ESG Implementation in Venture Capital Investments

- A qualitative study of Swedish State-owned Investors

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Abstract

The need for sustainable investments has grown dramatically in recent years and so has the pressure on investors, especially state-owned investors, to integrate sustainability factors in their investments. Several researchers state that private equity investors play a major role in creating new businesses and influencing new companies towards sustainability. On the Swedish private equity market, a major part of the funds available to growth companies are provided by the Government. State-owned investor's role to create sustainable businesses in Sweden is therefore essential. However, research on how to implement ESG issues into venture capital investments is rare. Still today, we could not find any reports on how ESG issues are implemented by Swedish state-owned investors.

An empirical study was conducted on four major Swedish state-owned investors with the purpose to answer how state-owned investors implement ESG issues in venture capital investments. The study also aimed to identify problems with implementing ESG and how can state-owned investors work to deal with these problems. Interviews with investment managers and people working within these organization showed that it is generally up to each investor how ESG issues are being considered in the due diligence and screening process within direct investments. When it comes to post-investment activities the responsibility to work with ESG issues lays upon the board of each firm.

The study further showed that little is being done to implement ESG issues within indirect investments. The study shows that ESG issues are not included in the valuation of general partner or as criteria for investing in a fund or other partnerships. A final conclusion is that when it comes to how state-owned investors are working with venture capital investments, ESG issues are integrated in how investors think, but it is not implemented in how investors act.

In order to move from integration to implementation we suggest that investors could use a set of templates in the screening and due diligence process. Every template should be specific for the sector that includes the type of ESG criteria that is relevant for this sector. When it comes to indirect investments, the implementation of ESG issues is harder due to limited possibility to actively directing funds. The focus should be working with co-investors with the same values and beliefs and influence the board of the fund.

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1 Introduction

This chapter will give an introduction to sustainable investments and the evolution of ESG issues. Thereafter follow an introduction on the private equity market and the role and importance of state-owned investors on the private equity market in Sweden. This will lead into a problem discussion and the purpose of this study followed by delimitations and a brief definition of important concepts.

1.1 The need for sustainable investments

According to the UN, one third of the world's population will not have access to clean water by 2025 (Eurosif, 2008 p.4). The dramatic issues caused by environmental changes and the green-house affect forces us to consider sustainable factors when investing for future generations. The UN´s Secretary-General Ban Ki-moon made the following statement in 2009;

"*It is time to create market incentives that reward long-term investment…*"
(Ban Ki-moon, May 2009)

There is a new economic environment evolving that has lead to a shift from the classic industry model where environmental concerns were considered a cost and our resources as something free to exploit. In the new paradigm there is a growing respect for sustainability factors and companies are in a new responsible way to interact with the society. (Dignan & McKittrick, 2004 p.1)

New directives from United Nations Environmental Program (UNEP) states that, as a response to the global financial and economic crisis, the global economy should invest in long-term growth, genuine prosperity and job creation. Furthermore, the political engagement to make this real is an important factor. (UNEP - Fiduciary Responsibility, 2009 p.5)

Sustainable development is based on the principle that, "*economic development must meet the needs of the present without compromising the ability of future generations to meet their*. "
(Dignan & McKittrick, 2004 p.1)

Investment concept derived from this principle, such as SRI (Social Responsible Investment), has grown rapidly in the recent ten years. It has evolved and to a broader extent come to include so called extra financial issues. These factors are being referred to as ESG criteria´s (Environmental, Social and Governance) (Blanc, Goldet, & Hobeika, 2009 p.4).

As the concept of SRI is constantly evolving, the fundamental concern of SRI is constant, that is to create sustainable long-term investments. ESG factors are important criteria in order to achieve social responsible investments in the long-term. (Eurosif, 2008 p.6)

In a speech in 2008, the Swedish Prime Minister, Fredrik Reinfeldt, stressed the importance of considering sustainability factors in investments. He means that there is a demand for so called ethical funds due to an increased awareness among small savers that forces investors to consider sustainability factors in their investments. He further states that sustainability concepts are relatively new and constantly evolving leading to concepts such as ESG. (Reinfeldt, 2008 own translation)

1.2 The private equity market

The private equity market is growing and giving private equity investors an increasing role to play in creating sustainable businesses. The characteristics of the private equity market are to provide an attractive investment alternative for institutional investors to ensure future financial security for pension savers and create growth. However, a well functioning private equity market should also contribute to the society by sustainable growth and job creation. (EVCA, 2006 p.2)

Venture capitalists on the private equity market have a crucial function in creating sustainable businesses. As investors in the early stages of a company’s life, venture capitalists have a unique possibility to influence innovative companies towards sustainability, (Eurosif, 2007 p.2) and by integrating ESG factors when choosing investment target they can help the evolution of more sustainable businesses.

A report from EVCA (2006) shows that pension funds and other government institutions represent a large and increasing portion of the total investments made on the European private equity market. The fraction of investments coming from these sources was over 30 percent on the European market during a period from 2003-2007. (EVCA, 2006 p.2)

Even though the pressure on private equity investors to consider sustainability factors in the investment process has grown, guidelines and courses of action how investors can achieve this on a practical level is rare up to date. (Graaf & Slaager, 2009 p.2)

1.3 The role of Swedish state-owned investors

The government has traditionally been a large player on the Swedish private equity and venture capital market for a long time and holds a big responsibility for the growth of new companies. (Hernmarck, 2006 p.5; Isaksson, 2010) The system relies on government’s ability, as a dominant actor to lead this development. As other nations governments, including the US government has developed a system where private venture capital firms are promoted, the Swedish government´s role on the market has only increased through the years. (Svensson, 2006 p.30) As a direct strategy to interact on the venture capital market the Swedish government has in the last decades established several state controlled investment funds (i.e. venture capital funds). (Isaksson, 2010 p.21)

In an activity report from 2008 made by a governmental organ it states that “*public owned corporations should be a role model in the areas of environmental concerns and social responsibility*”. (Näringsdepartementet, 2008 p.24) In the report it is also stated that corporations with governmental ownership are expected to work actively with issues that include environment and social responsibility both as incorporated in companies operations and in the way that these companies interact with its intermediaries, customers and suppliers. (Näringsdepartementet, 2008 p.17)

Generally, it is the government that creates laws and policies of how actors on the Swedish market should act and follow. With that in mind, governmental bodies can create guidelines and policies, more specifically governmental actors can promote a more sustainable environment for active investors on the market. In a proposition from the government it is stated that an overall goal for environmental policies is that Sweden should have solved all environmental problem until next generation. Nevertheless, the work toward a sustainable development continues. (Regeringens Proposition, 2005 p.1)

However, it is difficult to find reports and studies on how Swedish institutional investors handle sustainability factors, such as ESG issues and to what extend these considerations are implemented in the investment process on a practical level, especially in the venture capital industry.

