its science park Ideon have an astonishing reputation of being an innovative environment, with several successful start-ups on its record. For example Scalado, a world-leading provider of imaging technologies, applications and services to the mobile industry, which has attracted several venture capital-firms’ capital, was during its early years a part of the incubator Ideon Innovation. Other examples of Lund and its surroundings’ attractiveness are Polar Rose and TAT, who were both bought by North-American giants Apple and Research In Motion.

However, during a time of economic downturn in the world economy, the capital flees to safe investments such as Swedish government bonds and global companies traded on the stock exchange, far away from the entrepreneurs at Ideon Innovation. When looking at the venture investments-figures from the Swedish Venture Capital Association, the level of investments is now reaching very low figures. The trend of declining investments in the early-stages of product development has been almost constant since the financial crisis of 2008 (figure 1), making the Swedish Minister of Enterprises Maud Olofsson announcing new rules regarding early-stage investments in the fall of 2011.¹

¹ Olofsson 2011-09-17
With the knowledge of the events that have transpired in the venture capital market, the authors wanted to learn more about what the investment process in early stages look like in the Skåne area. A key actor in the innovation system in Lund is Ideon Innovation, which was approached with the idea of this master thesis. Although it was early clear that the subject is difficult to generalize about as every single company and investment process is nearly unique, it was decided to go ahead with the thesis because of the level of importance the subject poses to the innovation system.

1.2 Problem discussion

In a climate of economic downturn which has lead to a declining venture capital market, the issue of raising capital does not become less important, but more. As financing options to an entrepreneur are limited, less available capital means that the effort in establishing contact with the right investor must be increased. In a changing climate it is possible that investors previously interested in companies in early stages, such as the companies at Ideon Innovation, no longer want to take on that amount of risk and that Ideon Innovation must adapt in terms of contacts, routines and views of investors.

Based on this problem discussion, the authors started the thesis with four research questions:

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Figure 1: Venture investments in Sweden, figures from quarterly reports from SVCA

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2 Svenska Riskkapitalföreningen <www.svca.se> 2012-01-10
3 Paul et al. (2007)
1. How is Ideon Innovation currently working with financing issues regarding its incubatees?

2. What are the current general views on the investment process from the different actors?
   - From the entrepreneurs?
   - From the investors?
   - Are there any discrepancies in the different views of the process?

3. Are there any lessons to be learned from companies, which have left the incubator?
   - From companies which have been successful in raising capital?
   - From companies which have not been successful in raising capital?

4. With help from the findings in previous research questions, what are the potential means for Ideon Innovation or other incubators to reduce the gap between investors and entrepreneurs at the early stages of business development?

1.3 Purpose
The purpose of this thesis is to better understand the early stage investment process, and with this deeper understanding provide Ideon Innovation with recommendations of how to improve the interactions between investors and entrepreneurs.

1.4 Delimitations and focus areas
A business Incubator offers a wide spectrum of services and support to its incubatees, as depicted in figure 2. The main focus of this thesis will be on the support having to do with financing, however as the other types of support have the ability to affect the ways of the financial support indirectly, some of these will be briefly discussed in the thesis as well.
Financing in itself is a very broad subject, and when taking a closer look at the core of the problem, which has its roots in the relationship between entrepreneurs and investors, further delimitations have been made. A start-up company must almost unexceptionally acquire capital from external financiers in order to grow; often this means several rounds of investments in the different development phases. Generally, family and friends are the first ones to invest, followed by loans, business angels, venture capital firms, and then larger private equity firms, industrial investors or introduction on the stock exchange.\(^5\) The authors have chosen to focus on the early development stages, seed and start-up stage (as shown in figure 3), due to the fact that most of the companies in the incubator process are operating at these stages at the time of their enrolment at Ideon Innovation. At these stages, the typical investors are business angels and venture capital firms.\(^6\)

\(^4\) Ideon Innovation internal information  
\(^5\) Berk & DeMarzo (2007)  
\(^6\) ibid
As seen on a company’s balance sheet, the two sources of financing are equity and debt. To obtain a loan or other credit facilities from financial institutions may be difficult during the early stages of a company’s development, since debt is often secured on assets which generally do not exist in a start-up company. The authors will therefore limit the scope of this thesis to consider equity as the main source of financing, which is shown in figure 4.

Figure 3: Focus of financing cycle

Figure 4: Grey boxes show focus of financing sources

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7 Ilar et al. (1999)
8 Berk & DeMarzo (2007)
9 Isaksson (2006)
1.5 Target group
This master thesis is aimed primarily at people involved in the innovation system in Lund, especially the employees and the companies at the business incubator Ideon Innovation. The recommendations in the last parts of the thesis are given towards the employees of Ideon Innovation, but can hopefully be used by any other incubator with some small adjustments.

Secondly, the master thesis is aimed at all early-stage firms interested in raising external capital and at people interested in financing and entrepreneurship.

1.5.1 Reading instructions
Chapters 2-3 are of academic nature and can be neglected if the reader’s objective is purely associated with the results and applications of the thesis. For an entrepreneur or investor, the suggested chapters to read are primarily chapters 5-8. A brief description of all chapters will follow below (1.6 Disposition).

1.6 Disposition
Chapter 1 – Introduction
The field of research and a background to the thesis is introduced. Finally, purpose and delimitations of the master thesis are defined.

Chapter 2 – Methodology
The research approach and methods used in the study are presented and motivated.

Chapter 3 – Theoretical framework
Existing scientific theories relevant to the study are reviewed.

Chapter 4 – Ideon Innovation
A description of Ideon Innovation is presented to create an understanding of current incubator operations, especially financing.

Chapter 5 – Investors
Presentation of the most interesting findings from interviews with and surveys distributed among investors.

Chapter 6 – Entrepreneurs
Presentation of the most interesting results from the survey distributed among entrepreneurs.

Chapter 7 – Case studies
Multiple case studies are conducted to explore to a further extent how a few
selected companies have handled their financing need during and shortly after their time at the incubator.

**Chapter 8 – Analysis and recommendations**
The objective with this chapter is to analyze the findings from empirical data and theoretical framework, in order to make conclusions and fulfill the purpose of providing Ideon Innovation with recommendations.

**Chapter 9 – Conclusions**
The last chapter contains conclusions regarding the overall process of the master thesis.
2 Methodology
This chapter presents and motivates the different research approaches and methods chosen and the procedures used in this thesis. Selecting the appropriate methods is crucial for the credibility of the results; hence a thorough analysis of the different options has been made.

2.1 Research approach
A research approach can be significantly different depending on the researcher’s view on knowledge and the research’s goal. Arbnor and Bjerke identify the analytical approach, the systems approach and the actors approach as the three main research approaches in business research.

2.1.1 Analytical approach
In the *analytical approach* the reality is independent of its observer, why it is called the objective reality in which a system always can be explained as the sum of its independent parts. A basic question in this approach is how to gain knowledge of the objective, i.e. to separate between stabile objective matters and subjective experiences. The reality is made up of verified hypotheses regarding these objective matters. To gain further knowledge, a hypothesis is made and later verified or falsified. These verified or falsified hypotheses make clear objective facts which are subsets of the objective reality. The key to explain the objective fact in this reality is causality; trying to explain an effect by finding a previous cause. The more causes that can be found the more accurate knowledge is gained.\(^\text{10}\)

2.1.2 Systems approach
The key difference between the *systems approach* and the analytical approach is the assumption of reality. In the systems approach, the reality is such that a system as a whole differs from the sum of its parts, which means the relations and dependence between the parts are essential as they give rise to positive or negative synergies. In order to get a complete view of reality the whole system must be considered and analyzed. This more complex approach means the reality cannot only be explained but must also be understood.\(^\text{11}\)

2.1.3 Actors approach
The last approach discussed by Arbnor and Bjerke is the *actors approach*, which differs significantly from the previous two. Here reality exists only as a social construction affected by its constituents, hence the reality is not independent of its

\(^{10}\) Arbnor & Bjerke (1994)
\(^{11}\) ibid
observer. A whole system is in the actors approach defined by the characteristics of its parts, e.g., how the individuals experience, interpret and act. Reality is therefore not constant but changing over time, dependent on the individuals in it. The result of a study with the actors approach is an understanding of the processes which constitute reality, compared to the previously described approaches which explain it. This is graphically visualized in figure 4. ¹²

![Diagram of research approaches and their results](image)

**Figure 5: Research approaches and their results¹³**

### 2.1.4 This thesis

Given that the purpose of this study is to analyze the investment process from several perspectives and to provide Ideon Innovation with recommendations, the systems approach was at first believed to be the most appropriate research approach. This approach is often utilized in a study where structuring and analyzing a complex system is vital and when changes of one part affect other parts, such as in the system of this study, described in figure 6. However, as the objective of this thesis also is to construct recommendations for actions, a deep understanding of the investment process is required. Since only the actors themselves decide the details of an investment process and since its structure is so dependent on its constituents, a mixture of the systems approach and actors approach have been decided upon. The structuring of the complex system will be undertaken with a systems approach and the analysis of its constituents’ actions will be undertaken with an actors approach. This is mainly because the result of a study with the actors approach is a deep understanding of the process, which is vital for the purpose of this thesis.

¹² ibid
¹³ Arbnor & Bjerke (1994)
When deciding the delimitations and which parts of reality to be included in the system, three main actors were chosen and named Incubator, Investors and Entrepreneurs. In this thesis the Incubator is Ideon Innovation and Entrepreneurs will be any company, which is or has been involved in Ideon Innovation’s incubation process. Yet, the authors believe the system can be applied to any incubator and their incubatees. The system will be viewed from all three perspectives throughout the thesis.

Several external actors have been identified whose actions affect the relations between the actors in this thesis’ particular system. These actors have been recognized and will be taken into consideration; however they will not be of significant matter when conducting an analysis of the system.

2.2 Research methods
Unlike the research approach, which describes the principle ideas of the thesis in its entirety, the research methods explain ways of collecting, structuring and analyzing data in different parts of the thesis.

2.2.1 Exploratory, descriptive, explanatory and normative studies
Based on previous knowledge within the field of research and on the aim of the project, different study approaches should be considered. Exploratory studies are used to gain knowledge of the problem, when the field of research is new to the author. Descriptive studies are useful when there is some knowledge and understanding in the area, and when the purpose is to describe rather than explain. The explanatory approach is commonly used when the aim is to seek deeper and
more detailed understanding, and when the author wants to describe as well as explain. Normative studies are similar to explanatory in that knowledge and understanding of the research already exists, but differs mainly in the aim, which for normative studies is to provide guidance and suggest possible actions and recommendations. 14 This approach is used to discuss and compare different suggestions and the consequences of them. 15

2.2.1.1 This thesis
The purpose of this thesis is to seek deeper understanding and to give a description of the actors in the system and the investment process in which the actors are involved. By understanding how the system functions, guidance and recommendations for actions can be provided. Consequently, a combination of the explanatory and the normative approach will be suitable for the thesis.

2.2.2 Inductive, deductive and abductive methods
When navigating between the empirical world and the theoretical world throughout a study, two methods are the most commonly used; the inductive and the deductive method. From the empirical world, facts are gathered through observation and various other types of data collections. The theoretical world consists of generally accepted models, e.g. mathematical formulas and logical sequences. 16 The inductive approach uses the empirical results in order to find certain patterns that can be summarized in new models and theories. In other words, existing theories do not have to be present in this type of study. The deductive approach on the other hand, starts with theory, from which assumptions about reality are made; these assumptions are then either verified or dismissed by the gathering of empirical evidence. The two methods are described in figure 7. Abduction is a combination of the two previous approaches and circulates between the empirical and the theoretical world instead of moving in one direction or the other. 17

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15 Wallén (1996)
16 Arbnor & Bjerke (1994)
2.2.2.1 This thesis

The field of research, investing in early-stage companies, is overall empirically rather than theoretically based; hence making predictions based on theory is not suitable for this study. Neither would it be appropriate for this study to start in the empirical world, since the authors’ previous knowledge of the topic is limited. Instead, a theoretical framework was initially developed on which empirical studies were later based. The initial theoretical framework was later complemented with the empirical studies as well as previous empirical studies and other theories, to make conclusions necessary for reaching the purpose of the thesis. Since the abductive approach uses empirical data and theory interchangeably, this was deemed to be the most appropriate procedure for this study.

2.2.3 Quantitative and qualitative studies

Studies containing information which are measured and valued numerically are quantitative studies. Methods such as surveys and practices of mathematical models are often applied. Since everything cannot be measured quantitatively, it is however a limited method of study. To gain more knowledge further studies must be conducted; hence qualitative studies are used to gain a deeper understanding. Interviews and observations are methods often applied in these studies. The potential of generalization is however lower with qualitative studies compared to quantitative. The purpose of the study is the key consideration when deciding between quantitative and qualitative studies.

2.2.3.1 This thesis

Since the purpose of this thesis requires an understanding of the subject to be able to construct recommendations, qualitative studies were necessary. At an early stage

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18 Arbnor & Bjerke (1994)
surveys were conducted and annual reports reviewed, to collect quantitative information, which would form the foundation for the qualitative studies at later stages.

2.2.4 Strategy of research
To make the research process as efficient as possible, a research strategy was developed by the authors at an early stage of the thesis. The strategy was then followed throughout the research process, to make sure that no fields of interest were missed and to be able to meet the objectives of the thesis.

Figure 8: The strategy of research undertaken in this thesis

In the early stages a significant amount of knowledge regarding the field of research was necessary for the authors to obtain. This was accomplished through literature studies; books, scientific articles and market reports regarding entrepreneurship and venture capital.

It was early decided how to conduct the later stages of the research process. Several investors and entrepreneurs needed to be interviewed for the authors to reach a sufficient understanding of the investment processes in order to make recommendations. It was decided to make case studies of companies which had left the incubator and raised capital from investors with various successes, as well as conduct interviews on a more general level with investors having an extensive investment background. Therefore the last two stages of the research strategy were decided upon before the second and third stage.

A major concern was how to prepare for the interviews with investors and entrepreneurs. The solution was decided to be group surveys targeting both
investors and entrepreneurs, in order to obtain patterns regarding the investment process and gain knowledge from which the interviews would later be structured around. Before preparing the survey, a first round of interviews was conducted with researchers being involved in business angel research as well as with some key actors from Ideon Innovation, in order to make the survey more relevant. Although the main objective from the first round of interviews and the group survey was to fully prepare for interviewing investors and entrepreneurs, the initially gathered data was used throughout the process as well.

2.2.5 Methods for data collection
Data can be divided into two main categories; primary and secondary data. Primary data is generally gathered for the current study and includes methods such as interviews, observations, questionnaires and experiments. Different from primary data, the secondary data was initially gathered for another purpose than the current study; examples of this data are literature in the form of books, journals, brochures and seminars.\(^{19}\)

Literature is easy to acquire in large volumes at relatively low costs. However, methods of how the information is gathered are not always presented, why the credibility of the information should be evaluated and questioned before using the information. Interviews are useful when the desire is to gather specific information relevant to the current study. They allow the interviewer to customize the questions to suit the different respondents, yet one should take into consideration the increased cost and time inefficiency they imply in comparison to other data collection methods. Surveys are useful to reach a larger population size at a lower cost than interviews. However, they are standardized and there is a risk of respondent misinterpretation.\(^{20}\)

2.2.5.1 Primary data
Interviews are a common technique for collecting primary data. Arbnor and Bjerke have presented four different types of interviews; personal interviews, telephone interviews, postal surveys and group surveys. Questions asked during an interview may be either open or closed, with an open question described as a question without bound answering options and a closed question with bound answering options.\(^{21}\) In this thesis three of the four types of interviews were conducted, leaving out only telephone interviews.

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\(^{19}\) Björklund & Paulsson (2003)
\(^{20}\) Björklund & Paulsson (2003)
\(^{21}\) Arbnor & Bjerke (1994)
**Personal interviews**

Personal interviews were deemed to be the most appropriate when collecting data from investors as well as entrepreneurs. The objective of the personal interviews was to gain insight in the way the interviewees work and most of all to give a reflection of their opinions regarding the process of raising external capital, in their company specifically but also in the Skåne area generally. With this objective in mind, the authors considered it vital for the interviews to be personal.

Many of the potential interviewees were situated in the Skåne area, which made it possible to interview a sufficient number of investors and entrepreneurs with regards to both time and cost.

As almost all investment processes are complex and heterogeneous and with the objective of reflecting the interviewees’ personal opinions, the authors wanted the investors and entrepreneurs to be able to speak freely and decided to use open questions during the personal interviews.

Personal interviews was used both with investors to get their view of the investment process and with entrepreneurs in the shape of case studies, described in chapter 2.2.6.

**Surveys**

As one of the first steps in the collection of data, a group survey was conducted. As mentioned, the investment processes are complex and heterogeneous, which is why the authors wanted to reach a large sample of both investors and entrepreneurs with closed questions to hopefully make some patterns visible. To reach such a large sample size that surveys enable, would not be possible by using interviews exclusively. Although without being close to statistically significant, the objective of reaching a few conclusions was achieved and the knowledge gained from the group surveys was a solid foundation for the authors to structure the personal interviews on. The most interesting results from the survey answers are presented later in this report.

With several potential interviewees highly involved in a large number of companies it was not always feasible to schedule personal or telephone interviews. The authors believed the next best solution beside these two interview types were postal surveys (through email) with open questions, which were used to some extent.

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22 Paul et al. (2007)
2.2.5.2 Secondary data

Market reports
As the idea to this master thesis origins from the news of a downturn in the venture capital market, an initial scanning of market reports was deemed to be necessary to find out if the news were correct. The findings were important both with regards to the information which was later used in the report but also to spur the authors’ interest and increase their sense of importance of the subject. The reports were found on various governmental institutes’ websites.²³

Books
To start the process of this thesis, even before formulating the objective and purpose, the authors needed to obtain necessary knowledge from appropriately selected books. The books were selected by the authors themselves, mainly from the library at Lund University. Studying books was almost exclusively done at the early stages of the research process, and the topics covered areas such as entrepreneurship, venture capital, business angels and valuation.