1.4 Problem discussion

The need for sustainable investments has grown dramatically in recent years and so has the pressure on investors, especially state-owned investors, to integrate sustainability factors in their investments. Several researchers state that private equity investors play a major role in creating new businesses and influencing new companies towards sustainability. New concepts are constantly evolving that describes sustainable investments. ESG factors are criteria´s within sustainable investments that could help investors to handle these issues in practice.

In the Swedish private equity market, a major part of the funds available to growth companies are provided by the Government. State-owned investor's role to create sustainable businesses in Sweden is therefore essential. It is clearly stated by the Swedish government that all state-owned organizations should consider sustainability factors in their operations and should work actively with these issues.

However, research on how to implement ESG issues into venture capital investments is rare. Still today, we could not find any reports on how ESG issues are implemented by Swedish state-owned investors. This study intends to fill this gap. The study aims to investigate how the Swedish state owned investors implement ESG issues in their venture capital investment, which leads us to the research question:

How do state-owned investors implement ESG issues in venture capital investments?

1.5 Purpose

The purpose of the study is to answer how state-owned investors implement ESG issues in venture capital investments. Depending on the findings we ought to study the following sub purpose:

What problems can be identified and how can state-owned investors work in order to deal with these problems?

1.6 Delimitations

The aim of the study is not to compare the four organizations, instead we ought to understand and collect information of *how* state-owned investors in Sweden are working with ESG issues. However, they are all state-owned but have their own policies to work after, with certain directives. Since the implementation of ESG in investment decision is rather new we cannot therefore make a fair comparison between them.

Furthermore, since our focus is state-owned investors it comes naturally that the geographical area is restricted to investors in Sweden. Furthermore, we have limited the research to four major state-owned investors active on the venture capital market. Our view is limited in the investors view point and not both directions, between investor and investee.

1.7 Definition of concepts

The purpose of this section is to explain and clarify the concepts that play an essential role in this study and to avoid any confusion that might arise concerning the concepts. This will give a first introduction to the concepts, however a more detailed description will follow as the concept is being discussed. (Definition are received from www.evca.eu, if not other stated)

ESG	Environmental Social Governance *The different areas of ESG:* *Environmental* factor concerns investing in an environmentally friendly way. It includes for example reducing carbon dioxide and other greenhouse gases impact on the climate. *Social* factors concerns how investments affect society. It includes for example labor-conditions, product safety and community relations. *Governance* factors concerns how the company is managed, for example executive compensation and transparency. (www.esgmanagers.com)
State-owned Investors	A state-owned investor is totally or partly controlled and financed by the government. (Isaksson, 2006 p.23)
Private Equity	Equity capital provided to unlisted companies to help develop and strengthen the business idea and structure for an active ownership. Private Equity is also commonly referred to as Venture Capital.
Venture Capital	Equity investments in company´s early stages and expanding phases
Risk Capital	Can be referred to both investments in risky projects and equity capital, commonly used by researchers and legislative bodies (Isaksson, 2006 p.13)
Business Angels	Private individuals that provide capital to investee companies

CSR	Corporate Social Responsibility. An equivalent concept with SRI that incorporates implementation of sustainable development by corporations. (Novethic, 2010)
PRI	Principles for Responsible Investment, a framework constructed by UN to guide Private Equity investors with the integration of ESG issues in the investment process (UNEP FI & UN Global Compact, 2009 p.3)
SRI	Social Responsible Investments
EVCA	European Private Equity and Venture Capital Association, a non-profit association working in the interest of the private equity and venture capital industry
SVCA	Swedish Private Equity and Venture Capital Association, a Swedish version of EVCA supporting actors active in the Swedish Private Equity Industry (www.svca.se)

2 Theoretical Method

Here we will discuss our preconceptions, the research approach and philosophies. This will provide a better understanding of how the thesis has progressed and the approach for constructing the theoretical framework. Moreover, the collection of secondary data together with critic toward the secondary data will be presented.

2.1 Choice of Subject & Preconceptions

Considering this is a master thesis and the final examination of our Business studies at Umeå University, we believe we have a widespread knowledge base in the area of business and further finance studies. Since prior knowledge in the research area may facilitate the interpretation of information and contribute to a deeper understanding of the subject. More specific studies in venture capital have been assessed during a master course, and one of us gained deeper knowledge in the area during an internship for a venture capital firm earlier this spring. This was also what guided us into the chosen subject. Further contact with supervisor Anders Isaksson, who is researching in venture capital and ESG issues, inspired us to our research question.

When conducting a research it is important to be aware of problem concerning objectivity and keep an open-minded approach. Since own values and subjectivity may affect the validity of the research (Bryman & Bell, 2007 p.30) Strass and Corbin (cited in Fejes and Thornberg, 2009 p.56) explain objectivity with an ability to create a distance to the study material and the empirical findings. However, we are aware of problem concerning objectivity and will therefore try to keep an open-mind while conducting the study in all perspective.

2.2 Research Approach

The research approach is commonly referred to two fundamental approaches, inductive and deductive approach. (Fejes & Thornberg, 2009 p.24; Bryman & Bell, 2005 p.297) Depending on the research question and what is to study, one or the other might be best suitable for the study. In the inductive approach the author draw conclusions from empirical evidence, where the researcher moves from observation to building theories. While the deductive approach is contrary and the author draw conclusions from theories and try to confirm whether it can be applied in reality or disproved. (Ghauri & Grönhaug, 2002 p.13-15)

This study is based on primarily the deductive approach where we used theories as a starting point and then built the empirical framework. However, there is also an inductive perspective, considering there are no specific theories we could apply due to the fact that it is a new area of research. Therefore, existing practices guided us to some theories applicable for the study which influenced an inductive approach. Fejes and Thornberg (2009 p.24) argue there is a risk in a deductive approach to be too focused on proving the theory and less sensitive toward empirical findings. Since, our study has an inductive influences we do not think this will be a problem. Nevertheless, we do feel the deductive approach is the major approach followed in the study where the theories have helped explain the findings.