Scientific articles
Previous studies in this field of research are as mentioned previously often more empirically than theoretically based, which made it necessary to read relevant scientific articles to gather important findings in the area. The articles were of more recent character than the majority of the books, which made scientific articles the main source in finding relevant methods and models. The articles were obtained from the LibHub database of Lund University.²⁴

Annual reports
In preparation for the case studies, a study of the companies involved was made. During these preparations the public annual reports of the companies were vital, providing a history of financial and operational performance. The annual reports were obtained using the database Retriever Business, to which access had been given through Lund University.²⁵

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²³ Svenska riskkapitalföreningen <www.svca.se>, VINNOVA <www.vinnova.se>, Innovationsbron <www.innovationsbron.se>
²⁴ LibHub was later replaced by Summon at Lund University <lu.summon.serialssolutions.com>
²⁵ Retriever Business <www.retriever.se>
2.2.6 Case studies

2.2.6.1 Overview
Case studies are especially valuable during research where the object of study is of complex nature, or when the area of study is relatively unknown. The case study research method seeks to understand the dynamics within single settings, and the purpose of using the method is typically to provide description, to test theory or to generate theory.26

The analysis benefits from using more than one case; it is recommended to use four to ten cases in a multiple case analysis. Selecting cases that are believed to be representative is of great importance since it is from these cases that generalizations are made. Multiple cases work most efficiently when the selected cases are closely linked to the research questions and when constant questions/parameters are used across the cases. This enables the authors to make better comparisons and ultimately draw generalized conclusions.

The data collection methods used for case studies are typically interviews, surveys and observations. The suitability of a certain data collection method should be considered with regards to whether the case study aims to provide quantitative or qualitative evidence.27

2.2.6.2 This thesis
A case study approach was deemed to be an appropriate means for collecting and analyzing data, considering the complexity of the studied topic. The purpose of this case study is to provide a general description of a few alumni companies and their previous experiences regarding raising funds, and subsequently generate theories to support the answers to problem statement 3:

3. Are there any lessons to be learned from companies, which have left the incubator?
   -From companies which have been successful in raising capital?
   -From companies which have not been successful in raising capital?

The case material was conducted through personal interviews with alumni companies, complemented with quantitative data from each company’s annual report. The interview protocol was partly based on the literature used to create the

26 Eisenhardt (1989)
27 Eisenhardt (1989)
theoretical framework and partly on the findings from the early interviews with researchers in the field and surveys conducted with investors and entrepreneurs.

After gathering and compiling the data, single-case studies and a cross-case analysis were performed, on which conclusions were drawn to underlie the analysis of the thesis. The case selection was based on several parameters, discussed further in chapter 7: Case studies.

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<th>Characteristics</th>
<th>Company X</th>
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<td>Industry</td>
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<td>Revenue</td>
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<td>Employees</td>
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<td>Serial entrepreneur?</td>
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<td>Capital raised first round</td>
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<td>Status at time of first investment:</td>
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<td>Customers</td>
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<td>Years since start</td>
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<td>Investment process: Type</td>
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<td>Investment process: Length</td>
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<td>Investors: Type</td>
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<td>Investors: Number #</td>
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<td>How many more rounds?</td>
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<td>Total capital raised</td>
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Table 1: Constant parameters used across the cases.

2.3 Credibility of the study

The credibility of a study is an important aspect of making a study convincing. Björklund and Paulsson have identified three measures of a study’s credibility; validity, reliability and objectivity\textsuperscript{28}.

- Validity refers to the extent of which the study measures what it really intends to do. To increase the validity of a study, it is important to view a problem from different perspectives, e.g. by triangulation (use more than one method to gather data).

- Reliability of a study is basically the reliability of the measurement instruments, i.e. to what extent repeated studies will result in different outcomes. Ways to increase reliability are for example to use control questions when conducting surveys or interviews, as well as triangulation.

\textsuperscript{28} Björklund & Paulsson (2003)
Objectivity of a study means to what extent values affect the result, hence the importance to motivate all selections made in the study. It is also vital for a study’s objectivity to quote sources correctly.

The authors of this thesis have taken several measures to enhance the credibility of the study. They are summarized in table 2.
Table 2: Ways of increasing quality of the study in each chapter

At the initial stage, multiple sources were utilized to ensure objectivity and validity when creating a broad theoretical framework. In the empirical section, the first part describing Ideon Innovation is based on interviews with the employees as well as information collected from the company’s intranet.

During all interviews throughout the thesis, both authors were present and two draft reports were made. Any discrepancies in the draft reports were discussed with the interviewee. Key informants were also given the opportunity to review the material used in the report, which increased the validity of the study. The questions during the interviews were open without any bound answering options, which minimized the risk of the interviewers affecting the interviewee. This is a way of increasing objectivity of the interviews, as well as the authors’ interview protocol which prevented them from asking biased questions.

The large sample size and the control questions included made the surveys more reliable. To increase the validity of the surveys, several known Swedish researchers and employees at Ideon Innovation have been involved in the creation of the surveys.
3 Theoretical framework

This chapter presents theory relevant for the studied topic, which together with the empirical chapter will underlie the analysis and recommendations. The three actors in the system: entrepreneurs; investors; and the incubator will be presented thoroughly, as well as theories regarding investment processes and financing. Some of these theories are presented to provide a general understanding of what previous research of this subject contains, while others are more direct applicable to this thesis.

3.1 Entrepreneurs

3.1.1 Introduction

In this thesis start-ups and young companies will be described as “entrepreneurs”, which means that when discussing an entrepreneur, the authors do not necessarily mean only one person. It is in the literature not an important matter whether a start-up has one or several employees, and because of the frequent use of the word “entrepreneur” in several sources referred to in this chapter, so will also be the case in this thesis.

3.1.2 Definition

The definition of an entrepreneur is not completely clear according to literature. However, when looking at the fundamental report by Bolton in 1971, a basic definition in two parts can be found; one qualitative and one quantitative. The qualitative definition focuses on the specific characteristics of a small company; low market share, personal leadership instead of formal management structure and the fact that the company is independent and not part of a larger corporation. The quantitative definition is one regarding absolute numbers of e.g. revenue, employees and assets, which according to the authors of this thesis is very industry-dependent and should therefore be neglected.²⁹

3.1.3 Financing needs

Entrepreneurial firms are a major source of new employment in Europe and external risk capital is therefore an essential resource to those new ventures in

²⁹ Bolton (1971)
order for substantial employment growth to take place. Entrepreneurial venture growth is characterized by the companies’ inability to access early stage equity capital; hence the role of the private investors is most significant in the very early stages of the business growth.  

In a study made by Saetre (2003) two different entrepreneurial views on venture capital are revealed. Either the capital is viewed as a scarce resource, meaning it is the capital itself that is of importance, or it is viewed as a commodity, meaning that factors other than the capital are valued higher. The entrepreneurs who belong to the latter category are far more particular about whom they let invest; they require competent investors with relevant industry experience and networks.

### 3.1.4 Important matters of concern for investors

Helle describes in the book “Affärsänglar och andra tidiga investerare” how the entrepreneur can gain from trying to understand the company through the eyes of an investor. He discusses an evaluation model, which addresses some of the typical questions the investor asks, or expects the entrepreneur to present, in an investment situation. The model includes the three sub-headlines described below.  

#### 3.1.4.1 The people in and around the company

Firstly, the entrepreneur is of great importance for the investors’ investment decision, since the entrepreneur is the driving force behind the business idea, and without him/her there would be no company. The relationship between the investors and the entrepreneur should be based on mutual dependence, trust and confidence; hence the choice of future business partner is crucial. Secondly, an investor rather invests

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30 Mason & Harrison (1999)
31 Saetre (2003)
32 Helle (2006)
in a close-knit team than in a solo entrepreneur. This is partly due to the simple fact that a group of competent and experienced individuals add to the credibility of a start-up.\footnote{ibid}

### 3.1.4.2 The business opportunity

A business opportunity arises only if there is a potential market and potential buyers. To convince the investors, the entrepreneur needs to have a clear target of customers and preferably have one or more customer contracts already. Further, a business idea and a business model should clarify how the company intends to run the business and how they expect to earn money. Timing is another crucial element in the search for a business opportunity. Gaps in the market that enables a new company to grow rapidly and make potentially large returns are more likely to attract investors. In general, investing in a start-up involves taking large risks which investors want compensation for, why a large return on investment often is required.\footnote{ibid}

### 3.1.4.3 Market potential

The market potential is determined by market research which aims to establish present societal conditions, and includes technological and economic situations as well as current competition, norms and regulations etc. Models such as SWOT-, PESTEL- and Porter’s Five Forces-analysis are effective tools for this purpose. A thorough market research is of significant importance especially when the potential investor lacks knowledge within the specific industry.\footnote{ibid}

The criteria from the evaluation model tells us which parameters are typically in focus, yet they are not weighted by importance, which leaves an open window for the authors of this thesis to further investigate and map the investment process.

\footnote{ibid} \footnote{ibid} \footnote{ibid} \footnote{Helle (2006)}
3.2 Investors

3.2.1 Business angels

3.2.1.1 Definition and characteristics

Business angels are typically individuals who invest private capital in return for equity positions in newly established firms in which they have no family connections. Business angels are very heterogeneous, and no single definition has been established despite 25 years of research within the field. One of several detailed definitions is presented by Mason and Harrison, who describe the standard business angel as:

A high net worth individual, acting alone or in a formal or informal syndicate, who invest his or her own money directly in an unquoted business in which there is no family connection and who, after making the investment, generally takes an active involvement in the business, for example, as an advisor or member of the board of directors.

This definition is of general nature, but covers the characteristics of the typical business angel, and will be used throughout this thesis. Business angels are wealthy individuals, as stated in the definition, usually with backgrounds as successful entrepreneurs or businessmen. Many business angels often have non-financial motives and are therefore at times willing to negotiate the financial part and accept a lower financial return. According to Landström, these motives reflect the business angel’s entrepreneurial drive and include having an active role in the small firm and therefore being able to influence the investment.

Globally, the presence of business angels is growing, and in many countries they constitute the next largest source of financing for start-ups, after family and

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36 Avdeitchikova et al.(2008)
37 Mason & Harrison (1994)
38 Helle (2004)
39 Landström (1997)
A recent decrease in the supply of finances from VC-firms in start-ups, suggests that investments from business angels will be of great relevance in the future. The business angel is a rather risk-taking individual who invests in the earlier stages of firms (seed and start-up), where less capital is needed and where the institutional venture capital providers find the uncertainty and small size of investments unappealing. Studies on the Swedish market shows that the average business angel allocates only around 11 per cent of his/her investment portfolio to venture capital in unquoted companies, which allows him/her to make riskier moves.

The activities of business angels are often private (informal), hence difficulties arise when gathering information about them as well as estimating the size of the informal capital market. According to Helle, many business angels want their identity and activities to remain undisclosed, which add to the fact that research on business angels’ investment activities, are difficult to obtain or to analyze. However, researchers and practitioners have in recent years taken a more active role to make the business angels more visible, enabling a closer contact between business angels, which has resulted in a larger number of business angel networks around the country. These measures have given opportunities for more collaboration between business angels, and Helle now distinguishes between the solo investor and the business angels who co-invest in so-called syndicated groups.

3.2.1.2 The solo investor

Many business angels invest by themselves and without connections to networks, for several reasons. By investing without fellow investors the business angels have greater impact and control over the businesses, and can avoid time-consuming processes of compromises. To be a solo investor involves taking on larger risks than others, however also keeping the whole of the potential returns.

3.2.1.3 Business angel networks and co-investments

A growing number of business angels choose to join formal or informal networks of investors, which can serve as intermediaries between the entrepreneurs and the investors. It is not uncommon for the network to share resources and strategy approaches in order to facilitate the investments. Furthermore, networks enhance the possibilities of syndication; an increasingly relevant phenomena, which removes some of the obstacles with solo investments. Studies suggest that

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40 Avdeitchikova et al.(2008)
41 Avdeitchikova (2008)
42 Helle (2004)
syndicated groups have a rare capability to decrease the gap between small and large investors because of their risk- and capital-sharing characteristics. The risk-sharing enables them to take on riskier projects than solo-investors and therefore invest in earlier-stages, and the pooling of capital also enables the syndicated group to invest larger amounts in more mature companies.43

A number of advantages with business angel networks have been identified in the literature:44

- Divide the risks of investments among more investors
- Oppressive proposals can be avoided for the individuals due to the member’s anonymity
- Simplified marketing of the network due to shared costs
- Public contact increases the inflow of business proposals
- The proposals undergo a preliminary investigation and the inappropriate ones are screened out
- Expertise within different areas and branches is likely to be represented in the network
- The individual business angel’s contact network can be shared
- Internal training
- Common courses of action and shared ethical rules
- Social meeting place, which makes the work more enjoyable

3.2.2 Venture Capital-firms

3.2.2.1 Definition & Characteristics
The venture capital-firms constitute a more homogenous group than the business angels and research indicates that there is a more unified definition of this type of investor. Berk and DeMarzo describe a venture capital-firm as:

A venture capital-firm is a limited partnership that specializes in raising money to invest in the private equity of young firms.45

A distinct difference between business angels and venture capital firms (VC-firms), which is not clarified in the definition, is that the VC-firms invest other people’s money in the portfolio firms. They raise capital from outside providers such as pension funds, corporations and individuals; capital which in turn is invested in early-stage, unquoted portfolio companies.46 In other words, VC-firms are

43 Aernoudt (2005)
44 Helle (2004)
45 Berk & DeMarzo (2007)
46 Van Osnabrugge & Robinson (2000)
intermediaries between the fund providers and the portfolio firms in a complex relationship, which is shown graphically in figure 10.

![Figure 10: The cash-flows of the venture capital-fund model](image)

The relationship between the fund providers, also known as limited partners (LPS), and the VC-firms is purely financial. The VC-firms prefer to raise large funds in order to get economies of scale; hence increasing the possibilities of gaining larger financial returns from their investments. This is not surprising considering that the returns are used to repay the original sum of fund to the limited partners, only leaving a percentage of the possible profit for the VC-firms. As shown in figure 10, the VC-firms typically only earn 20 per cent of the capital gains plus a 3 per cent annual management fee. It is also clear that the VC-firms are the only agents having to deal with, and provide information to, both the suppliers and the demanders of capital, which makes their role more complex.

Capital from VC-firms is suitable for companies being somewhere between the start-up and the exit phase. The VC-firms invest in companies with high expected growth, which usually excludes firms in the seed phase. Furthermore, they contribute with expertise, access to a wide network and legitimacy. The downside with this source of financing is, however, that the VC-firms often are demanding as

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47 Van Osnabrugge & Robinson (2000)
48 Van Osnabrugge & Robinson (2000)
shareholders and if the entrepreneurs do not achieve the goals set by the VC-firms they might lose control over the company.\textsuperscript{49}

### 3.2.3 Main differences between investor types

As described previously there is a distinct structural difference between venture capital-firms and business angels, especially from the entrepreneur’s point of view. When interacting with a business angel they will most likely meet a former entrepreneur who is considering investing his/her own money, instead of a full-time professional who raises outside capital to invest; hence the personal differences are likely to be significant. Other aspects are their investment experience and capacity, which are most likely larger for a venture capital-firm than a business angel.\textsuperscript{50}

During the time as a shareholder, so-called post-investment, there are several arguments to why a business angel will be more involved in the running of a start-up than a venture capital-firm. The key argument is the fact that the financial responsibility is very limited for the professionals at the VC-firm compared to the business angel, which may imply further involvement in the day-to-day business from the business angel.\textsuperscript{51} This is further discussed in chapter 3.4.2 (an agency model).

Van Osnabrugge and Robinson (2000) consider the exit focus as a significant difference between the investor types. They argue that the VC-firms have a larger focus on exit during its time as equity holder and on achieving sufficient returns on an investment when exiting. Other differences discussed by Van Osnabrugge and Robinson are contract types and importance of location; the business angels in general use a simpler form of contract and are typically concerned about the location of the investment to a greater extent than the VC-firms.\textsuperscript{52}

### 3.2.4 Investor contribution

A theory regarding investors’ post-investment involvement was introduced by Saetre in 2003, characterizing the degree of involvement with a certain number of the letter C. Investors who do not get involved in the running of a company, inactive investors, only contribute with one C; Capital. If investors are active within the company, i.e. if they show commitment and contribute with their experience and knowledge to develop the company, they are said to contribute with

\begin{itemize}
\item \textsuperscript{49} Ilar et al. (1999)
\item \textsuperscript{50} Avdeitchikova et al. (2008)
\item \textsuperscript{51} ibid
\item \textsuperscript{52} Van Osnabrugge & Robinson (2000)
\end{itemize}
three Cs: Capital, Competence and Commitment. Taking all these Cs into account, this type of capital is called competent capital. The third type of investors go one step further, not only are they active and committed which makes them provide competent capital, they also have relevant niche-industry experience to provide access to their highly pertinent networks. This type of capital is called relevant capital. Relevant capital-investors provide four Cs to their companies: Capital, Competence, Commitment and Contacts. This last C moves the capital from being human capital to becoming social capital.\(^{53}\)

### 3.3 Financing theories

#### 3.3.1 Introduction

The relative proportions of equity, debt and other securities a firm has outstanding, constitutes its capital structure. A large issue for most companies is the choice of how to finance the firm, how to choose the most appropriate capital structure. In the real world this is of course dependent on for example which industry the company operates in, banks being the extreme example with often over 95 per cent debt on their balance sheet because of their business model. A general view of debt as a risky choice of financing is also widely established. In theory however, a historical debate has been ongoing regarding the choice of capital structure as a way to optimize the value of the firm. A short review of a few different approaches will now follow.

#### 3.3.2 The Modigliani-Miller approach

In a seminar article from 1958, Modigliani and Miller showed that leverage would not affect the total value of the firm; it merely changes the allocation of cash-flows between debt and equity without altering the cash flows of the firm. This was conditioned to what is referred to as perfect capital markets:

1. Investors and firms can trade the same set of securities at competitive market prices equal to the present value of their future cash-flows.
2. There are no taxes, transaction costs or issuance costs associated with security trading.
3. A firm’s financing decision do not change the cash flows generated by its investments, nor do they reveal new information about them.