2.3 Research Philosophies

The following section is included to give the reader knowledge regarding where the authors stand when it comes to fundamental questions regarding how knowledge is viewed and the nature of reality. It is important to understand that how the writer views these questions will affect the research design as well as reflect how facts and theories are being interpreted. (Fejes & Thornberg, 2009 p.21) We will focus on two fundamental issues in this section, *Epistemology* and *Ontology*.

Epistemology refers to what knowledge is considered acceptable knowledge and how new knowledge is created. Two main approaches are *positivism* and *interpretivism*. In the positivistic view, only knowledge build by "real" facts or resources is to consider real knowledge. This makes the knowledge harder to bias which is why this type of facts is referred to as objective knowledge. In interpretivism on the other hand, knowledge is built on feelings and attitudes that could not be seen. Modified or measured are also considered real knowledge, even though it does not have an external reality. This approach suggests that it is necessary for the researcher to understand social actors and how the reality depends on the people that interpret it. (Saunders et al., 2007 p.102-107) The positivistic view is mainly used when facts used in the research are observable in reality, in business research that might for example be when large amount of data is collected. However, some researchers argue that the interpretivistic view is more suitable in management and business science as every organization is unique and because of the complex situation within an organization. (Saunders et al., 2007 p.102-107)

Ontology refers to the nature of reality. The two main approaches are *objectivism* and s*ubjectivism.* The objective view suggests that the reality exists external to social entities. Subjectivism on the other hand suggests that a social phenomenon created from the perceptions of social actors and that this reality is constantly changing. (Saunders et al., 2007 p.108)

In this study we have conformed to the interpretivistic stand on how knowledge is viewed and the subjectivistic approach when it comes to the nature of reality. The purpose of this study is to understand how state-owned investors integrate ESG issues in their investments. In order to fulfill this purpose in a satisfying way we need to understand that state-owned investors are organizations with social actors that are unique and that social interaction within and between these organizations are complex.

We will present theories that describes social phenomenon that could not be seen or measured. It is therefore necessary for the reader to understand that these theories might have been interpreted by the authors to fit the research area. Theories and facts that are presented and discussed through this study cannot be generalized in every situation or organization.

2.4 Secondary data

Secondary data play an important role for researching as it helps with the process of answering the research question and provide us with general information in the chosen subject. Additionally, secondary data provide information collected by others where the purpose may differ from our purpose. (Ghauri & Grönhaug, 2002 p.76-77)

The collection of secondary data has primarily been received from Umeå University library and UB database, Business Source Premier where peer reviewed was used to increase reliability of the articles. We started searching for relevant journal articles in general written in the subject of venture capital and sustainability. In order to gain information concerning ESG issues and previously written reports in the area we used Google as a general search engine, where working papers related to ESG and reports from United Nation concerning sustainability issues/implementation were found. Additionally, relevant publications and journal articles have been provided from our supervisor, Anders Isaksson, who has written several publications in venture capital and ESG issues.

Concerning the existing practices used we had a hard time finding existing practices that was directly applicable for this study, probably because ESG issues in early-stage investments are relatively new. Still, we found it necessary to search for existing practices to understand how state-owned investors might handle these issues, before making our empirical study. This forced us to use similar research and apply it to our research, studies that might have a slightly different focus. For example research that focus on related sustainability terms such as CSR or SRI have been used, as well as studies that concerns private equity investments in general. One additional study by *Insights Invest* was included. Insight Invest is a private asset investor, but the study was included due to its useful contributions to the research area.

Furthermore, important sources of information have been Almi, Industrifonden, Innovationsbron and The Sixth AP-fund´s website´s together with their annual reports. Their website´s and annual reports have been used as a complement to our qualitative study. The primary data will be discussed further in the practical method chapter since it is data collected through a qualitative or quantitative method. (Ghauri & Grönhaug, 2002 p.76)

2.5 Critic of Secondary data

This section refers to revising our secondary data that have been used in the study. This is to clarify the validity, reliability and relevance in the data used. Is the data valid and measure what is intended, the relevance for the study and the accuracy of the data, the reliability. (Wiedersheim-Paul & Eriksson, 1999 p.151) Nevertheless, Wiedersheim-Paul and Eriksson (1999 p.151) further state that it may be difficult to classify ones data accordingly, hence at least develop a subjective view on the data’s fulfillment regarding these requirements. When searching for journal articles in Business Source Premier, peer reviewed was used to help increase the reliability of the article, since more than one has read it before being published. However, when using Google to find information we used our own judgment in the criteria’s, but since our data had been cited by others and most were published articles, we found no reason not to use them with an open-mind.

Reports from United Nation and governmental publication we found trustworthy by nature due to its origin. Furthermore, all data used in the study have been evaluated after its relevance for the study and interesting data that were not relevant for this specific study has therefore also been excluded. Concerning whether our data is valid, we have not done a deeper evaluation of the secondary sources, thus we do rely on that published literature, data and reports from larger organizations are trustworthy and measure what they intend to. Nevertheless, we have used all our data with an open-mind and tried to view our data from the validity, reliability and the relevance perspective.

Moreover, critic can be directed to the data used related to CSR (Corporate Social Responsibility), SRI (Social Responsible Investment) and PRI (Principles of Responsible Investments) considering that we found it difficult to find specific ESG data. However, these concepts are all related to sustainability and responsibility factors, we therefore found them appropriate for our study.

Concerning the time span of our data we have used some older sources in the theory chapter, and more recent sources concerning ESG and sustainability issues. The older articles from Sahlman, Eishenhard and Akerlof used in the theory chapter were used since they are all vital and well cited sources in their area of venture capital, agency theory and information asymmetry. Therefore, we found it more accurate to cite original source, since we still found them valid in their topic. ESG articles and publications became naturally more recent information since it is a focus that been adapted in more recent years.

3 Theoretical Framework

The theoretical framework is divided into three parts. As this research area is relatively new we found it necessary to make this breakdown in order to provide a more structured chapter. The first part is included to provide a deeper understanding of venture capital investments, state-owned investors and the investment process. In part two we analyze specific issues related to venture capital investments and tools that are used to reduce these issues. We will also present existing practices on how to implement ESG issue into venture capital investments. The chapter ends with a summary and a framework of how state-owned investors could work with implementing ESG.

3.1 PART I - Theoretical Introduction

This part aims to provide a deeper knowledge and understanding on the subject. It is necessary to understand the venture capitalist industry before looking at how ESG issues can be implemented into investments. This part discusses the characteristics of venture capital investments and how state-owned investors act as venture capital investors as well as the fundamental steps in the investment process. This process includes several steps that could be subjects for ESG implementation and will therefore be discussed frequently throughout this study.