Under these conditions the Modigliani-Miller proposition, that the firm value is not affected by the choice of capital structure, was formulated. It is of course easy to question Modigliani-Miller’s result, because of the unrealistic conditions. While it

\(^{53}\) Saetre (2003)
is true that capital markets are not perfect, all scientific theories begin with a set of idealized assumptions from which conclusions can be drawn. In practice however, one will naturally find that capital structure can have an effect on firm value.54

3.3.3 The trade-off theory
The trade-off theory of capital structure is one of these theories which have emerged from Modigliani-Miller. It is based on the idea that a company chooses the amount of debt and the amount of equity to use by simply balancing the costs and benefits. The conclusion of the trade-off theory is to explain the fact that most companies usually are financed partly with debt and partly with equity.55

- If a firm issues debt, it involves interest costs on this debt. These costs are tax-deductible, hence the more debt a firm issues the lower are the taxes paid and the higher the value of the firm.

- However, debt is risky as it involves a fixed payback obligation, which means the likelihood of financial distress for a firm increases with higher debt. When the likelihood of financial distress in the future increases, so does the present value of the financial distress costs.

- The trade-off theory is based on the trade-off between the higher tax-shield and higher financial distress costs when a firm increases its outstanding debt. The trade-off theory in one sentence would be:

“The total value of a levered firm equals the value of the firm without leverage plus the present value of the tax savings from debt, less the present value of financial distress costs.”56
3.3.4 The pecking-order theory
As a competitive theory to the trade-off theory in explanation of how companies make their capital structure decisions, the pecking-order theory takes a different approach. It is based on the *principle of least effort*, which means the path of least effort or resistance will be chosen. In capital structure decisions, this implies raising equity as financing means should only be as a last resort. The theory takes asymmetric information into consideration, as managers know more about the company than outside investors (see further in “The financial gap”: chapter 3.4), and because of the asymmetric information it is too difficult to raise equity. The pecking-order theory states that internal funds are used first for financing investments, then debt and as a last resort equity. However, the theory does not take into consideration the fact that some firms cannot issue debt, which can be the case financially distressed or early-stage firms.\(^{58}\)

3.3.5 Financing of small companies: reverse pecking-order?
The traditional pecking order theory suggests that external equity should be a last resort. However, the Belgian researcher Rudy Aernoudt shows in a study from 2005 that start-ups have an excessive demand for external equity, which is explained by several reasons. Without revenue and cash-flow, internal financing can be difficult to accomplish. Debt is firstly often secured on assets many start-ups do not possess which make it hard for them to get loans from financial institutions. Secondly, debt also means interest costs and fixed payback obligations. Aernoudt

\[^{57}\text{ibid}\]
\[^{58}\text{Myers & Majluf (1984)}\]
means that for an early-stage company there are a number of positive aspects with business angel financing, for example the absence of financial expenses, establishment of a smart partnership and doors opening to second rounds of financing. Business angel financing, in this sense, can therefore no longer be considered as last resort of financing according to Aernoudt.59

3.4 The financial gap

3.4.1 Introduction
Studies of early-stage companies’ capital structure have always had a major focus on what is called the financial gap. Its existence has been debated for decades.60 The financial gap theory simply explains that there can be a gap between investors and entrepreneurs, with underlying reasons often linked to either insufficient funds from the supply side or inadequacies from the demand side, or sometimes both.

The theory of a financial gap has its root in the 1930’s when the Report of the Macmillan Committee observed a problem of small companies having a tendency to be discriminated by investors.61 The often cited Bolton report from the UK in 1971 concluded later that the financial gap is derived from a “knowledge gap” between small firms and investors; the investors did not understand the entrepreneurs’ situations and the entrepreneurs did not satisfy the investors’ demand for information and had insufficient knowledge of different opportunities for raising capital.62 Landström (2003) concludes that several studies of the financial gap phenomenon have been conducted with different units of analysis and results, but the essential explanation to why there exists a financial gap is the information asymmetry between the investor and the entrepreneur, i.e. one part of the project knows more than the other. For a complete view of the problem, it is necessary to look at both the supply and demand side of capital.63

3.4.1.1 The supply side
There are several reasons to why investors, which supply capital, would treat entrepreneurs and small firms different than larger firms.64

- Too high risk. Studies show that a larger part of young and small firms fail and go into bankruptcy than mature companies. The conclusion is that investing in

59 Aernoudt (2005)
60 Landström (2003)
61 Stamp (1931)
62 Bolton (1971)
63 Landström (2003)
64 ibid
a start-up implies greater risk than investing in a more mature firm, *ceteris paribus*.

- Investors lack competence and instruments to handle startup-firms. The ordinary ways of valuing and analyzing firms are often not applicable to young and innovative firms, which can lead to a preference for mature firms in investors’ minds.
- The transaction and monitoring costs are too high. Small firms demand lower invested capital, however the screening process is at least as costly as for a mature firm (see previous bullet), which means the transaction costs for investing in a small firm is high in relation to the amount of invested capital. This steers investments away from small to larger firms.

### 3.4.1.2 The demand side

It is important to not only blame the investors for a financial gap, explanations can also be found with the entrepreneurs. Some reasons to why entrepreneurs might not receive as much capital as they need are listed below.

- Insufficient knowledge of investments. There are several sources of capital for an entrepreneur, which is positive because it creates a well functioning market, however to map out different alternatives and gain knowledge of the sources and what they demand might be too overwhelming for an entrepreneur. 
- The pecking order theory. A classic theory from 1984 which is described previously in chapter 3.3.4. It is as mentioned based on the principle of least effort, meaning companies will at first use internally generated funds for financing, then debt and only as a last resort equity financing. The principle is based on the entrepreneur’s wish to have control over its firm and wants flexibility in the organization.

The conclusion is that the information asymmetry, which is the foundation of the financial gap issue, can be derived from both the investors and entrepreneurs. This is visualized in the figure 12.

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65 Landström (2003)
66 Myers & Majluf (1984)
3.4.2 Explaining the financial gap – an agency model

The financial gap previously described and the processes it is affecting are characterized by a lack of theoretical framework, which means most studies on this subject are empirically instead of theoretically based. To find an applicable theoretical base for this study, agency theory is utilized and applied to venture capital (formal and informal) investing, as Van Osnabrugge did in a study from 2000.

3.4.2.1 Introduction

This agency model has its foundation in the arrangement where ownership is separated from control, i.e. one party (the principal) delegates work to another (the agent) who performs that work (runs the business) on the principal’s behalf. In this arrangement there are certain vital pieces of information only available to the agent and not the principal, which leads to asymmetric information. It is difficult for the principal to know if the agent is using this information for his/her own advantage instead to the advantage for the firm and the principal, which leads to a number of problems.

3.4.2.2 Contracts

The agency relationship described is basically individuals with different preferences trying to cooperate, and to limit the agency costs in this cooperation contracts are employed. The contracts specify the agent’s rights, performance criteria and payoff functions. In this principal-agent theory the most efficient contract governing the principal-agent relationship is trying to be determined. However, contracts cannot be written neither enforced without cost, which leads to agency problems. Contracts imply costs of structuring, bonding and monitoring.

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67 Landström (2003)
68 Van Osnabrugge (2000)
and these costs may in total exceed their benefits. This is particularly true in small, knowledge-based firms such as startups, because the lack of fixed assets to be used as securities in contracts. The asymmetries of information cannot be fully contracted away, which leads to two causes of agency problems; conflicts in alignment and verification of goals, and conflicts in risk sharing.69

3.4.2.3 Two particular agency problems
The two conflicts lead to two particular agency problems vital in the description of a principal-agent relationship; moral hazard and adverse selection. Moral hazard means that the agent does not make the effort agreed upon in the contract. Furthermore, because the agent only benefits when the firm makes profit, risky investments/actions are likely from the agent when the firm is in a bankruptcy state. Adverse selection refers to the fact that the principal cannot fully observe or verify an agent’s skills or abilities when the agent is hired, hence the contract must be adjusted thereafter. A very skillful agent will be unhappy with this contract and probably not accept, which leads to adverse selection of agents.70 This theory was made famous by Georg A. Akerlof in 1970 with his “Market for lemons”.71

The classical principal-agent approach described is concerned with determining the optimal contract, but involves a number of unavoidable agency costs described in figure 13.

Figure 13: Description of the principal-agent approach72

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69 ibid
70 Van Osnabrugge (2000)
71 Akerlof (1970)
72 Van Osnabrugge (2000)
3.4.2.4 **The incomplete contracts approach**
As an alternative to the principal-agent approach, a second approach is identified called the incomplete contract approach, which basically states that contracts are always incomplete and therefore it is rather the *ex post* allocation of control which is more important, rather than *ex ante* screening and contract writing. The different approaches place emphasis on different stages of the investment process, where the incomplete contracts approach implies trying to gain control at a later stage.\(^\text{73}\) Particularly in a high-risk small-firm environment, it is suggested that the best way to gain control and exert power over the investment may be through active involvement post-investment.\(^\text{74}\)

3.4.2.5 **Application to small firms’ funding environment**
The key founding of Van Osnabrugge’s study in 2000 is that the structural differences between two investor types in the same investment environment, business angels and venture capital-firms, will influence their approach to making investments. The hypothesis, which was verified through extensive studies of investors, was that business angels will use the incomplete contracts approach and VCs a principal-agent approach. The probable causes to why VCs will spend more effort controlling an agent *ex ante* investments are the internal pressures VCs have to behave competently for their fund providers, which is not necessary for business angels.\(^\text{75}\)

3.4.3 **Investment process models**

3.4.3.1 **Introduction**
The investment process in start-ups is not carelessly described as an *ad hoc* process since the complex characteristics of the relationship between entrepreneurs and investors leads to very different investment procedures. The investment process is also somewhat under-researched, which further aggravates the objective of describing the process clearly. However, a soundly and readily understood model offers a number of advantages to stakeholders in the investment process, which is why some models found in the literature will be described.\(^\text{76}\)

3.4.3.2 **Business angel investment process**
Paul, Whittam and Wyper took in 2007 an approach different from the majority of studies made until then, when they described the complete process instead of

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\(^{73}\) Van Osnabrugge (2000)
\(^{74}\) Hart (1995)
\(^{75}\) Van Osnabrugge (2000)
\(^{76}\) Paul et al. (2007)
disaggregated and focused on particular stages. They found the business angel process to be sequential, however not completely orderly. The timescale was kept varying from three to eighteen months, indicating how different each individual process can be. Each part of the process presented by Paul et al in 2007 will not be described in this thesis, but merely show it graphically in figure 14, partly because of its self-descriptive parts and partly because studies about business angels should always be examined with caution. It is important to stress that this particular model is quite detailed which might make the process seem more complex than in reality, but the key take-away is the possibility of a backward step as an agreement is being formulated which provide the model with a flexibility close to the reality.\footnote{ibid}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure14}
\caption{The business angel investment process\footnote{Paul et al. (2007)}}
\end{figure}

### 3.4.3.3 Venture capital-firm investment process

The investment process of formal venture capital, i.e. venture capital-firms, is in principal similar to the one regarding business angels. Some researchers, as have been shown previously, state that the venture capital-firms will spend more time and resources pre-investment than business angels. This is however not visible in studies that describe the whole processes with an aggregated approach, where at
least the time scales are similar from initial contact to investment. A description of the investment process for venture capital firms is showed below.

![Figure 15: The venture capital process](image)

### 3.5 Business incubators

#### 3.5.1 Definition
The short description of a business incubator would be an organization, which provides services for start-ups. Entrepreneurial firms’ importance for a country’s economy is well established, and because of this, business incubators are often wholly or partly government-funded and non-profit organizations. It is anticipated that by providing start-ups with resources and social connections through a formal organizational structure, the firm is assisted in forming and developing in the marketplace.

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79 Isaksson (2006)
A common definition of a business incubator is difficult to find, however a large number of detailed and somewhat similar definitions can be found in literature. An example of a one-sentence definition follows below.

“Business incubators are property-based organizations with identifiable administrative centers focused on the mission of business acceleration through knowledge agglomeration and resource sharing.”

The extended descriptions of a business incubator tend to pay particular attention to four components of the incubators, which seem to be constant in most definitions.

1) Shared office space, rented under favorable conditions to incubates
2) Pool of shared support services to reduce overhead costs
3) Professional business support (“coaching”)
4) Network provision, internal and/or external

3.5.2 The incubator model
According to Bergek and Norrman (2008), research on incubator models is a fairly new phenomenon and judging from earlier research most studies on incubators are regarding how to measure incubator success, rather than about how and in what way the incubators actually provide support to their incubatees. However, most incubators share some common traits, which can be summarized into a model, figure 16.
3.5.2.1 Passive environmental factors

Passive environmental factors capture the various ways the incubator assists the companies without involving the incubator manager or coaches. Rice (2000) describes this from four different aspects; shared business services, use of equipment, share facilities and co-location in an incubator center. These factors seem somewhat trivial, but they are all ways to increase the incubators appearance towards its incubatees and can be useful for marketing purposes when performance measures are difficult to use for incubators.\(^{83}\)

3.5.2.2 Selection & Business support

Selection is the first step of the incubator process and refers to the acceptance process of new firms into the incubator. This process is essential since it determines the success of the individual incubator. The management’s task is to identify projects and entrepreneurs suitable for the incubator. A deeper understanding of the market and the process of new venture formation is key in order for the incubator to identify those firms that are “weak but promising”, those that cannot be helped, as well as the ones that do not need help.\(^{85}\)

Business support refers to the activities performed by the incubators in an attempt to facilitate commercialization of start-up companies. Rice (2000) divides the business support components into three types of counseling, according to who the initiator is (incubator or incubatee), and according to the incubators support and

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\(^{83}\) Rice (2000)
\(^{84}\) Ibid
\(^{85}\) Bergek & Norrman (2008)
continuity. (1) *Reactive and episodic* counseling means the incubator takes a passive role, waiting for the entrepreneur to request help in a difficult situation. Episodic refers to the duration of the support, which is usually limited to a specific problem. (2) *Proactive and episodic* counseling is initiated by the incubator, where the managers take an active approach engaging the firms in informal and ad hoc counseling. (3) *Continual and proactive* counseling, is also an incubator-initiated approach, with the difference that the support is ongoing instead of episodic.\(^{86}\) Strong incubator intervention can be both advantageous and disadvantageous and should be applied depending on the desired level of independence of the entrepreneur.

### 3.5.2.3 Mediation

Mediation is the term used to describe the incubator’s role as intermediary or “bridge” between the incubates and relevant networks. One of the main tasks of the incubator is to compensate for the incubates’ lack of entrepreneurial networks; this is done by matching the new ventures with providers of the right resources. These providers typically include the following\(^ {87}\):

- Universities and research institutions
- Consulting companies
- Financing institutions
- Accounting firms
- Patent offices
- Law firms
- Government agencies

By introducing the incubates to the appropriate actors, the incubator will increase the overall visibility of the firms, which in turn may increase the incubates’ legitimacy and credibility.

### 3.6 Conclusion of theoretical framework

After studying the relevant literature available regarding the subject, the authors were able to construct a theoretical analysis tool to base their empirical studies on. The analysis tool, which is shown graphically in figure 17, was built from the findings in literature, and based on the previous graphic visualization of the system to be studied (figure 6).

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\(^{86}\) Rice (2000)

\(^{87}\) Liu & Chen (2010)
Theoretical frame of reference

Figure 17: Theoretical frame of reference used during the thesis

This frame of reference will be the basis of the empirical studies. The characteristics of each actor (e.g. business support and mediation for the Incubator), which have been identified in literature, will be the foundation of which discussions during interviews and questions in surveys will be based. Another vital finding in the literature is the identification of a financial gap, with roots in information asymmetry, which also will be of great importance during the empirical studies and analysis. A number of external actors have been identified, and although their impact is recognized by the authors, they will not be of major focus in the thesis. The theoretical frame of reference also acts as the foundation to the agenda of the empirical studies, which is presented in figure 18.

Figure 18: Illustration of disposition of the empirics-chapter

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4 Ideon Innovation

This chapter presents Ideon Innovation in brief, with focus on financing, and will partly be the basis for the final recommendations to the incubator and its entrepreneurs. The data was gathered internally at Ideon Innovation, both through interviews with employees and through the incubator’s intranet.

4.1 Introduction

The project of Ideon Innovation started in 2000, but was officially founded in 2004 as a part of Ideon Science Park. The purpose of the incubator was to facilitate more entrepreneurial activities and the growth of start-ups in the Öresund region. 63 companies have made an exit from the incubator, some of which have been very successful. Currently, 25 start-up companies are enrolled in the incubation process. The length of the incubation depends on the entrepreneur; however, the most common time period for a company to stay in the incubator is 1-2 years. There are currently 5 full-time equivalents employed at Ideon Innovation, including a CEO and several business coaches.

4.2 Passive environmental factors

Ideon Innovation offers its incubates several shared business services, including a receptionist, security, janitorial and cleaning services, package reception, internet access and catering services. Equipments for the companies to use are limited as phone systems and printers are not available, however a copying machine is. The shared facilities of the building are a lunch room and several small meeting rooms.

Co-location is a particularly interesting aspect for Ideon Innovation, as it has large potential but not being very well used by the companies. In fact, one of the basic ideas of the typical incubator is to create a working environment with a high density of companies, which enables synergies if the companies choose to share experiences with each other. Ideon Innovation emphasizes peer-to-peer networking by arranging weekly breakfasts where the entrepreneurs can mingle under informal circumstances. Despite this, the inter-company networking is believed to be very limited without the coaches’ involvement, which leaves room for further improvement.

88 Ideon Innovation internal information
89 ibid
4.3 Selection

The selection process of Ideon Innovation has a clear structure compared to many other of its activities. The process is well documented and follows specific steps for all companies applying for a position in the incubator.

Companies applying

The selection criteria are relatively broad, as Ideon Innovation are accepting applicants from all industries and do not demand any specific technical originality, which leaves the window open for entrepreneurs without a technical background. The specific criteria are listed below.

1. **Innovative idea** – The idea should be an innovative solution to a known problem or need. The definition of innovation is very broad (process, article, service, strategy etc.).

2. **High growth potential** – A large, international market and a scalable business model.