3.1.1 Venture Capital Investments

A venture capital firm can be described as a vehicle where investments of equity and equity related sources are distributed to private companies which are not listed on a stock exchange. (Berwin, 2006 p.11) Furthermore, the term venture capital can also be referred to as ‘private equity’ even if the later term has a broader meaning to it and covers different types of investments however, it is simply expressed as investments made by institutions, firms or other investors in companies in their early stages. The venture capital process involves mainly three large actors, the investor, the venture capitalist and the investee company (the entrepreneur) (Isaksson, 2006 p.6, 15).

Moreover, as companies are in need of capital in order to develop its business they can turn to venture capital investors for financing in exchange for an ownership share. (Verksamhet, 2009) Venture capital has become an important form of financing for new businesses, as they are characterized of high risk, uncertainty and most likely to have several years of negative earnings. In those situations it is not likely to receive traditional bank loans. (Gompers & Lerner, 1998 p.151) Therefore, venture capital plays an essential role in order for further development of the business since they specialize in these high risk projects which may potentially also be highly profitable. (Tyebjee & Bruno, 1984 p.1051; Gompers & Lerner, 1998 p.151) These companies can then be financed by equity capital, debt capital or a mixture of them both depending on what is agreed upon between the parties. With equity capital the investor takes a higher risk but in exchange for that a higher return on the investment is expected. It is generally know that it is only a small percentage of venture capital financed project that become successful, and gives a high return back to the investor. However, other types of financing can also be provided known as debt capital, where different types of loans can be offered, however will not be focused in more depth in this study.

With venture capital, the venture capitalist invests in the investee companies for a limited period of time, usually 3-10 years depending on industry and company situation. The investor will if the company succeeds on the market earn a profit of the company when it will be sold, or an IPO will be confirmed, where the company will be listed on a stock exchange. Most commonly for a venture capital firm is to investment in small/medium sized companies in an early expansion phase, where the investor sees a growth potential of the business. (Verksamhet, 2009) The venture capitalist generally takes an active part in the company together with the ownership share; seat in the board of directors and expected to continuously monitor the progress of the firm in order to promote growth. (Gompers & Lerner, 1998 p.151) Furthermore, an advantage with venture capitalist is that they possess expertise and knowledge that is of interest of the company in order to grow. In fact, venture capitalists often have several years and a broad knowledge from other companies in the same industry and situation, as well as valuable contacts. Compared to other financing solution the venture capitalist does not only add equity capital into a company.

Additionally, by providing risk capital (i.e. venture capital/private equity) investors are also expecting to get their initial investment times a multiple in return, hence investments in private companies are commonly in a long-term perspective. Furthermore, the initial investment in a company is often targeting a certain phase in which the investor (i.e. business angel, venture capital, buyout) is being specialized in. Together investors create an important value chain in which different investors provide equity capital in different phases of the company. The different phases are commonly referred to as seed financing, start-up financing, (i.e. venture capital), expansion stage financing and buy out. (Riskkapitalåret, 2008 p.42; Sahlman, 1990 p.479; Isaksson, A. 2000 p.7)

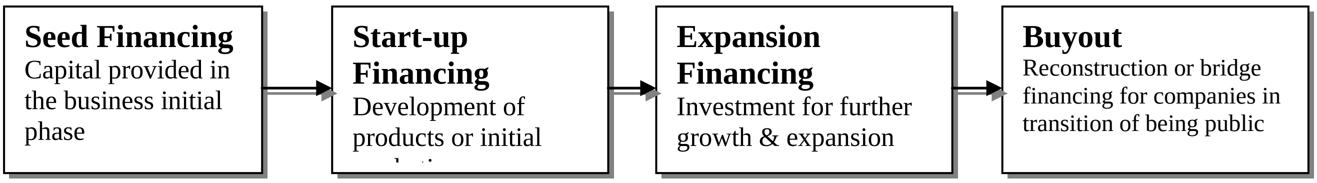

Figure 1. Investment phases (SVCA, 2008 p.5; Isaksson, 2000 p.7)

3.1.2 State-owned investors in the venture capital industry

State-owned investors play a major role on the financial market to promote economic growth, where they have both a direct and an indirect role/influence in the venture capital industry. As just mentioned, larger investors can engage in both direct investments to companies, or indirect through private equity funds and investment companies. (Isaksson, 2010 p.13) In indirect investments through venture capital firms/funds the state-owned investor often takes the role as a limited partner. (SVCA, 2008 p.7)

A common structure of venture capital firms are organized as a limited partnership. The limited partnership refers to a fund with different actors, where the limited partners provide capital and the venture capitalist firm acts as general partner of the fund (Sahlman, 1990 p.487). Common limited partners are often state-owned investor and wealthy individuals (i.e. business angels) with capital to invest. A fundamental point with this structure is that investors that provides capital and then engage as a limited partner has limited responsibility and is only responsible for the amount of capital that has been contributed into the limited partnership, the fund. (Berwin, 2006) Thus, the venture capitalist, fund managers are responsible for the debts that exceed the responsibility of the limited partners and the distribution of capital to portfolio companies, the investee. (Berwin, 2006) As direct investor, there are no intermediary channels and investments are made directly in the company, as a venture capitalist.

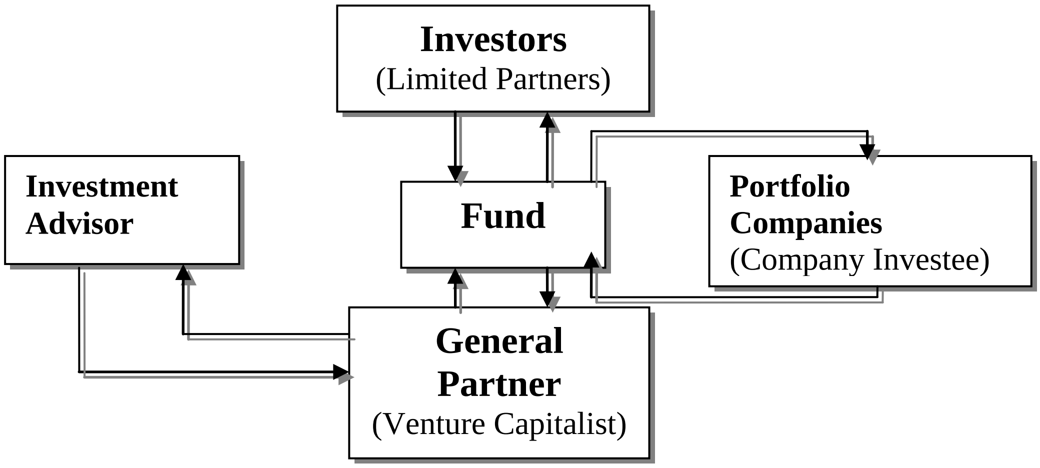

Figure 2. Venture Capital Firm/Fund structure (SVCA, 2008 p.8)

It is vital to understand the structure in which state-owned investors interact on the venture capital market and engage in different investment channels. An assessment that is important as an initial step in this study, how state-owned investors interact in venture capital. Through the direct investments and indirect through an intermediary it is clear that these investor play a large role for promoting economic growth in the venture capital market as both a direct and indirect actors.

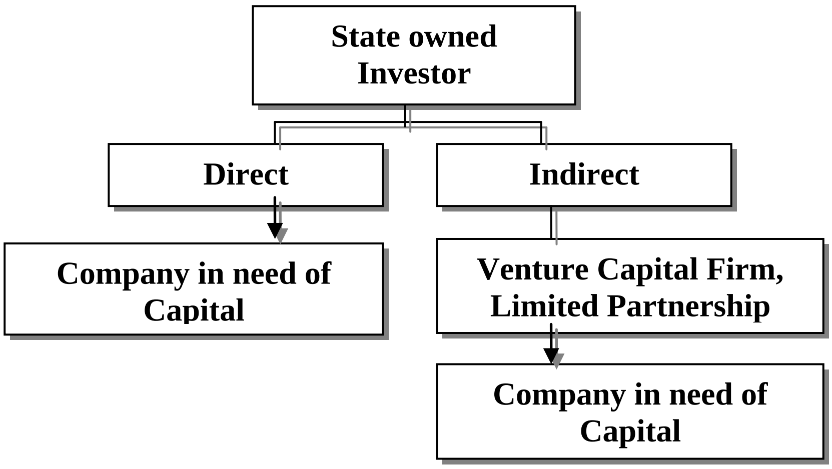

Figure 3. Direct/Indirect investments of state- owned investors (own creation)

3.1.3 The investment process

Pre-investment process

Venture capitalist receives a large amount of new business prospects which are seeking funding for their projects, however it is only a small fraction that is being invested in. (Tyebjee & Bruno, 1984) Sahlman (1990 p.475) states that a typical venture capital firm receives around 1 000 business prospect a year but only a dozen is provided with capital. It is therefore important for the venture capitalist to determine whether to go further with a potential prospect or not. This initial step, called deal flow or screening is a crucial step where a business prospect is being considered for a potential investment. (Tyebjee & Bruno, 1984) Here, the venture capitalist decides whether it is of interest to go further and if it is within their area of investments. Venture capitalists often focus on investments in certain industries and geographic areas in which they possess best knowledge and expertise in. (Sahlman, 1990 p.489)

If the prospect is being considered for an investment the venture capitalist undertakes a process where a thoroughly investigation and analysis is conducted, referred to as due diligence. Here, all factors from market potential to legal issues is analyzed and gives the deeper insight whether the prospect meet certain criteria's and strategies. (Camp, 2002 p.1) The analysis will further assess the prospects level of risk and its expected return. (Tyebjee & Bruno, 1984 p.1051) The purpose with this process according to Camp (2002 p.1-2) is to be able to make good investments and that will clearly give them a high return at a later stage. If the business prospect is still attractive after the due diligence analysis, the parties enters into an agreement where capital is provided for a share of the company. Thereafter follow an important long term commitment between the parties, from initial investment to an exit. (SVCA – Info kampanj, 2005)

Post-investment process
Once the agreement between the venture capitalist and the investee company has been signed the venture capitalist steps in as an active investor. (Gompers & Lerner, 1998) As an active investor the venture capitalist monitors the company in strategic decisions and can provide their expertise and industrial knowledge. With a seat in the board of directors the venture capitalist can also intervene in management issues and make replacement if found necessary. (Tyebjee & Bruno, 1984; Gompers & Lerner, 1998) By supporting and actively advice the company the venture capitalist adds valuable inputs that increase the company´s success rates. Even additional financing rounds can be provided during the investment process (Sahlman, 1990 p.475) Generally, it is the venture capitalist that actively monitoring and directing its portfolio companies to become successful and profitable, where the limited partner is restricted. Nevertheless, the venture capitalist has an obligation towards the limited partners and the limited partners usually have a seat in the fund´s board of director and voting rights in general issues. The general issues concern limited partnership agreement to questions related to portfolio companies. (Sahlman, 1990 p.490) Furthermore, it is the fund´s board of director that makes the final investment decision and exit strategies. (SVCA, 2008 p.7)

Moreover, as the investment period is getting close to an end, the venture capitalist want to exit, meaning sell the company to the best alternative. The investor then enter into an exit phase searching for the best alternative for an exit, which is usually through selling to another investor, merger, acquisition or an initial public offering. (Tyeebjee & Bruno, 1984) When the company is being sold the investor hopefully earns a profit on its investments. If the investment would turn out to be unprofitable and no growth potential the investor can start a process of liquidation and terminate the company, however is not a profitable situation. (Sahlman, 1990 p.483) Nevertheless, the post investment process is where investor can have a close relationship with its portfolio companies and where they require continuous budget and progress reports. Furthermore, the integration of ESG issues in the company structure can be monitored and evaluated, which is in focus in this study. However, important factors where the implementation of ESG issues can be integrated are in both pre and post investment process, where the following factors will summarize the process.

- Deal Flow/ Screening
- Due Diligence
- Monitoring and Support

3.2 PART II – Problems within venture capital

In this part we will discuss issues that are common within venture capital investments and organizations and what tools that could be used to reduce these problems. The discussion takes us one step closer to fully understand the complexity of implementing ESG issues and how investors could work in order to effectively implement them into investments. Theories that will be discussed are principal-agent conflict, information asymmetry, moral hazard and adverse selection. To broaden the perspective we have also included other studies that discuss problems with implementing ESG issues.

3.2.1 Principal-agent conflict

We already discussed how venture capital investors act as intermediaries between fund-providers looking for an investment and young firms in need of funds. This two-way interaction leads to an unusually complex principal-agent situation, as venture capitalists works as principal towards the management of the financed firm and at the same time as agents towards the investors. (Wright & Robbie, 1998 p.533) The conflict comes from the contraries interests that may exist between the principal and the agent. (Eisenhardt, 1989 p.58)

The agency costs arise when venture capital firms have to act as both principal and agent. As agents, the venture capital firm may experience pressure from the fund-providers in generating returns from their portfolio companies. Acting as principals, problems with adverse selection and moral hazard might occur as a result of information asymmetry between venture capital and the management of the financed firm. (Wright & Robbie, 1998 p.533; Eisenhardt, 1989 p.61) Venture capitalist can manage these risks through, monitoring, using diversified portfolios in order to offset some risk and demand high returns. Wright and Robbie (1998 p.533) mean that agents and principals need mutual interests to mitigate these risks.