3. **Entrepreneur with the right profile and characteristics**

4. **Verified and documented market, customer benefit and a technical solution**

5. **Legal entity should be registered**

Although the criteria are broad, they are also demanding and not all applicants are accepted. Successful applicants are most often already in the “innovation system” in Lund, either as students or doctoral students of the university. Historically, successful applicants constitute of one third students at bachelor or masters level, one third have been doctoral students or professors with high research experience and one third from other backgrounds.\(^{90}\)

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\(^{90}\) Ideon Innovation internal information

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4.3.1 The selection process

The process of a company entering the incubator starts with a dialogue between the company and one of the coaches of Ideon Innovation, in a stage which the incubator calls “Identify possibility”. The coach has the possibility to turn down the applicant already at this stage; otherwise a first meeting is set up. At this meeting a thorough review of the company’s business model is conducted together with the entrepreneurs to make sure the incubator’s criteria are fulfilled. During the stage, called “Establish meeting”, different models of analysis are often used (such as the Business Model Canvas\(^91\)) to make sure that all aspects of the business model are considered. A formal application is made by the company and the coach will thereafter use a “Second opinion”, which is performed in-house by another coach. Based on the first meeting and the meeting to form the second opinion, the coaches will afterwards fill out a snap-shot analysis of the company, considering both present and future abilities, of which the results is a “score” which must be comparable to other start-ups. After the second opinion has been formed and the snap-shot score considered a final decision is made, and if successful the newly accepted company can “Join” Ideon Innovation’s incubation process.\(^92\)

Companies which do not fulfill all criteria have the possibility to enter the pre-incubator at Ideon Innovation, where they receive less attention and service from coaches but are nevertheless in the incubation system. The pre-incubation time is

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\(^91\) Osterwalder & Pigneur (2010)  
\(^92\) Ideon Innovation internal information
limited to six months, after which the criteria must be fulfilled for a company to enter the ordinary incubator. 93

4.4 Business support

In the case of business support, the business developers at Ideon Innovation like to call themselves coaches instead of counselors, which was the term used in the theoretical framework. The business coaches refer to counseling as a more hands-on approach where the entrepreneurs are given concrete advice on implementation strategies, whereas coaching is characterized by asking the companies interrogative and open questions that do not reflect on the coaches own values and opinions. By not being assisted with direct answers and predications, the companies will early learn the importance of acting independently, preparing themselves for a life after the incubator. However, the incubator assists the companies with established facts regarding basic formalities, such as how to apply for patents, loans and grants etc.

The coaching approaches at Ideon Innovation are highly individual; this is partly because every business case is unique, but also due to the fact that several organizational changes have been made recently, and the management team is as good as new. There are some established models and process frameworks that are utilized in the selection/acceptance processes, but overall the coaching approaches are depending on who is coaching and which firm is to be coached. Until recently, each business coach was assigned one, or a few companies each, to which they were dedicated almost exclusively. This approach was deemed to be inefficient, so Ideon Innovation has now made the coach-entrepreneur relationship more open, by

93 Ideon Innovation internal information

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letting the entrepreneurs talk to several coaches, thereby utilizing the different coaches’ special qualities.

In the theory-chapter (chapter 2.2.1), three different approaches in terms of business support were discussed; Ideon Innovation would primarily fall into the category of proactive coaching in the sense that each business coach and their companies hold weekly or monthly check-up meetings. Other meetings are held upon the companies’ requests; hence the more spontaneous reactive approach is also visible. The coaching is both ongoing and episodic, as it is up to the companies to decide whether a spontaneous or a more scheduled relationship with the business coaches is to their liking.⁹⁴

### 4.4.1 Financial support

Through the interviews conducted, the authors have noticed that financing is an important matter for the coaches during the selection process; in fact, one of the most common reasons for a company to apply to the incubator is to get help regarding financing issues. The general perception among the management of Ideon Innovation is that most start-up companies have a visible or latent capital need, which they often discover too late, due to an insufficient understanding of their own capital needs and due to the fact that they are not aware of the different financing options available. The subject of financial planning is therefore brought up from the beginning, to clarify current and future need of external financing, and is part of the thorough review of the business plan, which is always performed. The authors have also noticed that in the snap-shot score, financing need is given a negative weight, resulting in less likelihood for accepting companies with higher financing need, *ceteris paribus*.⁹⁵

### 4.5 Mediation

Ideon Innovation provides the incubatees with a broad network of external actors; this is an essential part of their offer to the incubatees. A number of external actors were identified in the theoretical frame of reference, however this thesis will only consider those which affect the supply of external capital. Ideon Innovation has connections with financial institutions around Ideon as well as with the business angel network Connect Skåne. Among the public institutional investors, Innovationsbron is most relevant for the incubatees, mainly due to the geographical proximity to Ideon Innovation but also because they are one of few institutional VC-firms which provide early-stage capital and make relatively small investments.

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⁹⁴ Ideon Innovation internal information
⁹⁵ Ibid
Ideon Innovation does not provide its incubatees with information regarding private investors, nor do they arrange any meetings where entrepreneurs and investors can discuss business informally. They do however collaborate with Connect Skåne, a formal business angel network mainly operating in the Lund and Malmö area.96

4.5.1 Connect Skåne
Connect Skåne is an investor network involving approximately 150 members in the Skåne region. The members are of varying kind; some are still highly operative, whilst others are retired but wish to contribute to new business development in the region. A prerequisite for becoming a member is that the individual should have the ability to place investments of at least SEK 250 000 in total; however it is not a requirement for the members to make any investments at all.97

Connect arranges network meetings six times per year, where 3-5 entrepreneurs get the chance to present themselves and their business proposals each time. Before investment presentations, the entrepreneurs usually go through a process, which in this thesis will be called the Connect-process. It includes being assigned a mentor as well as attending a Springboard, which is a fictive board meeting where the entrepreneurs present and discusses their ideas with relevant people with varying backgrounds and competencies.98

Mentor
The mentor program provides the entrepreneur with an experienced business man/woman with whom the entrepreneur discusses the business plan and prepares for the Springboard-presentation. The mentor elevates strategically important questions, and suggests which types of questions are relevant to raise during the Springboard in order to extract as much new insights as possible from it.

The mentor typically meets the entrepreneur 2-3 times before the springboard, during the springboard itself, and then one last follow-up meeting. The total time of the Connect-process is usually 2-3 months.99

The Springboard
The Springboard is a central part of the Connect-process, and Ideon Innovation advice most of their incubatees to attend it. It is suitable for those entrepreneurs who feel that they are mature enough to make a full practice presentation of their

96 ibid
97 Connect Skåne <www.connectskane.se> 2012-02-05
98 Connect Skåne <www.connectskane.se> 2012-02-05
99 Ideon Innovation internal information
project. When this is the case, Connect gathers 6-10 people from the network to come and listen to a 15 minute long presentation, followed by a consultative discussion, which ultimately will make the entrepreneur ready for an upcoming market launch or further investor presentations. The experts have the ability to reject or verify certain ideas; hence the Springboard can be valuable to every entrepreneur, regardless of whether they intend to raise external capital later on or not.\(^{100}\)

\(^{100}\) ibid
This chapter presents the empirical findings from interviews with and a survey distributed among investors. The purpose is to reflect the investors’ views on the different aspects of the investment process in early-stage companies.

5.1 Introduction

To collect a substantial amount of relevant data the authors have conducted both in-depth interviews with a small population of investors and a survey, distributed among a larger population. The data will be presented in four categories: “General view of the investment climate in the Skåne area”, “The investment process”, “Venues for contact with entrepreneurs” and “Views on entrepreneurs”. Analysis of the data will be conducted after presenting all empirical data collected from investors, entrepreneurs and case studies.

The general request from the interviewed investors was that their identities would remain anonymous; therefore the authors have referred to the business angels as BA1-BA6 and the VC-firms as VC1-VC2. This notation was the best way for the authors to respect the investors’ request of anonymity and still keep transparency at a sufficient level by showing the different opinions one investor expresses throughout the empirics and analysis.

5.1.1 Population

Interviews

The authors have contacted several known investors active within the Skåne area and proposed an interview. A total of 15 investors were contacted, and 10 investors (67 per cent) answered positively at first contact. Because of limits in time and resources, as well as obvious scheduling obstacles due to investors with almost full schedules, the number of investors finally interviewed was 8 (53 per cent).

The investors initially contacted were found through contacts at Ideon Innovation and through alumni-companies from the incubator. This raises the question of biased interviewees, but the connections between the incubator and the investors were very vague and their involvement in the innovation system in Lund serves merely as good considering the topic of the interviews. Therefore, it was concluded
that a more unbiased choice of investors would probably not improve the quality of this thesis significantly.

**Survey**
As the survey was to be conducted early in the process of this thesis, it was important to reach the investors as quickly as possible. The fastest way to address a large number of investors was through a business angel network. As Connect Skåne is the largest network in Sweden and all its investors are based in the Skåne area, it was a natural choice. A total of 150 individuals are members of the network, however the survey was addressed to active investors, making the survey redundant to many of the recipients. The number of active investors is difficult to estimate, but after discussions with Connect Skåne and other investors it was decided that approximately 50-70 per cent of the network’s members are active, making the response frequency 20-30 per cent considering the 21 answers.

There is some possibility of homogenous answers considering the uniform demographics of the business angel network, but this type of investor is presumably also a majority of the whole population of business angels in Skåne, considering its definition:

“A high net worth individual, acting alone or in a formal or informal syndicate, who invest his or her own money directly in an unquoted business in which there is no family connection and who, after making the investment, generally takes an active involvement in the business, for example, as an advisor or member of the board of directors”

Another similar survey was also addressed to VC-firms, but with slightly different questions. Given that there is only a small number of VC-firms in the Skåne region and that their behavior is probably not dependent of their location, the authors decided to increase the number of recipients by sending the survey to VC-firms operating anywhere in the country. 7 responses were received out of 23 surveys sent, making the response rate 30 per cent.

5.2 General investment climate

5.2.1 Interviews
All investors seem to agree upon the fact that the capital for early-stage companies has decreased in recent years. The private investors feel that many of their equals

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101 Mason & Harrison (1994)
are less keen to invest nowadays, a fact that also has been recognized by the public venture capital firms interviewed. There is however also a general view of an upturn in the field of entrepreneurship, both when it comes to number of new companies and attention from government and media.

When dealing with early-stage investing in the Skåne area, a large part of the discussions will be focused around the Connect-process, of which many opinions are given. In general, the investors believe that the idea of the process is very good, they are overall extremely positive to the Connect-initiative and encourage more similar forums. However, while the overall idea of the Connect-process is positive, negative views are also often expressed. The average business angel in the Connect-network is significantly older than the average entrepreneur, and often lacks understanding of many new business models and phenomena, such as social media. These issues are however often compensated with a well-developed gut feeling. The business angel networks in Skåne are more active than in other parts of Sweden, but one institutional investor believes there are too much quantity and not enough quality when considering business angels, and also questions if they really have enough capital available to invest properly in early-stage companies.

Several investors interviewed point out that venture capital available is always cyclical, and at the moment many investors seem to be more risk-averse. Reasons to explain this include:

- Many investors have seen the high risk of investing in early-stage companies by own experience, i.e. they have lost money during previous investments. One investor mentioned a ratio of one successful investment out of twenty made during the early stages of a company.
- The Swedish stock market took a severe downturn during the early autumn of 2011, which still affects many wealthy individuals who are potential business angels in early 2012.
- Many foreign tax laws, such as American and British, are encouraging venture capital investing, but Swedish tax laws are not.

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102 BA1 & BA2
103 VC1
104 BA4
105 VC1
106 BA4

- 55 -
see this as a key issue to encourage entrepreneurship in Sweden in the future.

A last interesting point of view is from a business angel who believes it is vital that capital is not too accessible. Searching for capital make the entrepreneurs evolve and it puts pressure on them; finally only the entrepreneurs fitted to run a successful company will succeed in raising capital.

5.2.2 Survey answers
The purpose of the first question presented was to obtain a view of how active the business angels anticipate themselves to be in the near future. The question was only directed to business angels as venture capital-firms are expected to always be interested in making investments if the circumstances are right.

The answers to question 1 show the anticipated new investment activity from the business angels who have been contacted. As only 10 per cent are considered not interested in making new investments at all, the sample of business angels who performed the survey are probably of the active kind. However, the adverse investment climate is also reflected in this question, as only 14 per cent claim to be very positive to new investments, while a vast majority of 76 per cent is only interested if a special opportunity arises.

107 ibid
108 BA2
To understand which type of companies the approached investors are interested in, a question regarding the phase of their latest investment was included as question 2. The well-known phases defined by the European Venture Capital Association were used for consistency. As each investment process is unique and the fact that it is difficult to make general statements, the question is regarding the most recent investment to give a snapshot of the investments at the moment.

According to EVCA's classification, in which phase would you place your most recent investment?

According to the answers to question 2, business angels are more likely to invest in the early stages than the VC-firms, a statement which is consistent with general theories and interviews conducted. The question also shows that the answers received by the investors are of great relevance for this thesis, especially answers from business angels, as several companies involved in the incubation process are in the start-up and post-creation phases.

5.3 The investment process
5.3.1 Interviews
The investment processes are almost unique each different time, according to the investor interviews. It depends on several different parameters, such as investor, entrepreneur, industry, development-stage of company etc. If the authors were to make a generalization when summarizing the interviews, although a very broad one, it would be the following:

- 3-8 meetings from first contact to completion of investment
- 3-6 months duration
- The process consists of two phases which are similar in length and number of meetings:
  1. To get to know each other (“Almost like dating before getting married”\(^{109}\))
  2. Discuss deal structure and valuation
- The bigger the company, the more extensive due diligence is made

An interesting finding from the interviews is that the investment processes in general are of the same length regarding both VC-firms and business angels. When considering the larger deal sizes and the fact that VC-firms’ investment managers are investing other people’s money, this finding is surprising to the authors who earlier believed that the business angels were involved in faster processes. Reasons can however be several, e.g. that the VC-firms’ investment managers of course have a larger experience of making investments than the average business angel and might therefore be more effective. The increasing risk-aversion among business angels is another explanation.\(^{110}\)

When it comes to the investors’ general view on the entrepreneurs’ presentations it seems as they believe the entrepreneurs’ are well prepared, especially those who have previously attended a Springboard at Connect. However, the investors find the overall company valuations and the projected future revenues to be unrealistic, given that there is usually no evidence of market success at the moment of a presentation. One of the business angels means that somewhat unrealistic valuations can be a sign of determination and high expectations, but often they seem to increase the gap between the investors and the entrepreneurs even more.\(^{111}\)
5.3.2 Survey answers
A question regarding the entrepreneurs’ presentation skills was included in the survey as question 3, to hopefully gain knowledge of how the entrepreneurs can improve their presentations and what investors believe to be of great importance when attending a presentation.

With your experience from presentations by entrepreneurs, how would you grade their performances regarding following aspects?

High ratings of aspects such as commitment, preparations, and product description are not surprising, given the entrepreneur’s anticipated affection of his/her own product. The survey shows that improvements can be made regarding realism of projected future revenue, the marketing plan as well as body language, especially if business angels are the target investors for an entrepreneur.

5.4 Venues for contact with entrepreneurs
5.4.1 Interviews
The private investors did not express any specific preferences regarding venues for contacts according to the interviews; however they argued that investments are made when entrepreneurs are matched with the right investors which can be facilitated through angel networks, private contacts and other forums. It seems as though business angels are very pleased with the angel networks, and that more forums of the same kind would hopefully increase deal generation and in the end result in a larger market for early phase venture capital. The investors were also very positive to the idea of arranging more informal meetings in close connection to a business incubator. One investor claimed that informal meetings are not
serious enough to create deals\textsuperscript{112}; however the general perception was that any type of meeting could create the bonds necessary to take the discussion further to a more formal level.

According to the public VC-firms, the entrepreneurs or other investors who wish to make a syndicated investment usually contact them. They receive a great deal of applications; hence it is less important for them to actively seek entrepreneurs or to participate in various forums.\textsuperscript{113}

5.4.2 Survey answers

The purpose of question 4, shown below, was to establish how the investors got in contact with the entrepreneurs, to be able to understand which types of networking are actually generating deals. The question allowed the recipients to pick several different contact venues; therefore each alternative could potentially reach 100 per cent.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{question4.png}
\caption{How did you first get in contact with the entrepreneur?}
\end{figure}

The VC-firms have a very fragmented deal generation according to the answers of this question, and the business angels’ answers are dominated by network meetings and private contacts.

A logical follow-up question to question 4 is presented as question 5, regarding how investors would like to be contacted in the future. The obvious purpose of the question was to gain vital information regarding the investor-entrepreneur relationship from the investors’ point of view.

\textsuperscript{112} BA2
\textsuperscript{113} VC1 & VC2
The answers to question 5 are very similar to the previous question, however they indicate that business angels would prefer less deal flow from its network meetings and more from private contacts and incubators, although the difference is not significant. Question 5 is the question with highest probability of biased answers due to the participating type of investor, as the business angels answering are all involved in a business angel network. The figure of how many business angels that would like to be contacted through network meetings in the future would most likely be lower, had the survey been answered by all business angels in the Skåne area.

5.5 Views on entrepreneurs

5.5.1 Interviews

The investors were asked what aspects they evaluate in an investment situation and what their general view is of entrepreneurs. The answers varied widely; however, both the VC-firms and the business angels agreed that the single most important aspect to consider in a potential investment negotiation is the entrepreneur or the team itself, which is on par with the survey results to the question “how important do you consider the following aspects regarding a future investment”, presented as question 7 below. One business angel even said that 50 per cent of the success of a company is a result of its management team, while the remaining 50 per cent is related to the product, business model, strategy etc. Further, he meant that the role of the entrepreneur is likely to continue to grow in the future as younger people
make exits; creating a market of business angels that will rely more on faith in entrepreneurs and business ideas than on economical calculations.\textsuperscript{114}

The overall answers, both from the interviews and surveys, indicated that investors rank entrepreneurial commitment/drive above all other aspects. One of the interviewees argued that an entrepreneur who shows confidence in the idea/product has created a major head start.\textsuperscript{115} The majority of the interviewed investors are in favour of entrepreneurs who try to get their product to the market as fast as possible, partly to demonstrate their drive, but also to assure the buoyancy of the idea and thereby reducing the investor uncertainty. One investor stated that the evidence of one existing customer may double the value of the company; this was based on the belief that one customer can easily be transformed to several, whereas an idea or a technology alone is worth basically nothing before it is implemented on the market.\textsuperscript{116}

The interviewed business angels and VC-firms were not that diverse in their views on the entrepreneurs, except that the business angels claimed to use a more ad hoc approach when deciding on which companies to invest in, whereas the VC-firms use a more systematic approach. Business angels do not seem to have a unison view of the ideal entrepreneur, which is the case for VC-firms who usually require the entrepreneur to possess the following characteristics previous to the investment.\textsuperscript{117}

- Product in place
- Evidence of interested customers
- Large market size (preferably global)
- Scalability
- A good team
- Have gone through 1-2 investment rounds prior to the current investment.

\textbf{5.5.2 Survey answers}

An important issue regarding research question 2 (stated in chapter 1.2), is how the investors believe themselves to contribute to the company as major shareholders. The answers are presented as survey question 6, which corresponds to question 11 in chapter 6.2 which describes the entrepreneurs’ expectations and opinions of the investors in hindsight.

\textsuperscript{114} BA2
\textsuperscript{115} BA1
\textsuperscript{116} BA3
\textsuperscript{117} VC2
Question 6 (1: Low, 5: High)

Business angels feel they contribute most with strategic competence, followed by capital and with management skills slightly below. VC-firms rate their capital, management skills, strategic competence and network contacts almost equal, with technical competence far below.

To understand what the investors consider important when evaluating a company, question 7 tries to clarify this matter by making the investors rank several different aspects concerning a company and its entrepreneurs. Possible discrepancies between investors and entrepreneurs will be illustrated in chapter 6.2 as survey question 10.
The entrepreneur/the team are by far the most important aspects for investors, followed by the business model and the product. An interesting result is that the product, its market and the business model are more important to business angels than to VC-firms, which in turn believe existing customers and proper future projections are vital.
As the authors, based on discussions with Ideon Innovation’s management, saw early indications during this thesis of the outcome of question 7 (i.e. that the entrepreneur himself/herself was the most important factor), a follow-up question regarding the entrepreneur’s characteristics was included as question 8.

**Question 8 (1: Low, 5: High)**

The more soft characteristics of an entrepreneur are more important than his/her CV or competence, according to question 8, which is consistent with general theories and interviews.
This chapter presents the findings from a survey distributed among entrepreneurs. The purpose is to reflect the entrepreneurs’ views on the different aspects of the investment process in early-stages of a company.

6.1 Introduction
As mentioned, this chapter will only present the most relevant data collected from a survey distributed among entrepreneurs. The data collected from interviews with entrepreneurs will be presented in the next chapter, the seventh, in the shape of case studies. During those interviews data was gathered that could be suited for this chapter, but to avoid further separation of data, the interviews will be presented in the next chapter. Analysis of the data will be conducted after presenting all data collected from investors and entrepreneurs as well as the case studies.

6.1.1 Population
The online survey was sent to all companies which have made an exit from Ideon Innovation (i.e. alumni-companies), as well as to a few currently enrolled companies that have already been involved in raising funds from external investors. The strategy of choosing only entrepreneurs with connection to Ideon Innovation was based on two aspects; limited time and resources, and the fact that several questions were regarding Ideon Innovation specifically. The number of companies which received the survey was 45, from which 12 responses have been collected, making the response rate 27 per cent. The reasons for the moderate response rate can be several, e.g. a recent change of management, bankruptcy or to the company not applicable survey questions (i.e. regarding venture capital).

6.2 Survey answers
The purpose of the first question towards entrepreneurs, question 9, was to establish how the entrepreneurs got in contact with their investors, to be able to understand which types of networking are actually generating deals. Question 9 was a suggestion from the staff of Ideon Innovation to be incorporated in the survey, as they had been pondering over this issue.
According to the answers to question 9 there is no dominating contact way; the chance of being approached by the investors seems however to be a little less likely than the other alternatives.

How important do entrepreneurs think the following aspects are to investors? (Complemented with the investors’ answers)

Question 10 (1: Low, 5: High)

- 68 -
The graph above illustrates the answers to survey question 10. Investors were in question 7 asked about which aspects they consider most important, these answers are now showed in relation to entrepreneurs’ anticipation about how investors value these aspects. Overall, the answers to question 10 were somewhat homogenous, but a distinct difference can be deduced in how the entrepreneurs perceive the importance of the product and an existing market for the product. An explanation to this can of course be as simple as the fact that the entrepreneurs have emotional attachments to their products and therefore value it highly. Another interesting result is the entrepreneurs’ high rating regarding future projections, which importance to investors they seem to have overestimated.

### Most important reasons for raising capital?

The most important reasons for raising capital for the interviewed entrepreneurs are presented in question 11. The main answer was the capital itself, with strategic competence and network contacts slightly below (blue column in question 11). The entrepreneurs were also given the chance to reflect in hindsight over the investors’ contribution (red column in question 11), which afterwards did not seem to fully meet the entrepreneurs’ expectations.
Among the respondents to question 12, 42 per cent found the process satisfying enough regarding pace and flexibility. 25 per cent did not find the process satisfying enough to fulfill their capital need, while 33 per cent did not participate in any of the stages of the process.

Would you be interested in more informal contact with investors through for example Ideon Innovation?

- 70 -
The last question from the survey, presented as question 13, was one regarding venues for contact with the investors. Early indications from the management of Ideon Innovation suggested that most investor-entrepreneur interactions are taking place in connection to a Connect-event, which ignited the idea of informal meetings or events at the incubator. According to the answers to this question, many of the entrepreneurs are also interested in the idea.
The following chapter will show the results from in-depth interviews with alumni-companies at Ideon Innovation and their experiences of financing issues. As both the survey and the interviews with investors have been held on a more general level, the purpose of this chapter is to gain a deeper understanding of how financing needs can be tackled in different ways.

7.1 Introduction

As each investment process is more or less unique, it is difficult to draw conclusions and identify important events from a process without making a thorough analysis of each investment. With this in mind, the authors chose to conduct case studies, which made it possible to review the history of the companies and the specific circumstances of each investment. In-depth interviews were held with each company and involved their business history and main milestones, with focus on financing issues. The objective of the case studies was to interview companies with different success both in terms of raising capital and in terms of general business performance.

7.1.1 Population

To be able to fulfill one of the main objectives of the thesis (recommendations to Ideon Innovation), the authors chose to look at all former companies at Ideon Innovation, the alumni-companies, when choosing the companies to focus on. Selecting companies that had previously been a part of the incubator made it possible to in retrospect analyze their time at the incubator regarding coaching and discussions on financing options, networking and the contact with investors. A total of 42 companies were part of the initial population of alumni-companies.

7.1.2 Parameters of relevance

When selecting case companies it was decided to segment the total population into subgroups, and a number of parameters were analyzed in order to choose which ones would be relevant for the purpose of this thesis. The following quantitative parameters were considered:

- Revenue last year
- Total revenue last five years
- Number of employees last year
- Earnings before interest and tax expenses (EBIT)
- Profit
- Amount of capital raised from external investors in a first-round issue
- Total amount of capital raised from external investors last five years

One of the objectives of the parameters was to show how successful the companies have been in raising external capital. To give more than a snap-shot, the last parameter in the list was chosen; total amount of capital raised from external investors the last five years. This way the views of companies with different success in raising capital were collected. The other parameter was chosen to show a more general performance of the company, and to also reflect which type of phase the company is in. In early-stage companies earnings are often negative, why EBIT and profit were neglected as parameters. The number of employees can be a useful parameter to measure performance and give an indication of phase/stage, but it can also vary to a great extent depending on firm or industry, hence revenue was chosen as the second parameter. Revenue during only the previous year was deemed to be the most appropriate, since this “snap-shot parameter” gives less credit to companies with declining revenues and therefore a fair view of performance according to the authors.

The segmentation is shown graphically in figure 21.

![Figure 21: Segmentation procedure of alumni-companies from the incubator.](image)

### 7.1.3 Selecting companies

After collecting and analyzing data from all alumni-companies, the companies were divided into the four previously described groups. The key amounts of revenue and external capital, which would separate the companies, were decided to be SEK 4 million and SEK 10 million. These numbers were not based on any
mathematical calculations, but merely on appreciations the authors made together with the employees of Ideon Innovation. They were deemed to be appropriate in regards to what can be valued as “high” revenue, amount of capital raised and to the number of companies in each group. Companies with revenue last year of SEK 4 million or above were put in Group I and Group II, and the ones with less revenue in Group III or Group IV. Therefore, one can expect companies in Group I and Group II to be at a later stage of development than the others. Companies, which had raised SEK 10 million or more over the last five years, were put in Group III or Group II depending on their revenue, and consequently the other companies in Group I or Group IV. After plotting the results, the number of companies in each group was satisfying and the groups were set. The following graph was drawn (figure 22).

Figure 22: Graph of alumni-companies based on revenues and share issues

Out of these four groups, the objective was to make at least one case study per group. The constraints were several, limited time and resources were combined with difficulty in establishing contact with the companies, making it difficult for the authors to decide for themselves which companies to choose. However, the goal was achieved and surpassed, resulting in five case studies. The companies studied were as desired from all four groups, and from different industries. The

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118 Retriever Business <www.retriever.se> (authors’ calculations from annual reports 2005-2011)
following table shows an overview of the studied companies.

<table>
<thead>
<tr>
<th>Group</th>
<th>Company</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>Cognimatics</td>
<td>ICT</td>
</tr>
<tr>
<td>Group II</td>
<td>Bioprocess Control Sweden</td>
<td>Biogas</td>
</tr>
<tr>
<td>Group III</td>
<td>Medtentia</td>
<td>Med-tech</td>
</tr>
<tr>
<td></td>
<td>Zaplox</td>
<td>ICT</td>
</tr>
<tr>
<td>Group IV</td>
<td>Anify Networks</td>
<td>ICT</td>
</tr>
</tbody>
</table>

Table 3: Grouping of chosen companies for case studies

7.2 Cognimatics

7.2.1 Introduction
Cognimatics is a company working with cognitive vision, and has risen to be a world leader within the field. The company offers innovative software imaging products for the retail industry, products used for what they call “Intelligent Surveillance”. The products can for example count persons passing through a predefined area, count faces and how long they look into a camera or count traffic to and from a parking facility. Cognimatics was founded in 2003 by a former entrepreneur who was a professor at the department of mathematics at the Institute of Technology at Lund University, specialized in cognitive vision. The professor’s background is especially interesting to this case study, as he had previously started a successful company which had raised a significant amount of external capital. Cognimatics is the only company in the case studies which have not raised any external venture capital at all (only grants and loans) during its first eight years, yet it is perhaps the most successful of the case study companies with a solid cash-flow and positive result.\footnote{Morän, Håkan 2012-01-31}

7.2.2 The non-investment
The founder of the company had previously run another company, but had negative experience from investors and external capital, therefore the management decided to go on without searching for capital. The solution was to first develop a simple product within mobile-applications, which became the company’s cash-cow during
the first years, while developing their main product for the future. The management went to a large, multinational company in the region, Axis Communications, and simply asked what kind of product they could use within the field of cognitive vision. A product which was easy for Cognimatics to develop was decided upon. Making a large company a strategic partner early was key to keeping the costs low, as building sales distribution channels can be very expensive. All Cognimatics’ sales-contacts are through internet and phones, and Google stands for 90 per cent of all marketing costs.

Another key issue in “avoiding” venture capital was the successful grants applications. Grants have been part of Cognimatics’ revenue all years except one, and sum up to a total amount of over SEK 4 million. The management is familiar with the application process and knows what the grant-providers want to see; often a company close to the stage of commercialization, which has begun to make sales. With regards to this, Cognimatics’ early cash-cow product was perfect.

Generally the management of Cognimatics see an advantage in not letting outside investor join as shareholders. Their opinion is that the shareholder agreements are very unfavorable for the entrepreneur and make the entrepreneurs lose their freedom and total control of the company.\textsuperscript{120}

\subsection*{7.2.3 The time at Ideon Innovation}

The reason for moving to Ideon Innovation was mainly the favorable rent. The management of Cognimatics consisted of experienced entrepreneurs or people very familiar with the innovation system in Lund, which meant the need for coaching regarding business development and financing options was limited. Cognimatics did not participate in the Connect-process due to the non-existing search for external capital.\textsuperscript{121}

\subsection*{7.2.4 Attitude towards venture capital}

Cognimatics is actually, in relation to research question number three (stated in chapter 1.2), not applicable to any of the two types of companies the authors set out to find, as they have not been successful in raising capital, but at the same time they have not \textit{not} been successful. This is due to their adverse attitude towards external equity capital. This was a type of company not expected to be found by the authors, and Cognimatics’ views were discovered at first during the case study. However, there are still important take-aways from Cognimatics to be discussed.

\textsuperscript{120} Morän, Håkan 2012-01-31
\textsuperscript{121} ibid
7.2.5 Key take-aways

- Has developed a successful and relatively large company without external investors, due to several reasons:
  - At first, developing a cheap and simple product to produce and maintain a cash-flow
  - Low development cost for main product
  - “Clinging to” a large regional company and developing a strategic partnership which means no cost for building own sales channels
  - Several successful grant applications
- Believe external investors prevent development of the company with unfavorable shareholder agreements
- Strong opinions about how “unclear” the innovation system in Lund is, with too many actors according to management

7.3 Bioprocess Control

7.3.1 Introduction

Bioprocess Control is a biogas company, founded in 2006 after several years of prior research at Lund University. They offer a portfolio of products, all of which support the efficient design and operation of biogas plants and processes.

The company’s integrated and customised optimisation approach has received multiple innovation awards, which in turn has generated seed money as well as valuable PR. As one of very few companies which have managed to take an idea all the way from research to commercialization on their own, Bioprocess Control can be considered a success story.122

7.3.2 The investment

Initially the company did not have a great need for external capital; they were able to continue the research with the money from various award-wins and from contributions made by the founders. When they were accepted to Ideon Innovation in 2006, they worked very hard to extract all of the grants that were possible to extract from the innovation system.

In a very early phase, they attended the steps of Connect-process, and ended up arranging private meetings with a few interested business angels. Two of them invested shortly thereafter, and according to Bioprocess Control, this was due to

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122 Liu, Jing 2012-01-24
the drive of the entrepreneurs, supported with the legitimacy achieved from the various award wins.

Until 2009, the company had gone through a survival stage, more or less, and they had to rely on the seed money from the owners and a few smaller loans. During this period they did have several interested VC-firms, however these actors were too large at the time, and they would probably require a large return while having an exit strategy that would not be advantageous for Bioprocess Control. The management generally thinks that Swedish companies are valued far below their true potential, especially compared to American and British companies. Despite this argument, they sold the majority of the business to an industrial buyer; a large Dutch company in the end of 2009. One of the reasons for the deal was the fact that Bioprocess control wanted to be exposed to the global market.¹²³

7.3.3 The time at Ideon Innovation
Ideon Innovation provided the company with a great working environment, competent business coaches and a broad network that would help Bioprocess Control gather seed capital from many different sources. The company thinks that the process of raising capital from public institutions is very inefficient and time consuming. Despite this argument, they think the innovation system is working well in the sense that bad ideas are screened out early on, and this learning process is important to go through. At the same time however; some really good ideas do not get the proper attention and support they deserve.¹²⁴

7.3.4 Key take-aways
- A successful Connect-process in an early-stage
- Used their entrepreneurial awards for PR towards investors in a successful way
- Has the only industrial owner of the case studies

7.4 Medtentia

7.4.1 Introduction
Medtentia was founded in 2002 and is a med-tech company, which is developing a small medical device for minimal invasive cardiac valve surgery. Unofficially, the entrepreneurs behind the idea started their research in 1999, yet they found it not suitable to register the company until 2002 when they had a granted patent in place.

¹²³ Liu, Jing 2012-01-24
¹²⁴ Ibid
The research within the field was widely unknown (and still is), and few people could relate to the technology, which made attracting investors a major obstacle. However, the entrepreneurs managed to show the large potential of the product and the future returns it would imply, which kept the investors interested despite their lack of understanding. In total, Medtentia has raised over SEK 40 million in capital from external investors, both public and private VC-firms.125

7.4.2 The investment

Medtentia understood early on that they would need an extensive amount of capital in order to be able to pursue the capital-intensive research. With the patent granted they contacted public VC-firm as well as a private investor with med-tech experience, and successfully offered a share in the company in return for capital, knowledge of running a business, and most of all to get introduced to the large network of investors possessed by the VC-firm. A year later, in 2003, a larger capital need appeared and with the help from the public VC-firm, Medtentia was introduced to several other medium sized VC-firms. Apart from the patent, they had a business plan and a small demonstration device, but not yet a representative prototype. What characterizes the med-tech industry is the long product development cycles and the large potential, and the latter one is usually the reason for investor decisions.

The company ended up with three new investors and received the capital injection a little less than a year after the first meetings, which is a long but not unusually long time, especially not in this particular industry.126

In 2005, the first prototype was ready, but unfortunately it failed on the endurance tests. This was a major setback; not the least did it discourage new investments necessary for further research. In 2006, they had managed to develop a successful prototype, but the current owners were not able to put in more money; hence causing another large setback. The coming year was financed through loans, but in 2008 they finally made an agreement with a large investor after a very thorough due diligence.

Medtentia says that locating investors and preparing for investor presentations has required one full-time employment alone. As soon as one investment round is complete, they start preparing for the next. The med-tech industry is generally

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125 Keränen, Olli 2012-01-13
126 Keränen, Olli 2012-01-13
extremely dependent on large amounts of capital, which makes this knowledge useful for all med-tech companies.  

7.4.3 The time at Ideon Innovation
Medtentia entered Ideon Innovation in 2004, mainly to be able to access the network, the favourable rent, and the good working environment that it had to offer. Disappointingly, they did not get any synergy effects from the other companies enrolled, due to the complex nature of their product. Looking back on the time in the incubator, they think it was a good environment to work in, but if they were to change anything they did back then, it would be to build up contacts with potential investors earlier on. For them, getting investments was and still is the most crucial part of the business, and after having gone through a countless number of investment processes, their advice is to take whatever money you are offered. The knowledge can be acquired from consultants and other advisors. Medtentia has not participated in the Connect-process, simply because they cannot offer such large amounts of capital.  