Smith, J-L (2004 p.757) means that a system of control and monitoring should be install, by the investor, first thing after a deal has been closed between a venture capital firm and the fund-provider. This system is needed for the investor to control the newly established relationship. Smith further argues that incentives are needed for venture capital firms to lead them in a desirable direction. Usually these incentives are profit-based as the investors´ objective is financial. (Smith, J-L., 2004 p.757)

3.2.2 Asymmetric information on the financial market

As is generally know, there is no perfect market where all participants have access to all information on equal terms. However, it is due to the non perfect market and the different access to information that creates competition and market efficiency. Moreover, this is an essential role in the venture capital industry since venture capital investors have different knowledge and risk assumptions regarding an investment. Svensson (2006 p.31) points out in his research that innovators have more knowledge and information about an innovation than external investors. Consequently, this creates problems on the financial market concerning asymmetric information which leads to adverse selection and moral hazard. (Svensson, 2006; Baeyens & Manigart, 2003)

Asymmetric information is a common concept on the financial market, where actors on the same market possess different information, given one actor has better information than the other. A CEO and the board of directors know more about a company's profitability than its shareholder or a seller in general knows more about the product quality than the buyer.

(Löfgren, Persson & Weibull, 2001 p.527) In our case, the investee company has better information about their company than the venture capital investor while at the same time the investor might have better information regarding the potential market than the company. Amit, Brander & Zott (1998) state that an environment with information asymmetry is important as it gives venture capital investor a comparative advantage because of their specific ability to monitor and develop new businesses. They even go deeper and state that information asymmetry is the key in venture investments. Hence, Bergemann and Hege (1998) state in their research that information asymmetry is something that develops over time between the investee company and the venture investor as financing is provided.

Akerlof (1970 p.489-490) is one of the most referenced sources when it comes to information asymmetry. In his paper “The Market for Lemons” he argues that a seller have perfect information about a product´s quality while the buyer do not access that information, consequently it can turn into a market with only low quality products. He explains the information asymmetry through the concept of good and bad quality cars (lemons) on the market. Where the buyer do not know if he will buy a good or a bad car since it is only the seller that have that information. He further state that this drives out the good cars on the market and only leaves the market with bad ones (lemons), since they are sold at same price. (Akerlof, 1970) Transferring Akerlof´s “Market of lemons” to our study one can relate it to good and bad investments. Thus, an important role for the venture capital investor in order to reduce information asymmetry is to make thoroughly due diligence analysis and actively monitor the investee company. This gives the venture capital investor comparative advantage to uninformed investors of making profitable investments. (Baeyens & Manigart, 2003 p.50)

Amit et al., (1998) divide the asymmetric information market into two types; hidden information and hidden action. The first one referring to hidden information takes place when one actor holds information that is not available to the other actor. In the venture capital industry this can occur as the investee company may possess information about the prospective future of the business that is not known to the venture capitalist. The concept of hidden information may occur as the investee company might have incentives to overestimate the potential success of the company, in order to be a more attractive investment. As a result, the market is being filled with overestimated projects and it becomes difficult for investor to tell apart good ones from bad ones. This type of information asymmetry leads into a situation of adverse selection. (Amit et al., 1998 p.443)

The second type of information asymmetry, hidden action refers to situation where one actor cannot monitor the other actor´s actions. This can occur in several financial situations, in the venture capital market this can occur when the venture investor is not able to supervise the investee company and its action. The investee company might be aiming for one goal which is not in favor of the investor´s goal for the company, the investor is not able to observe whether the investee allocates the investment in the best possible way for a potential success. This situation then turns into a problem of moral hazard. (Amit el al., 1998 p.444; Bergemann & Hege, 1998 p.710)

3.2.3 The problem of adverse selection and moral hazard

The previous described situations are environments that are common in the venture capital industry and thereof a problem that venture capital investors are aware of and then also find important to reduce (Amit et el., 1998). Baeyens & Manigart (2003 p.50) points out that due diligence analyze and continuous data collection and processing reduce these problems and open doors for profitable investments. Furthermore, an intensive analysis about the company and the potential market it will operate in will contribute to lower degree of potentially adverse selection situations. The moral hazard problem can further be reduced through well defined financial contract, with specific fund allocations and goal incentives. Hence, when funds are provided to the investee company a close monitoring relationship of the company will further reduce the moral hazard problems. (Baeyens & Manigart, 2003 p.50)

Amit et al., (1998) argue that situations of adverse selection and moral hazard are specifically characterized in situation of venture capital financing, however it might occur in any financial environment. They further state that larger firms can provide collateral and already have an established reputation which makes the investment safer and reduce the negative information asymmetry situations. An early established venture lacks the previous mention features and thereof is also more exposed to adverse selection and moral hazard. Thus, as also stated these are situation in which venture capital investors can use their skills and develop a competitive advantage to other investors. (Amit et al., 1998) Furthermore, since both the investee and the investor are ought to maximize their wealth in the project it is in their own interest to create favorable decision in their interest, hence then is not always profitable for the other party.

As the information asymmetry problem has been discuss and its relevance in the venture financing environment it has been shown that the market is not perfect. Investee and investor are known to be striving for wealth maximization in favor of their own interest. Hence, as also mention there are existing factors on the market that ought to reduce these problems. Therefore, we find this important to clarify these situations to gain deeper understanding and be able to continue with our study.

3.2.4 Specific issues with implementing ESG factors in venture capital investments

The private equity market is, according to Blanc et al. (2009 p.8) frequently under attack due to its strict focus on financial goals and short-term perspective. These two perspectives of private equity investments could, according to Blanc et al. (2009) lead to a lack of interest for ESG issues.

Blanc et al. (2009 p.14-15) also points out several other issues specific to private equity investments. Diversity of portfolios is one such problem. Because companies financed are operating in different markets and are in different development stages, the ways that ESG could be integrated are very different which makes such activities complicated and time-wasting. Another problem is lack of structure and resources with young firms to produce necessary reports. By nature, young firms have their focus in growth and development, which results in bad communication. One final issue presented by Blanc et al. (2009) is absence of extra-financial research. Until today, research in this area has been concentrated on large publically listed companies. For investments in these companies, investors use rating available on company’s performance in corporate responsibility. However, the debate on implementation of sustainability factors in growth companies is still in its initial state and because no such system exists for small firms which make it harder for investors do evaluate considering these issues. (Blanc et al., 2009 p.14-15)

Insight Invest, one of the largest asset investors in UK, presented in a study from 2009 the challenges they faced in the integration-process of ESG issues. The study presented a set of areas that should be considered when implementing ESG. (Insight Invest Management, 2009 p.1-2)

The initial conclusion focuses on the fundamental matter of when to include ESG consideration into the investment process, at what stage it is relevant to discuss and integrate it. The study also shows that the timeframe of the investment is crucial. Short-term investment tends to involve low ESG consideration. Another lesson learned is that understanding the people is the key. In the bottom it is the people that make the decisions and the view of whether an investment is good or bad might differ from one investor to another. Therefore, it is important to host meetings and encourage interactions between investors to create understanding. The study also stresses the importance to work with feedback and to send signals to the market that investors do take ESG issues in consideration when choosing investments targets. If not, there is a risk that these matters fades and only stays on a theoretical level. (Insight Invest Management, 2009 p.1-2)

3.3 PART III – Existing Practices

This part is exclusively dedicated to existing practices. We will present several guidelines and practices that could help investors to implement ESG issues into venture capital investments. It is hard to find existing practices and guidelines that involved both the perspective of state-owned investors and the venture capital concept. We have therefore broadened our view and also included guidelines on ESG implementation into private equity and venture capital investments in general. From the practices we will develop a framework on how state-owned investors can implement ESG issues, a framework that will later serve as a template for the empirical study.

3.3.1 Principles of Responsible Investments (2009)

PRI (Principles for Responsible Investments) are guidelines created by United Nations Environment Program Finance Initiative (UNEP FI) and the UN Global Compact aimed to help investors to act in a responsible way when investing in private equity. The framework was originally created for the private equity market but is also applicable on other type of investments as well, including the venture capital market. PRI are useful for large institutional asset owners such as pension funds and fund managers and focuses both on the pre-investing stage and the post-investing stage. (UNEP FI & UN Global Compact, 2009 p.4)

Generally, the guidelines include developing and communicating a policy outline towards ESG and ensuring that all surrounding partners are aware of that policy. It also states that direct investors should have substantial training and expertise on ESG issues and how to manage them. The due diligence analysis should have a section exclusively focused on ESG issues with follow-up directives on how the portfolio company meet these criteria. (UNEP FI & UN Global Compact, 2009 p.6)

Concerning the role as limited partner, the investor takes a more passive role and the ability to actively control a portfolio company is restricted. Therefore there are great advantages with addressing ESG issues before making an investment in the fund. The pre-investment work is centered on analyzing and communicating. Making sure that the fund manager has the required systems, knowledge and policies to manage ESG issues. To inform the general partner on the investors approach to ESG and ask how the fund manager can support this approach. Investors could also make some research on how well the fund manager has behaved in the past. A great deal of documentation should also be made prior to investing explaining the mutual understanding of ESG issues between the investor and the fund manager and what report the limited partners could expect during the investment period. (UNEP FI & UN Global Compact, 2009 p.7)

The post-investment activities are just as important as the pre-investing activities, even if the investors take a more passive role. However, in the post-investment process the two most important factors are monitor and support the company. Monitoring refers to request information and receive updates on how the ESG work proceeds. The engagement should include to formal and informal establish and maintain a dialogue with the fund manager (venture capitalist). Post-investments activities also include encouraging the general partner to construct its own ESG policy and communicate it to the portfolio companies. (UNEP FI & UN Global Compact, 2009 p.8)

3.3.2 Wood and Hoff (2007)

Wood and Hoff (2007) have developed a handbook in collaboration with EuroSif and the Social Investment Forum for Responsible Investing where they discuss the challenges and opportunities with integrating ESG issues into decision-making. The aim of the handbook is to help investors to incorporate responsible investments methods into their investment mandate, for example state-owned investors. (Wood & Hoff, 2007 p.43)

Wood and Hoff (2007) highlight venture capital as a unique opportunity to direct funds in order to influence companies to incorporate ESG issues in an early stage and encourage entrepreneurs to develop sustainable innovations. In order to be successful in the integration of these issues Wood and Hoff (2007 p.43) suggest three major activities or areas that are important to the investor.

The first activity relates to increase the availability to responsible investments, where investors could create pipelines of potential investments based on ESG criteria. In this way the entrepreneurs that integrate ESG issues into their business idea has a possibility to show off and somewhere for investors to search for “good” investment alternatives. At the same time the investor can set up their own standards and ESG criteria’s for the targets. (Wood & Hoff, 2007 p.44)

Investors also need access to information. The pressure and requirements to report are by nature less heavy for smaller firms. It is therefore up to the investor to demand for necessary documentation to be able to monitor the firm and reduce asymmetric information. If the investor take a more active role in the fund by for example holding a board seat, the opportunity rise to monitor the firm from the inside. This means that the investor can force the firm to prepare summaries that includes ESG related information such as, technological developments, work creations, employee benefits, work condition improvements and environmental efficiency. Furthermore, a fundamental and vital step is to formulate ESG policy’s and processes for the general partner to follow and to include in the due diligence activities. This is especially important for within venture capital industry that is often very product-oriented. A technical assessment with consideration to environmental and social issues should be included in the due diligence process.
(Wood & Hoff, 2007 p.46)

The last activity stresses the importance of active ownership. Investors in venture capital should use their ability to control and influence the firm from the inside to direct the firm towards an ESG beneficial approach. Moreover, the firm should be encouraged to integrate ESG into their internal practices and systems according to Wood and Hoff (2007 p.47).

3.3.3 Graaf and Slager (2009)

A third study, made by Graaf and Slager (2009 p.2-13) mean that the way state-owned investors handle sustainability factors in their investment process depends on the fundamental motive. The theory is based on the assumption that state-owned investors are driven by instrumental, moral and relational motives for implementing sustainability factors. These underlying motives lead to three different types of strategies, financially-driven, ethically-based and value-ensuring. Juravle and Lewis (2008; cited in Graaf & Slager, 2009 p.13) mean that the values, beliefs, structures and processes of an organization are crucial for a successful implementation of sustainability factors.