7.4.4 Key take-aways
- Because of the large potential in the product, the company managed to raise capital despite the lack of characteristics that are usually essential to investors
- Ongoing search for new investors was a necessity to secure current and future capital need
- After having experienced a few setbacks, they realized the importance of focusing on the capital part of the investments; knowledge could be acquired elsewhere

7.5 Zaplox

7.5.1 Introduction
Zaplox was founded in the autumn of 2010, and is a company which provides mobile keys to hotels, workplaces and in the future hopefully also homes. The basic idea is to give regular locks the opportunity to be opened with the mobile phone, with help from an electromagnetic device applied to the current lock. The technology is different from its competitors’, which use NFC-technology instead of the mobile network. In the end of 2011 Zaplox raised SEK 10 million in its first

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127 Keränen, Olli 2012-01-13
128 Ibid
round of investments from external investors, consisting of two large institutional investors.\textsuperscript{129}

7.5.2 The investment

Zaplox started the search for external capital from day one, and went to several presentations and meetings. The meetings did not result in any investment, but made it clear that the strategy of Zaplox’s commercial stage was not right, and they revised their strategy. This was a vital event in the process; the key questions asked at the investor presentations lead to a revised strategy, which later became very attractive to investors. Zaplox themselves also recognized the fact that even though the early meetings with investors were unsuccessful, they were vital for the learning process. Not only did they learn to talk the way investors wanted, they also revised their strategy to increase the attraction from investors in a successful way. In November 2011, almost a year after they met for the first time, the public VC-firm Industrifonden invested SEK 10 million together with another VC-firm, LMK Invest. At this moment, Zaplox had already managed to gather a board of directors and had filed three patent applications. Another vital advantage was a distribution agreement, which had already been signed with a customer, a risky move considering they had not been able to fulfill the agreement unless they had received external capital.

Zaplox was fortunate enough to choose from two different investor collectives, two larger VC-firms in one collective and Innovationsbron together with business angels in the other. The reason for choosing the former collective was that the larger VC-firms are more capable of investing more capital in a second round, as well as having experience from helping companies with international expansion.\textsuperscript{130}

7.5.3 The time at Ideon Innovation

The motivation for moving to Ideon Innovation was the incubator’s office space, basically just because Zaplox needed an office. However, in hindsight Zaplox believe their credibility towards investors was increased by the fact that they belonged to Ideon Innovation. Discussions with coaches regarding financing options were held, but with the management’s extensive experience the discussions were probably redundant.\textsuperscript{131}

\footnotesize{\textsuperscript{129} Gripwall, Stefan 2012-01-19  
\textsuperscript{130} Gripwall, Stefan 2012-01-19  
\textsuperscript{131} ibid
7.5.4 Key take-aways

- The search for external capital was a learning process not only for financing concerns, but also for the business model in general
- A very long process, 11 months, but ended up very successful instead
- Long-term planning when choosing their investors by thinking about future financing needs
- Knew the importance of commercialization, and signed a distribution agreement before the investment, although they would not be able to fulfill the agreement without the investment
- Within one year Zaplox both got rejected at a business angel network-meeting and signed the deal for raising SEK 10 million from two VC-firms, showing how fast the situation can change

7.6 Anyfi Networks

7.6.1 Introduction
Anyfi Networks was founded in 2005, with consultancy within software engineering as their primary business idea. When entering Ideon Innovation in 2007, they still had the ambitions to build a strong consultancy company, but while at the incubator they started working on the embryo of a product, which today constitute their core business. They were able to finance their early years through revenues from the consultancy business, however they applied to Ideon Innovation in hopes of being introduced to external actors providing risk capital for future needs.

In 2009, they lost a few of their major consulting projects, which resulted in the shutdown of this business, transferring all of the focus onto the new product. They were left with a need of new cash-flow and began their search for investors.132

7.6.2 The investment
Through private contacts and earlier employments, they found an investor who understood the technology and was willing to invest a small amount of money. Through him, a few additional investors who believed in his judgment joined the team and formed an advisory board, where they made an agreement to help secure the short-term cash-flow for the company. Apart from supporting with capital, the purpose of the appointed advisory board was primarily to provide the company with a contact network, strategic competencies and counseling.

132 Smedman, Björn 2012-01-12
The management of Anyfi likes the idea of having many small investors as opposed to one larger, due to the flexibility and the faster investment processes they entail. At the time of the smaller investments the company did not have a ready-to-launch product, but they did have a clear idea and a granted patent at hand.\textsuperscript{133}

7.6.3 The time at Ideon Innovation

When Anyfi Networks applied for Ideon Innovation, they were focusing almost entirely on their consultancy business, which was running well without the help of Ideon Innovations’ business coaches. In retrospect they regret not utilizing more of the incubators resources. They realize now that they spent a lot of their time trying to raise capital from the innovation system, when in fact this time could have been used to develop the new product. Furthermore, Anyfi thinks the incubator provided a stimulating climate for peer-to-peer networking, where experiences and contact networks could be shared.

While in the incubator, Anyfi attended the Connect-process, with only an embryo of a product and a short PowerPoint presentation. There appeared to be an interest among business angels, however the company had not had any contact with customers nor did they have any previous investors, so when it came down to negotiation they received proposals that were far below what they expected; hence they could not reach a desirable agreement. Anyfi means that both the investors and the company acted rationally, and that the asymmetry in the very early stages creates a gap that is hard to overcome. The management thought the Connect-process, and especially the Springboard, was a good means for practicing and getting the idea evaluated. However, they did find it rather time consuming and inefficient, considering that the company had a consultancy business with cash-flow every month, making the alternative cost high.\textsuperscript{134}

7.6.4 Key take-aways

- Running a consultancy business was a great revenue stream for Anyfi, and it made it possible to develop the new product without external shareholders
- Many small investors with relevant competencies were deemed to be more suitable than one or a few large investors. This also enabled a very fast investment process

\textsuperscript{133} Smedman, Björn 2012-01-12
\textsuperscript{134} Smedman, Björn 2012-01-12
• Spending too much meeting different investors in the innovation system was inefficient, considering that the time could have been used to focus on developing the product further
• Anyfi acknowledges that despite both sides acting perfectly rational, no investments were made after negotiations with investor at an early-stage; implying a financial gap

7.7 Cross-case analysis

<table>
<thead>
<tr>
<th>Industry</th>
<th>Anify</th>
<th>Medtentia</th>
<th>Zaplox</th>
<th>Bioprocess Control</th>
<th>Cognimatics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (MSEK) (2010)</td>
<td>1.7</td>
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<td>18 (2011)</td>
<td>11 (2011)</td>
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<td>8</td>
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<td>Serial entrepreneur?</td>
<td>X</td>
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<td>7 800 000</td>
<td>10 000 000</td>
<td>1 300 000</td>
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<td>Status at time of first investment: Patent</td>
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<td>X</td>
<td></td>
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<tr>
<td>Prototype</td>
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<tr>
<td>Product</td>
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<td></td>
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<td>n/a</td>
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<tr>
<td>Board of directors</td>
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<td></td>
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<tr>
<td>Customers</td>
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<td>n/a</td>
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<tr>
<td>Years since start</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>n/a</td>
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<td>Investors: Type</td>
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<td>How many more rounds?</td>
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<td>Total capital raised</td>
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<td>48 000 000</td>
<td>10 000 000</td>
<td>14 000 000</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 4: Cross-case analysis of chosen alumni-companies.\(^{135}\)

The lower amounts of capital injections have been provided by business angels and the higher by venture capital-firms, as suggested in literature and findings from surveys and interviews. The business angels do not seem to be able to make second round investments, as the companies which have performed second rounds of

\(^{135}\) Interviews with case companies
investments have VC-firms as shareholders. Regarding the status at the time of the first investment, one can see that Medtentia and Zaplox had more things ready at the time, and they were the once receiving capital from VC-firms. This may be due to the fact that VC-firms invest in companies that are more mature, as suggested in the theory. It might also be a coincidence, considering that only five companies have been studied.

Syndication of investments is standard according to the case studies; not unexpected considering the number of advantages syndicated investments imply, discussed in chapter 3.2.1.3. None of the case companies have been involved with a solo investor.

Furthermore none of the companies have established their contacts with the investors through Ideon Innovation. The contact ways have instead been different, ranging from previous colleagues to approaching institutional investors themselves.

The difference between Cognimatics and the companies which have raised capital, are not significant; the choice of not having outside investors is based on their own negative attitude towards investors, which is probably the greatest difference between them and the other companies. Other deviations Cognimatics show are their initial cash-cow product and their ability to receive substantial amounts from grants.

The number of years until the initial investment have also differed between the companies, however with a probable explanation. Three companies raised external capital during their first year, the other two (Anyfi and Cognimatics) waited several years, and in Cognimatics’ case, they still manage without outside investors. The difference between the two groups are an initial cash-cow, in Anify’s case their consultancy-business and in Cognimatics’ their mobile-application product.

A few but important conclusions can be drawn from the case studies.

- A simple product in the early-stages can act as a cash-cow and relieve a lot of pressure from product development or sales of the main product. The crucial need of early investments from external capital can also be reduced
- The search for external capital can be an important part of general business development
- The opinions of the innovation system in Lund are unison; the number of actors are too many and their functions unclear
8 Analysis and recommendations

In this chapter the collected data will be analysed with the aim of answering the problem statements; hence fulfilling the purpose of the thesis. The analysis will be followed by a set of recommendations for Ideon Innovation and its incubatees, which will be presented in a phase by phase chart.

8.1 Introduction

The analysis will combine all the previous findings, and together with new theory, present plausible explanations to the interviewees’ and survey respondents’ answers, and why there is a possible financial gap in the venture capital market. The structure of the chapter will be similar to the one used when presenting the interviews with the investors, i.e. it will follow the four sub-headlines investment climate, investment process, venues for contact and the investor-entrepreneur relationship.

8.2 Analysis of data collected

8.2.1 Investment climate

8.2.1.1 Explanations to the declining market of venture capital

The empirical studies have shown a general perception of the investment climate as being consistent with the news cited in the first chapter; the investment climate in the early-stages is “dry”, it is difficult for companies to raise external capital. The availability of capital is believed to be cyclical, and is now at the low end of the spectrum\(^{136}\). The difficult task is to explain why, and a discussion will now follow regarding several explanations from the findings of this study.

A very simple explanation has been brought forward; there is not enough capital. The surveys showed that VC-firms do not invest often in the early-stages, and during interviews several opinions regarding the business angels’ wealth not being large enough have been discussed, especially business angels involved in the Connect-process. As the Connect-process is the most important meeting place for business angels and entrepreneurs, the possibility of entrepreneurs not meeting enough wealthy business angels cannot be discarded. Survey question 1 showed that 14 per cent of the business angels are very interested in making new investments; whilst the vast majority is only interested if a special opportunity arises. With this in mind there might be reason to think that the true number of active investors in the Connect-network might be overstated.

\(^{136}\) BA2 & BA5
Another interesting finding, which is also discussed in studies on investment relationships\textsuperscript{137}, is that the distinction between entrepreneurs and private investors can be very vague; this is especially the case when investors become involved in the running of the company very early. Interviews further suggest that there are several individuals, who do not consider themselves investors, but they have the money to invest, and do so if they stumble upon the right projects. If this is the case, the investor market could instead be potentially larger than what is visible. This insight can make up a good reason for entrepreneurs to seek investors more actively, inside or outside network meetings, but most importantly, not only through networks arranged for official business angels.

The more probable explanation is however not explicitly about the supply of capital, but the interactions between the supply and demand sides. Two of the points mentioned in the investor-chapter in the empirics, will here be complemented with findings in other research.

- Many investors have seen the high risks of investing in early-stage companies by own experience, i.e. they have lost too much money during previous investments, and are at the moment not willing to take the high risk involved in these type of investments. This high risk can be put in numbers when looking at previous research of this subject. The default rate for companies receiving seed and early-stage capital is despite the capital injection 50 per cent and the returns on the investments in those stages are as low as 2.3 per cent.\textsuperscript{138} With these figures in mind, there is a great likelihood that investors who have been “burnt” in the early-stages of financing, return to safe havens when making new investments.

- Several investors mentioned during interviews the Swedish tax system as an obstructive force in the development of an informal investment market, such as the business angel market. Although the matter will not be fully investigated in this thesis, it has to do with taxes on capital gains, which makes it unfavorable to make investments in unquoted companies. This view is shared with several researchers, one of which believes the Swedish tax system to only incentivize one special type of investment, which is described as “socially wasteful” in the study.\textsuperscript{139}

Regarding the availability of institutional venture capital the general perception is that there is some seed money to get from public VC-firms in the region, such as

\textsuperscript{137} Saetre (2003)  
\textsuperscript{138} Aernoudt (2005)  
\textsuperscript{139} Avdeitchikova (2008)
Innovationsbron, but excluding the public VC-firms the venture capitalists seem to have a lacking interest in investing in start-up companies. The VC-firms are similar to banks in how they evaluate projects, and most of their valuation methods are characterized by the preference of stable-cash flow in the short run, as opposed to projects with uncertain cash-flows and larger burning rates, which is indeed typically the case for start-ups. Another argument is that the management of a project does not vary with the size of the fund, since cost of due diligence, audit and monitoring are not related to investment size. This suggests that resources should be allocated on the most productive activities first, and given that seed and start-up proposals typically are less productive, they receive lower priority from the VC-firms.¹⁴⁰

Studies have also shown that the larger the funds are, the less attractive are small investments into start-ups. For example, the Netherlands used to have the largest share of seed capital in Europe, but as the total amount of venture capital was concentrated to only a few larger funds, the seed capital decreased considerably.¹⁴¹

The surveys indicated that 30 per cent of the responding VC-firms made their most recent investment in a company that belonged in the start-up phase, however this is not considered evidence enough to say that they make these types of investments often, nor do they necessarily fill the financial gaps. In fact, since the surveys were anonymous, it cannot be excluded that all of the respondents who placed their last investment in the start-up stage were public VC-firms, which have a larger tendency to invest in early stages than private.¹⁴²

The market structure of the Swedish venture capital-funds industry implies that the entrepreneurs should wait as long as they can before raising capital from a VC-firm. As mentioned, there are not many VC-firms for a company to contact in the early-stages. Based on basic business knowledge one can anticipate that the many small companies will have a tough time in negotiations with a few number of large VC-firms, which leads to low company valuations by the VC-firms and disadvantageous shareholder agreements for the entrepreneurs. This could be an explanation to the heavy discussions in Swedish media in early 2012 regarding the public VC-firms and their shareholder agreements with entrepreneurs.¹⁴³ At a later stage of the company’s development, the situation is often the opposite; fewer companies with the potential to be successful and several VC-firms interested.

¹⁴⁰ Aernoudt (2005)
¹⁴¹ ibid
¹⁴² Aernoudt (2005)
¹⁴³ Kihlström et al. (2012)
8.2.2 The investment process

The main conclusion regarding the length and number of meetings in an investment process is that it was very differentiated and dependent on several factors, which made it hard to see how this could be improved. A faster process would be beneficial for all actors, but it is difficult to identify measures on how to improve the process in this way. The interview results surprisingly indicated that the investment process involving business angels is not shorter than the one with VC-firms. As discussed in chapter 5.3.1, a possible explanation to this could be that business angels are more risk averse and therefore the process becomes prolonged. Another reason could be that VC-firms’ investment managers have more experience than the average business angel, which may result in more efficient processes.

The authors believe that the risk aversion among business angels may be an important reason for why some investment processes are longer than what is desired. If the entrepreneurs were to look for investors with relevant capital, i.e. niche-industry experience, there would possibly be less investor uncertainty due to information asymmetry. This is based on the belief that the investor with relevant capital would make a better assessment of the business; hence a more focused and efficient due diligence.

Another fundamental issue in the investment process, where important measures can be taken to make the process more efficient and in the long-run reduce the financial gap, is the presentations held by entrepreneurs for investors.

Presentations

When looking at the survey answers concerning presentations made by entrepreneurs, it seems as the VC-firm are more satisfied with the presentations than business angels. A probable cause to this is the Connect network meetings, where 20-25 business angels look at 4-5 entrepreneur-presentations each time, which means the presentations are not very targeted. A presentation held for a VC-firm is more often at a later stage than the network meetings, which also can mean the entrepreneurs are more experienced. The result is vital for this thesis, as the business angels have shown to be of great importance to reduce the financial gap and an impressive presentation is key to a successful investment process.
A case study made in previous research\textsuperscript{144} demonstrates how a poor oral presentation is likely to generate negative reactions amongst potential investors, and showed two fundamental failings. First, the presentations were often preoccupied with the product and technology, and second, they failed to make the business case. Similar issues were discussed during a Springboard (see section 4.5.1 for description), which the authors of this thesis attended. The largest problem the attendees had with the Springboard-presentation was the description of the product; however it was not the length but the clarity in the description. After explanation and demonstration, several attendees were still not sure what the product was. A clear and short explanation with several examples has to be prepared; this is a vital conclusion regarding product description.

8.2.3 Venues for contact

Empirical findings suggest a large feature of random meetings which later lead to deals being made. Some patterns can however be seen in both interviews and surveys, although it may be the obvious ones. VC-firms are large and well-known, and often get approached by entrepreneurs who request their money. The business angels are unknown, almost anonymous, and rarely ever meet the entrepreneurs outside network meetings. As the “right match” between investors and entrepreneurs is important, it is not optimal with unknown business angels. With this in mind, if an incubator was able to arrange more venues for contacts between business angels and entrepreneurs, the impact could be large. The suggestion of informal meetings arranged by the incubator has been delivered to both entrepreneurs and investors during this study, and it has been well received. The potential for Ideon Innovation as a “match-maker” seems to be somewhat unfulfilled, as none of the case studies indicate any contacts being made through the incubator.

Survey answers indicate a diversified pattern of initial contacts for VC-firms; however interviews with the more local firms mostly active within the innovation system in Lund suggest that way of establishing contact is almost exclusively through entrepreneurs approaching the VC-firm. This subject was also discussed in a study from 2011, which compares Swedish and Californian VC-firms. One conclusion of that study was that the investors in the US have more technical expertise and more connections with schools and research labs, enabling them to

\textsuperscript{144} Mason & Kwok (2010)
meet more entrepreneurs and establishing more venues for contact at these places.\textsuperscript{145}

The survey indicated that that there is hardly any difference between how investors and entrepreneurs have come in contact in previous investment situations and how they would like to be contacted in the future. Since the respondents were able to choose many contact ways, it is possible that they marked several; hence the results do not say anything about how they rank the contact venues, only that they are open for different kinds of venues. In fact, interviews hinted that investors welcome any types of informal and formal meeting places, as long as they generate deals.

8.2.4 The investor-entrepreneur relationship

After discussing the general investment climate in the Skåne area, the analysis will now take a step down, from a macro- to a micro-perspective, and examine the relationship between the entrepreneurs and investors. This includes how they perceive each other and themselves, what they believe is important when considering an investment and what type of investor is right for which company.

8.2.4.1 Discrepancies in perceptions

The surveys conducted during this thesis show fortunately for the actors in the process, and unfortunately this thesis considering one part of the purpose is to make recommendations, not many discrepancies in perceptions. This includes both regarding what are important characteristics of a company for a potential investor and what investors contribute to the company.

The entrepreneur/the team

The opinions are unison regarding what is the most important concern to an investor, and the entrepreneurs are well aware of this. As the number of employees is very low in the companies, which raise capital in these stages, the characteristics of the entrepreneur are naturally of great importance. The average number of full-time-equivalents employed at the companies leaving Ideon Innovation is for example 1.8 (including the entrepreneur himself/herself).\textsuperscript{146}

Stage of product development

A more interesting characteristic of a company is what stage the company has reached, whether it is still developing the product or has begun to make sales. Two views have become evident during this study; the products are like the

\textsuperscript{145} Berglund (2011)
\textsuperscript{146} Retriever Business <www.retriever.se> (authors’ calculations from annual reports 2000-2010)
entrepreneurs’ babies, they are emotionally attached to them and do not want to go to the market until they are perfect, in contrast to the investors who want to see cash-flow and evidence of commercialization. This is especially an issue in technical science-parks such as Ideon, where the entrepreneurs often are more interested in the technology than the commercialization of the product.

From all interviews with investors and entrepreneurs who have raised capital, from reading previous research and from being a part of the innovation system during this thesis, the one remark almost everybody has mentioned has been regarding commercialization. They cannot stress enough how important start making sales is, which is an important finding to this thesis. It can also be a vital part of business development to start iteration on the market early, if no substantial danger of copycats is evident.

Reasons to why investors strongly prefer companies to have started their commercialization process are several:\textsuperscript{147}:

- Stable cash-flow reduces the possibility for further capital need soon after the initial capital injection
- The uncertainty of how high product development costs will be is low
- The entrepreneurs have shown they have found customers, distribution channels and have shown general sales skills
- With revenue, it is easier to evaluate the business model, removing much uncertainty
- Stable cash-flow makes sophisticated valuation methods easier, which is of large importance to some VC-firms

Taking all these matters into account, it is not difficult to understand why one investor believes the value of a company doubles after the first sale has been made.\textsuperscript{148}

**Projections of sales and cash-flow**

One of the largest discrepancies in the view of investors’ investment considerations are the future projections of sales and cash-flow, which entrepreneurs believe to be of greater importance to investors than what seems to be evident. The probable explanation to this is that it is very difficult to make projections and estimates in the early-stages, and entrepreneurs do not relish this part of the investor presentations. Therefore they rate it as important to “investors” because it is

\footnotesize
\textsuperscript{147} Interviews with investors
\textsuperscript{148} BA4
something they feel they have to do even though they do not want to. When looking at the investors’ views of projection, they are not rated especially high. Despite not rating future projections as important, investor interviews suggest that “unrealism” and too high valuations are potential deal-breakers. Conclusions can be drawn that if entrepreneurs try not to exaggerate when making their projections, it should not affect the investment decision.

The investors’ contributions
The largest discrepancy regarding investor contribution concerns the investors’ management skills, which entrepreneurs do not rate as very high in contrast to the investors. A possible explanation is the entrepreneurs’ expectations of investor involvement. Findings from interviews suggest that entrepreneurs expect more involvement from investors, hence the low rating of their management skills. Otherwise the views are fairly unison, with high ratings from both entrepreneurs and investors regarding the strategic competence and low ratings of technical competence. This suggests that investors have low industry-specific experience in the companies they invest in. After touching the subject of investor contribution briefly, it will now be more thoroughly discussed.

8.2.4.2 Investor contribution
Findings from survey, interviews and case studies suggest that the investor contribution in the Skåne area does not meet the entrepreneurs’ expectations. The most common disappointment is regarding their general commitment and involvement as well as their networking skills, which were believed to open doors for the entrepreneurs. An explanation to this disappointment can be found in the theories of investor contribution presented earlier when introducing the terms of financial, competent and relevant capital (chapter 3.2.4). It seems as entrepreneurs have only been able to acquire financial capital, while expecting competent or relevant capital, hence the ineffective relationship between them.

If a company were to search for relevant capital a large part of the financial gap would be bridged, especially regarding the post-investment involvement. An investor offering relevant capital will not only contribute more if the level of involvement would stay the same, but the level of involvement would most likely also increase with the investor’s natural interest in the project. With relevant capital the amount of technical competence and networking contacts delivered by the investors, which were both rated low in the surveys conducted, would increase and create a broader range of contributions.

149 Saetre (2003)
This theory can also explain why the investors have rated the entrepreneur as the most important factor of a company. Investors who choose to place their money in early-stage companies take on a large risk. This risk can be said to contain two parts of different kinds of risk; agency risk and market risk. As many investors have experience from the industry they invest in, they can easily assess the market risk. Agency risk then becomes increasingly important in the investment decisions since here is where the greatest uncertainty lies.\footnote{Saetre (2003)} This is one explanation to why “The entrepreneur/The team” is rated so important by investors; this is where the most uncertainty lies and if they cannot trust the entrepreneur the deal falls through.\footnote{Survey and investor interviews}
The argument that investors should invest in industries they know and have specific experience from, was something which became clear when talking to one particular investor whose two investments both were in industries he had no experience from. Afterwards, he concluded that he had not made the investments again if he knew what the outcome would have been (the companies are still running, however the growth has been slow and more capital than what was previously expected has been needed).\footnote{BA2}

The problem is of course to find relevant capital willing to invest in the company. Possible networking solutions will be presented later in this thesis, however the “dressing of the bride” is of course also an issue, and will be discussed next.

\subsection*{8.2.4.3 The demand side: introducing investment readiness}

The financial gap in the early stages is not fully explained by deficiencies in the supply side of capital, it also derived from the demand side. The fact that almost 90 per cent of all business angels answering the survey are interested in investing if the opportunity is right suggests that the supply side is not completely out of shape. Findings from interviews also state that entrepreneurs’ own valuations of the companies are potential deal-breakers and that the “boom” in entrepreneurship in the past years has brought too many business cases not interesting enough for investors to the market.

The researchers Mason and Harrison introduced in 2001 the term investment readiness to explain how to “dress the bride” in a long-term view, i.e. from the start of a company take several measures to make it suitable for an investment.\footnote{Mason & Harrison (2001)} It has later been revised somewhat, but in a study from 2010 the term was still
relevant. They discuss how the attitude towards equity finance needs to change, how it is important to help entrepreneurs understand different forms of financing, which should lead to an increase in the flow of investment opportunities. The most fundamental part of investment readiness however, is the “investability” of the company, i.e. how the company meets the requirements of the investors. They suggest that at its heart, investment readiness is about business development. If a company is not investment ready, ways of establish meetings and other interactions between entrepreneurs and investors can become useless. Mason and Harrison also discuss business angel networks, which is highly applicable to the innovation system in Lund, and that their work is somewhat redundant if the companies brought forward are not investment ready:

“Moreover, the existence of business angel networks, whose objective is to improve the efficiency of the market by ‘introducing’ investors to entrepreneurs seeking finance, and vice versa, has not improved the ability of investors to invest because many of the businesses that they have put in front of investors are not investment ready.”

What the investors’ requirements and preferences in the different stages of product development are, have already been somewhat discussed during this analysis, but it will be fully concluded here. Bringing together all findings from this study, a few factors concerning the “investability” of a company stand out.

- The most vital thing is a competent and trustful entrepreneur/team, with the most important characteristics being commitment and drive
- A business model with the possibility of scalability
- Evidence of commercialization of the product

These factors regarding the business development together with a full understanding of the innovation system in the Skåne area with all the different financing options and the Connect-process, as well as well-developed presentation skills are the three vital parts of this thesis’ application of the investment readiness theory. This concludes how the demand side can prepare itself to bridge the financial gap in the early stages and start networking and searching for investors in an effective way.

154 Mason & Kwok (2010)
155 Mason & Kwok (2010)
156 Surveys
157 Investor interviews
158 Investor interviews, case studies
8.2.4.4 Valuation issues

A very difficult task in an investment process is the valuation of a company, i.e. to decide how much stake in the company an investor will get with the amount of capital offered/requested. In the early-stages of a company it is even hard to tell if the value of a company lies in future sales, which will become profit or in the technology which can be acquired by a larger company. This makes valuation very difficult and constitutes a large part of the financial gap, especially since investors can consider unrealistic views on valuation a deal-breaker\textsuperscript{159}. During this study, one way of tackling this critical part of the investment process has been identified and discussed.

- An investor with niche-industry experience who can offer relevant capital can be a solution to the valuation problem. If an investor with relevant capital should invest in a company, the value added by this investor to the firm would be recognized and considered by the entrepreneur, who would be able to give up a larger part of the company for the same amount of financial capital. An interesting “paradox” can arise as investors with relevant experience can assess the true value of a company and therefore sometimes offer more capital than an investor without industry-specific knowledge. This means the entrepreneur can, in the rarest of cases, get both the most appropriate investor and most financial capital from the same source.

8.3 Recommendations to Ideon Innovation

8.3.1 Overview

After analyzing the data collected, the next step of the thesis was to conclude the findings and make recommendations to Ideon Innovation on which measures they can undertake to reduce the financial gap and improve the contact areas between entrepreneurs and investors. The empirical findings make the foundation for the recommendations, which are presented below in several stages. The chart proposes different measures for Ideon Innovation and its incubates to undertake in each stage; however, the measures do not have to be applied in a strict order.

\textsuperscript{159} Investor interviews
The basic idea of the stages is from Ideon Innovation’s point of view; an entrepreneur enters the incubator and gets help with business development, after which the entrepreneur focuses on gaining presentation skills towards investors which are later utilized when meeting investors through networking. The last stage is naturally closing. The recommended measures under each stage have very different characteristics; they can be concrete actions easily implemented or merely a kind of mindset to have when approaching the specific situations. All recommendations have been given a rating of how difficult they would be to implement and a rating of which potential impact a pursued recommendation can have. The ratings have been decided upon with the authors’ own judgments, with the objective to be able to compare the recommendations. The authors believe that with minor adjustments, the recommendations have potential to be applicable to any incubator and entrepreneur.

### 8.3.2 Entry

#### A. Educating Seminars
The empirical findings suggest that the financial gap is not only a purely financial gap, but also a knowledge gap. Investors do not know enough about entrepreneurs; nor do entrepreneurs know enough about investors and the types of financing options available. Ideon Innovation can help with the latter of the two issues by trying to educate the incubatees in financing issues for small firms. The seminars are preferably held by investors, which have earlier been entrepreneurs themselves. The seminars’ outlines are not specified, however suggestions can be:

- Basic valuation techniques, from theory to practice
- The decision-making criteria for investors
- Different types of investors; how to meet them and how to approach them

A prerequisite is that these seminars are provided to incubatees as early as possible in the incubation process.

**Recommendation aimed at:** Ideon Innovation  
**Implementation rating:** Medium; requires resources and time.  
**Potential impact:** Uncertain; the knowledge of the entrepreneurs is difficult to estimate, hence also the impact of seminars.

**B. Document with financing options in the innovation system**

Opinions regarding the clarity and transparency of the different actors and their role in the innovation system have been collected during the process of this thesis, especially during the case studies. The companies believe that they have spent excessive time and resources talking to a number of actors in the innovation system, often about the same things. With this in mind, a document which explains all actors which may be of use for an entrepreneur could be handed out to all employees at all companies at the entry-stage of the incubator.

This document would contain all necessary information as well as application advice regarding the application processes where pertinent. This would give the entrepreneurs a jump-start in the acclimatization in the incubator and prevent time being spent by business coaches explaining things that could easily have been learnt by reading.

**Recommendation aimed at:** Ideon Innovation  
**Implementation rating:** Easy  
**Potential impact:** Low

**C. Financing plan**

The sooner the short- and long-term financing needs can be properly estimated, the better. This means a financing plan should be developed and with it a strategy of
how to work with financing. Findings from empirics suggest that different financing needs should be solved with different sources of financing.

To give an example; for a company with a moderate financing need in an early-stage and which is estimated to make enough cash-flow to expand later without several extra rounds of investments, the most appropriate investor might be a business angel with industry-specific knowledge and experience, or perhaps the company should only focus on grants. A med-tech company which needs a total of up to SEK 100 million in external financing is well advised to focus on large VC-firms from the start. As these examples show, if a company can estimate their long-term financing needs well, they can focus their financing plans better and not spend time and resources in an inefficient way.

**Recommendation aimed at:** Entrepreneurs  
**Implementation rating:** Difficult. Large uncertainty regarding future financing needs makes it difficult to develop a financing plan.  
**Potential impact:** Large

### 8.3.3 Business development

**D. Increased sales focus**

Findings in the empirical data indicated that investors value entrepreneurs with a clear sales focus higher than the ones lacking it; in fact this was one of the most unison opinions across the interviews with investors. With this in mind, entrepreneurs should focus on sales early on and not devote every waken hour to the development of the product/service. The sales do not necessarily have to be of the company’s core product; any sign of an entrepreneurs’ commercial ability may create an advantageous position in the investment process. The objective of this recommendation is to raise awareness of the weight investors lay on commercialization.

**Recommendation aimed at:** Entrepreneurs and Ideon Innovation  
**Implementation rating:** Medium  
**Potential impact:** Large; it may be a deciding force in an investment situation

**E. Attend Springboard**

The Springboard is a part of the Connect-process, which the authors feel all companies at Ideon Innovation should be a part of. Ideon Innovation suggests most of their companies to attend it, however the authors believe it can be emphasized
even more, based on how well interviewed companies have perceived it. The main objective of the process might be to raise capital, but findings in this study suggest that presentations for investors and others concerned with financing can be a crucial part of business development. Questions the entrepreneurs might not have considered before can be asked, which can make a significant difference in moving the business forward. The Springboard in particular, does not only have investors in the audience but also people with experience from the industries relevant to the specific presentation. It is more of a seminar with discussions regarding for example the presentation, business model and valuation, and it can be an important venue for contact with people in the industry.

**Recommendation aimed at:** Entrepreneurs and Ideon Innovation  
**Implementation rating:** Easy  
**Potential impact:** Uncertain

### 8.3.4 Presentations

#### F. Story telling
Story telling can work as a great way of capturing the interest of the investor. Investors clearly value the entrepreneur/team highest; therefore it comes as no surprise the importance for the entrepreneurs to make an interesting presentation about themselves. To tell a story about why this particular entrepreneur is the most appropriate one to pursue this particular business opportunity can be of vital importance for a presentation and will capture the investors’ attention. Increasing the awareness of storytelling and the competitive edges it may create can have a significant impact on presentations, and if resources allow, Ideon Innovation should consider the possibilities of arranging seminars on the topic.

**Recommendation aimed at:** Entrepreneurs and Ideon Innovation  
**Implementation rating:** Easy  
**Potential impact:** Uncertain; at a presentation it can have large impact, but in the big picture it is a small part of the investment process and therefore difficult to estimate the impact.

#### G. Modest valuations
Findings in empirics indicate an aversion among investors towards entrepreneurs who value their company too high early in the process. Although understanding the initial valuation’s role in negotiations, the authors would like to emphasize the findings from interviews with investors; investors can get “turned off” by a high
valuation despite experiencing an otherwise good fit with the company. The value-
estimate during a presentation by an entrepreneur is often the first sign of
interaction with investors, and a first impression of how realistic the entrepreneur
is. This impression is important, and with the recommendation “Modest
valuations”, the authors would like the entrepreneurs to have in mind that not only
is it important to show enthusiasm regarding the business and make an initial
negotiation stand, but also to show realism and rationality. Therefore, the
recommendation is to be more modest in the valuations, since almost all investors
interviewed have indicated that the entrepreneurs are too unrealistic.

Recommendations aimed at: Entrepreneurs
Implementation rating: Easy
Potential impact: Uncertain

8.3.5 Networking

H. Industry-focus regarding business angels
This recommendation is more of a mind-set than a concrete action. An important
finding in empirical data as well as in theory is the gap-reducing attributes of
investors with a specific industry-experience or -knowledge. As mentioned,
business angels with competence within a niche-industry can offer entrepreneurs in
this industry more than financial capital, hence reducing many potential problems
with valuation issues. With this in mind, entrepreneurs can search for capital
outside normal standards (the Connect-process or public VC-firms such as
Innovationsbron), for example through contacts within the industry. The authors
also believe that Ideon Innovation will benefit indirectly with this in mind, by
increasing connections between companies in the same sectors.

The matching of entrepreneurs and investors with niche-industry experience could
also result in shorter investment processes, which could be crucial for start-ups
having an urgent need for external capital. The business angel investment process
is believed to have room for improvement, considering that findings showed no
difference in length between the average VC-firm investment process and the
average business angel process.

Recommendations aimed at: Entrepreneurs and Ideon Innovation
Implementation rating: Easy; however unclear how to really make use of the
knowledge.
Potential impact: Low
I. Informal events with investors
All investors interviewed and a majority of the survey answers indicated positive response to introducing more venues for contact between investors and entrepreneurs. The Connect-process and its business angel networkmeetings are considered vital to the regional financing arena, however more venues are welcome. Introducing informal events with investors at the incubator will not only provide the incubatees with another venue for contacts with investors, but also give the incubator the chance to influence the meetings with industry-focus, i.e. combining recommendation H with this recommendation.

Recommendation aimed at: Ideon Innovation
Implementation rating: Medium; demands resources and time.
Potential impact: Uncertain

8.3.6 Closing

J. Extended closing ceremonies
When a company in the incubator raises external capital, it is celebrated at the incubator’s premises with an announcement. The authors’ recommendation is to extend these ceremonies with further information from the entrepreneurs, who have raised capital. Information may include the type of investors, how they met with the investors, what the process was like etc. Sensitive information would of course be neglected from this announcement. The objective of this recommendation is to inspire the other incubatees; the shared information can excite the other companies regarding external financiers, give them ideas regarding how to meet investors or simply gain information regarding the investment process.

Recommendation aimed at: Ideon Innovation
Implementation rating: Easy
Potential impact: Low

8.3.7 Summary of recommendations
As a final conclusion of the master thesis’ analysis, the proposed actions will be summarized to point out a few key recommendations. As the recommendations have been categorized by two dimensions, implementation rating and potential impact, they can be plotted along these dimensions in a graph to identify key recommendations. This is done to give Ideon Innovation some guidelines of which recommendations to focus on. The graph is shown in figure 24.
Out of the ten proposed actions, unfortunately no recommendation has been estimated to have large potential impact and at the same time be easy to implement, which would be the optimal scenario; however four recommendations have come close and are therefore labeled key recommendations:

- D. Increased sales focus
- E. Attend Springboard
- F. Storytelling
- G. Modest valuations

These four actions should be dedicated the most focus given their placement in the graph. The key recommendations will conclude the analysis of this thesis.
9 Conclusion

This chapter concludes the findings of the thesis. The authors will also comment on the fulfillment of the thesis’ purpose and on the methodology and credibility in hindsight. Finally, suggestions will be made on further research.

9.1 Purpose of the thesis

The purpose of this thesis was to better understand the early stage investment process, and with this deeper understanding provide Ideon Innovation with a recommendation of how to improve the interactions between investors and entrepreneurs.

A theoretical framework has been developed and set a foundation for a comprehensive analysis of the investment process. Through interviews and surveys with several investors and entrepreneurs, a careful analysis has been conducted which makes the authors believe that they have fulfilled the purpose of gaining a deeper understanding of the investment process.

The incubator Ideon Innovation has been studied with focus on the employees’ support regarding financial matters. This study, together with the theoretical framework and the empirical data, have enabled the authors to create suitable recommendations of which means to undertake in order to improve the investment process in early stages and reduce the potential financial gap.

Although the purpose has been fulfilled, the authors acknowledge that the recommendations are of different character. Some of them are general and not analyzed in detail, hence should only be used as guidelines, while some are more concrete actions, which makes the comparability of the recommendation somewhat difficult.

9.2 Research questions

To conclude the findings of the thesis, the authors will give a short review of the answers to the research questions stated in chapter 1.

1. How is Ideon Innovation currently working with financing issues regarding its incubates?

Financial coaching is an important matter for the business coaches at Ideon Innovation, and the subject of financial planning is brought up from the beginning of the incubation process, to clarify current and future needs for external financing. Ideon Innovation does not provide its incubates with information regarding private investors, nor do they arrange meetings where entrepreneurs and investors
can discuss business informally. They do however suggest most of the incubatees to attend the Connect process, which has been further emphasised by the authors of this thesis. Recommendations include complementing activities and measures to consider and hopefully implement, in order to further enhance the financial coaching schemes currently undertaken by Ideon Innovation.

2. What are the current general views on the investment process from the different actors?
   - From the entrepreneurs?
   - From the investors?
   - Are there any discrepancies in the different views of the process?

The findings indicated that there are not many discrepancies in the different views of the process, or in the actors’ views of each other. A few factors regarding what investors prefer in the different stages of the product development were addressed and concluded to the ones that stood out the most:

- The most vital thing is a competent and trustful entrepreneur/team, with the most important characteristics being commitment and drive
- A business model with the possibility of scalability
- Evidence of commercialization of the product

Investor contribution in the Skåne area does not seem to fully meet the entrepreneurs’ expectations. Knowledge of and experience from the specific industry, i.e. relevant capital, does not seem to be the main priority by the entrepreneurs, who often are settling for financial capital from the investors. This may be one of the reasons for the ineffective relationship between them.

3. Are there any lessons to be learned from companies which have left the incubator?
   - From companies which have been successful in raising capital?
   - From companies which have not been successful in raising capital?

In these particular case studies, the difference between the companies which had not been successful in raising capital and the ones that had been successful were not significant, the most probable cause being that the company which was not successful had made a choice not to search for capital. The most important lessons learnt from the case studies are listed below.

- A simple product in the early-stages can act as a cash-cow and relieve a lot of pressure from product development or sales of the main product. The crucial need of early investments from external capital can also be reduced
• The search for external capital can be an important part of business development
• The opinions of the innovation system in Lund are unison; the number of actors are too many and their functions unclear

4. With help from the findings in previous research questions, what are the potential means for Ideon Innovation or other incubators to reduce the gap between investors and entrepreneurs at the early stages of business development?

Findings from the study suggest that capital does exist, which means the decline in venture investments are probably derived from risk and return issues. Findings also suggest that incubators can help the investment process between entrepreneurs and investors by advising the entrepreneurs in an appropriate way. The main issues these advices especially should address are increased knowledge regarding financing options and investment criteria among investors, business development which enhances the value of the company and the entrepreneur’s presentation skills. This study also indicates that if focusing the search for informal capital to people with experience from the specific industry, both resources spent on raising capital would be decreased and difficult valuation issues would be avoided. All recommendations to the incubator are shown in figure 25.

<table>
<thead>
<tr>
<th>Entry</th>
<th>Business development</th>
<th>Presentations</th>
<th>Networking</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Educating seminars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Document with financing options</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>C</td>
<td>Financing plan</td>
<td>Increased sales focus</td>
<td>Storytelling</td>
<td>Industry-focus regarding business angels</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>Attend Springboard</td>
<td>Modest valuations</td>
<td>Informal events with investors</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td>Extended closing ceremonies</td>
<td></td>
</tr>
</tbody>
</table>

Figure 25: Summary of recommendations
9.3 Comments on methodology

The authors took a very broad research approach with a mixture between two approaches. Choosing a single research approach could have resulted in a more focused thesis, an issue which is of importance since one could argue that this thesis is lacking some focus.

The objective of the thesis was to gain a deep understanding and with this understanding construct recommendations, which made the choices of normative and qualitative studies obvious according to the authors. These choices have also been satisfying, although some quantitative studies on alumni company performance were also conducted to complement the qualitative studies.

Regarding data collection, the authors’ are especially satisfied with the number of different sources of data; investors, entrepreneurs, the incubator, books, journal articles, websites and annual reports. The methods of data collection were also pleasing; however the authors were early on hoping to be able to conduct more personal interviews and collect more survey answers than what turned out to be possible, which was disappointing. The result of postal surveys was better than expected, and should in hindsight be used to a greater extent. To increase the quality of the recommendations, other incubators could have been used as another source of data, perhaps as case studies, had it not been for scarce resources such as time.

One of the companies in the case studies, Cognimatics, was of a different nature than what was expected beforehand. Their adverse attitude towards external venture capital excluded them from the type of companies the authors in the beginning set out to find; companies which have been successful or not successful in raising capital. This master thesis does therefore not include a case study of a company wanting to raise external capital without succeeding, which the thesis would have benefited from.

In chapter 8, “Analysis and recommendations”, some new theories are introduced which have not been discussed in chapter 3, “Theoretical framework”. This is an unconventional method, but is motivated by the abductive approach used in this thesis and the nature of the theories introduced. The abductive approach implicates that some new theories may be introduced at a late stage of the thesis-process. Furthermore, the authors have in chapter 8 only introduced new theories which have been considered not established enough to be presented as stand-alone theories in chapter 3, however still being highly applicable to the matter of discussion in which they have been introduced in chapter 8.
9.4 Comments on credibility
The several sources of data throughout the thesis have been satisfying and have increased the thesis’ credibility. The largest concerns have been regarding the survey to investors, where the population was based on one particular business angel network, making the answers somewhat biased. The authors have tried to compensate this by increasing the validity of the survey through developing the survey together with researcher within the field.

This thesis is a somewhat a regional study due to its large focus on the Skåne area. Although it can be argued that investors’ and entrepreneurs’ behavior is not dependent on location within Sweden, this cannot be proved and the study’s credibility would therefore benefit from a nationwide study.

9.5 Future recommendations
If it had not been for limitations in resources, it would have been interesting to widen the geographical area of the study, and investigate the relation between both Ideon Innovation and other incubators in Sweden, but also make comparisons globally.

With regards to the recommendations towards the incubator, a benchmark-study of other incubators’ activities regarding investors would be an interesting study.

Discussions regarding international investors were held during interviews with both entrepreneurs and investors, as both parties often made comparisons with international actors. The authors would therefore suggest future research to be of the difference between Swedish and international actors in the investment processes.
References

Literature, journals and articles


Olofsson, Maud (2011) ”Regeringen reformerar regler rörande riskkapital”, Dagens Industri 2011-09-17 http://www.regeringen.se/sb/d/14271/a/175522


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**Websites**

Connect Skåne <www.connectskane.se> 2012-02-05

Svenska Riskkapitalföreningen <www.svca.se> 2012-01-10

European Venture Capital Association <www.evca.eu> 2011-12-10

Retriever Business (tidigare Bolagsinfo) <www.retriever.se> 2012-01-15

**Interviews**

Gripwall, Stefan, CEO Zaplox AB. 2012-01-19

Keränen, Olli, CEO Medtentia AB. 2012-01-13

Liu, Jing, Head of R&D Bioprocess Control AB. 2012-01-24

Morän, Håkan, Partner Cognimatics AB, 2012-01-31
Smedman, Björn, CEO Anyfi AB. 2012-01-12

VC1 and VC2, public VC-firms, Skåne, 2012

BA1-BA6, private investors, Skåne, 2012

Other

Ideon Innovation internal information:

Five interviews with management (2011-11-18 – 2011-11-19)

Ideon Innovation intranet 2011-11-18
Appendices

Appendix A – Interview guides

Interview guide: Business angels

- Introduction
  - Professional background? Which industries?
- Investment background
  - How many investments?
  - Which sizes of investments? Solo investing or co-investing?
  - What industries?
  - Lessons learned in hindsight?
- Views on the innovation system in the Skåne area
  - The incubators
  - The CONNECT-process
- The entrepreneurs
  - General view of the entrepreneurs today?
  - Have their attitude towards venture capital change?
- The current investment climate
  - Is the venture capital market declining, and if so, where has the money gone?
  - Any specific phases in the investment cycle that are “dry”?
- Venues for contact with entrepreneurs
  - How did you meet the entrepreneurs you have previously invested in?
  - How are you views on new venues for contact?
- Comparison with international investors
  - Main difference between the Swedish capital market and others, for example the American venture capital market?

Interview guide: Venture capital-firms

- Introduction
- The VC-firm’s role in the innovations system
  - Criteria for investments
  - Investment frequency
- General investment process
- Number of meeting, time period?
- Common pitfalls
- Examples of successful processes

- Previous investments
  - Companies from Ideon Innovation?
  - Why these companies?
  - Lessons learned?

- Views on the innovation system in the Skåne area
  - The incubators
  - The CONNECT-process

- The entrepreneurs
  - General view of the entrepreneurs today?
  - Have their attitude towards venture capital change?

- The current investment climate
  - Where has the money gone?
  - Any specific phases in the investment cycle that are “dry”?

- Venues for contact with entrepreneurs
  - How did you meet the entrepreneurs you have previously invested in?
  - Views on new venues for contact?

- Comparison with international investors
  - Main difference between the Swedish capital market and others, for example the American venture capital market?

**Interview guide: Entrepreneurs**

- Introduction
  - Story of the company
  - Financial performance
  - Current status
  - Personal background

- The investment
  - Why did you raise capital?
  - How did you get in contact with the investor?
  - How many meetings? Type of meetings?
  - More than one investor? How to choose?
  - Status of the company at the time
  - More rounds of investment afterwards?
• Period before first investment
  o Financing
  o Investor contact
• Time at Ideon Innovation
  o Financing discussion
  o Other impressions
• Views on the innovation system in the Skåne area
  o The incubators
  o The CONNECT-process
• The investors
  o General view of the investors today?
  o Have their attitude towards early stage investing and entrepreneurs changed?
• The current investment climate
  o Where has the money gone?
  o Any specific phases in the investment cycle that are “dry”?
• Venues for contact with investors
  o How did you meet your investors?
  o Views on new venues for contact?
• Comparison with international investors
  o Main difference between the Swedish capital market and others, for example the American venture capital market?
Appendix B – Survey results

Einkätsvar - Entrepreneurs

Svarsfrekvens 27%

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**DELI 1 – Fyll i av de som någon gång tagit in riskkapital i företaget?**

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<th>Affärsägare/ärkutare</th>
<th>UC-firm</th>
<th>Corp. Venture</th>
<th>Other</th>
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**DELI 2 – Fyll i av de som gått in riskkapital?**

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**DELI 3 – Hur många företag är det i hela?**

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**DELI 4 – Hur många företag är det i hela?**

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**DELI 5 – Hur många företag är det i hela?**

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<th>Private kantonal</th>
<th>Igöt utländska</th>
<th>Gross Co-invest</th>
<th>Andro investerat</th>
<th>Kontakt av investerare, Gross säkerhetsmässigt</th>
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**DELI 6 – Hur många företag är det i hela?**

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**DELI 7 – Hur många företag är det i hela?**

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<th>Kunskap och informationsom</th>
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<th>Företagsledarskap</th>
<th>Företagsledarskap</th>
<th>Medarbetare under intresse med investorare</th>
</tr>
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<td>Företagsteknologi</td>
<td>Företagsledarskap</td>
<td>Företagsledarskap</td>
<td>Medarbetare under intresse med investorare</td>
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<td>Kunskap och informationsom</td>
<td>Företagsteknologi</td>
<td>Företagsledarskap</td>
<td>Företagsledarskap</td>
<td>Medarbetare under intresse med investorare</td>
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**DELI 8 – Hur många företag är det i hela?**

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**DELI 9 – Hur många företag är det i hela?**

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<th>Presentation</th>
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**DELI 10 – Hur många företag är det i hela?**

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**DELI 11 – Hur många företag är det i hela?**

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**DELI 12 – Hur många företag är det i hela?**

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<tr>
<td>Enkättsvar - Affärsånglar</td>
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</tr>
<tr>
<td>--------------------------</td>
<td></td>
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<tr>
<td>1. Vid en senaste investering, vad anser ni att ni bidrog mest med i er roll som affärsångar? (skala 1-5)</td>
<td></td>
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<tr>
<td>Kapital</td>
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<tr>
<td>Kontakt</td>
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<tr>
<td>2. Hur många investeringsår ni gjort senaste 5 åren? (skala 1-5)</td>
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<td>3. Hur större ni er till nya investeringar idag?</td>
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<td>5. Om ni har några medinvestorer var delaktiga vid denne investering?</td>
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<td>6. I vilken storleksondförs var er senaste personliga investering?</td>
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<td>7. I vilken storleksondförs var den totala investeringen, då flera aktörer tillkommer investerande?</td>
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<td>8. I vilken av följande faser (EVCAS-klassificering) skulle ni placera in er senaste investering?</td>
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<tr>
<td>9. Hur har ni fått första kontaktet med företagen ni investerat i?</td>
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<tr>
<td>10. Vilken kontaktstil ser ni som den mest lämpade för er i framtiden?</td>
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<tr>
<td>11. Vilket är senaste investering, hur lång var tidspersiden från första möte med entreprenören till investeringsbeslut?</td>
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<td>12. Tycker ni att detta var en lämplig tidspersident eller hur hade ni helmt sett processen?</td>
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<td>13. Hur viktiga varer ni följande faktorer vara vid en potentiel investering? (skala 1-5)</td>
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<tr>
<td>14. Hur viktiga varer ni följande egenskaper hos entreprenören/teamet vara? (skala 1-5)</td>
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<td></td>
<td>6</td>
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<tr>
<td>15. Av tidigare erfarenhet från företagspresentationer av entreprenören, hur skulle ni beskriva deras presentationer generellt? (skala 1-5)</td>
<td></td>
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<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>16. Hur ni investerat i företag som banker/befunnit sig i en företagsinbjudan?</td>
<td></td>
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<tr>
<td></td>
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### Enkätvar - VC-bolag

#### Svarsfrekvens: 30%

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<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>3. Ungefär hur många investeringar gör ni årligen?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Investerade ni ioup med andra aktörer vid er senaste investering?</td>
<td>Ja</td>
<td>Nej</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>5. Om ja, hur många aktörer var med vid denna investering?</td>
<td>&lt;1%0'0'</td>
<td>1%0'-500'</td>
<td>500'-10 000'</td>
<td>10 000'-50 000'</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. I vilken storleksordning var er senaste investering?</td>
<td>Seed</td>
<td>Start-up</td>
<td>Post-creation</td>
<td>Expansion</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>7. I vilken av följande faser (EVCA:s klassificering) skulle ni placera er senaste investering?</td>
<td>Privata kontaktor</td>
<td>eget sökande</td>
<td>Kontaktdå av företaget</td>
<td>Nätverkssträf</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>8. Hur har ni följt första kontakten med med företagen ni investerat i?</td>
<td>Privata kontaktor</td>
<td>eget sökande</td>
<td>Kontaktdå av företaget</td>
<td>Nätverkssträf</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Entreprenör/entreprenör</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Produktivitet/kvalitet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Ekonomisk marknad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Konkurranst på marknaden</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Beväckljad/avslutat patent</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Företagens affärsmodell</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Befintliga kunder</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Framtid projektets försäljning</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Tidigare investerat kapital i företaget</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Antal/struktur för investeringen</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Fläder prototyp</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>11. Hur viktiga ansier ni följande egenskaper hos entreprenören/traonet vara? (skala 1-5)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Branschärlighet kvaliteter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Tidigare entreprenörfarenhet (serientreprenör)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Engagemang/inkludert</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. Hur lång var tidperioden från första möte med entreprenören tills investeringsbeslut vid er senaste investering?</td>
<td>&lt;4</td>
<td>4-10</td>
<td>11-20</td>
<td>21-30</td>
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<tr>
<td></td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13. Tycker ni att detta var en lämplig tidperiod eller hur hade ni helst sett processen?</td>
<td>Korta</td>
<td>Långre</td>
<td>Ingen ändring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>14. Av tidigare erfarenhet från företagssammanhang av entreprenör, hur skulle ni betegla denna presentation i generell? (skala 1-5)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Överlig</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Engagemang</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kroppspårr, tal etc</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Förberedelse</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Kompasspunkt och ansatt material</td>
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<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Produktbrännkalkulation</td>
<td>0</td>
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<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Projektvärde av framtid mål &amp; vinst (realistik?)</td>
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<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Marknadsplan</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Ja</td>
<td>Nej</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. Hur ni investerat i företag som befinners/befinner sig i en företagssammanhang?</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>