Central in the theory is to delegate roles and responsibility for different activities in the investment process. The board of directors is responsible for strategic asset allocation, e.g. determine the long-term goals. The CIO (Chief Investment Officer) is responsible for construct the portfolio to achieve the goals set by the board. The portfolio manager responsibility to select, monitor and evaluate investments to realize the strategy. The critical task is to have all persons in the chain to work in the same direction. (Graaf & Slager, 2009, p.2-13) Juravle and Lewis (2008; cited in Graaf & Slager, 2009 p.13) argue that the board that decides about sustainability policy and the staff that implements the policy must share the same values and beliefs. If these fundamental factors are linked, the implementation of sustainability factors will not be successful.

3.3.4 ESG investment strategies

The integration of ESG issues has increased during the last years even though structured approaches in the area are rare (Wood & Hoff, 2007 p.44). As a step to help investors, Wood and Hoff (2007) and Blanc et al., (2009 p.9) have divided ESG practices into several different approaches, or strategies. These strategies are applicable whether an investment is made through fund-of-funds or as a direct investment. The approaches available for investors are either product-focused, community ventures, process-focused or investments. (Wood & Hoff, 2007 p.48)

Product-focused investments means focus on innovations with ESG beneficial features, for example clean technology, renewable energy etc. The possibility to make an ESG analysis in the early stages makes this the approach well suited for venture capital investments. Investments efforts could be made in at the seeding stage which provides a great opportunity for high returns or it could be made in one of the later stages when the technology is proven in order to reduce some of the risk. (Wood & Hoff, 2007 p.48) Blanc et al., (2009 p.9) refers to this strategy as thematic ESG. The authors argue that this approach is the most commonly used, however it has also major downsides. Being suitable for example clean-tech products, the approach is mostly used to satisfy the E, the environmental issue of ESG. This often leads to social and governance issues being ignored. Nevertheless, even if rarely systematically incorporated, the approach could help increasing the overall awareness of ESG issues of private equity investors. (Blanc et al., 2009 p.9) Before investing, the investor should make sure that the fund-manager and the management of the targeted firm has the necessary expertise or knowledge to assess ESG issues. (Wood & Hoff, 2007 p.48)

The second strategy is called, *community ventures*. As opposed to product focused investments that satisfied the environmental issue, these types of investment focuses on the social factor. Important in this strategy is the established relationship with the local community. (Blanc et al., 2009 p.11) These economically-targeted investments mean directing capital to low- or moderate income regions or companies with female or minority owners. In this way the investor could gain financial value by operating in potential unexploited areas and at the same time help to create sustainability by producing jobs and lift the social welfare of these communities. Before making an investment, the investor has to analyze the potential region and consider what type of impact is needed, support for existing firms or a creation of new businesses. (Wood & Hoff, 2009 p.49)

The last strategy is *process-focused investments* (Wood & Hoff, 2007 p.51) or *ESG screening* according to Blanc et al., (2009 p.10). These investments are centered on incorporating ESG consciousness into the targeted firm's decision-making and internal processes. This means trying to form a workplace culture and attitudes towards sustainability. Before choosing a target, investors have to consider how the fund managers or firm managers' performance should be evaluated and what key indicators this performance should be based upon. (Wood & Hoff, 2007 p.51)

3.4 Theoretical Summary - A Framework for implementing ESG issues

The purpose of this study is to answer how state-owned investors implement ESG issues into their venture capital investments. From the theoretical framework we learned that state-owned investors are engaged in both direct investments as a venture capital firm and indirect investments through intermediaries.

We found a set of existing practices that provide guidelines and course of action in the area. Even if most of them could be deducted from the investment process, there are several activities that concern the organization as a whole. From now on we will refer to these activities as internal activities. The activities are showed in the scheme below.

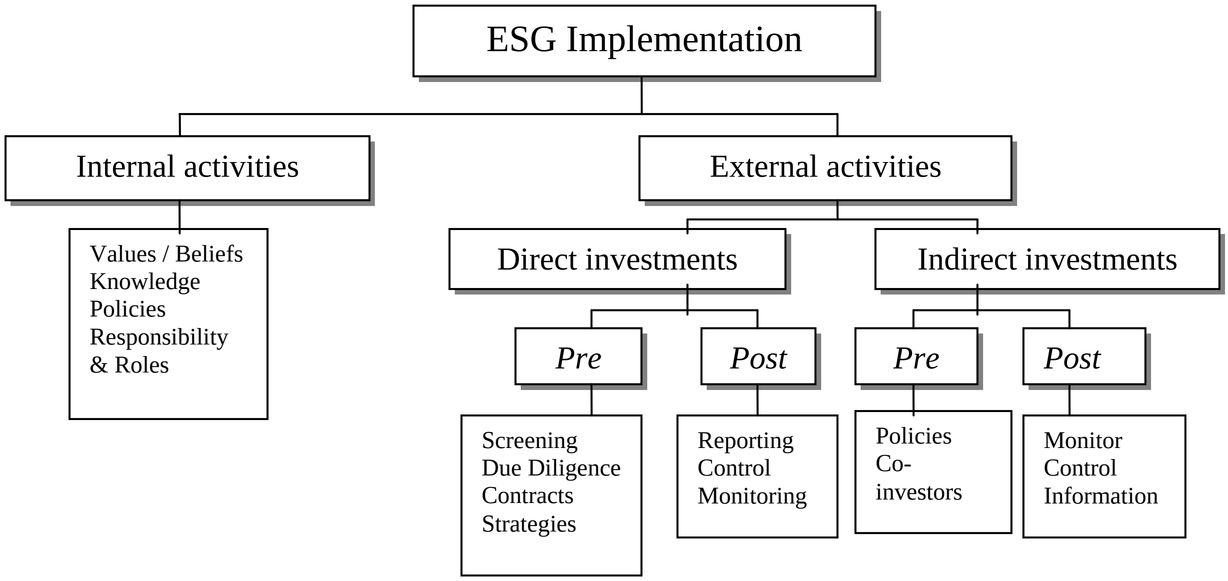

Figure 4. A framework for implementing ESG issues (own creation)

Activities that consider ESG issues should be included both *internally* within the organization and *externally* when the organization engages in investments. Internal activities include working with values and beliefs within an organization as a whole in order to increase the overall awareness of ESG issues. It also includes delegating roles and responsibilities and trying to get the whole organization to work in the same direction. This could be done by for example developing policies for ESG and educate employees and investors.

External activities can be divided into activities used within direct investments and activities within indirect investments.

As a last step activities can be subcategorized into *pre-investment* activities and *post-investment* activities depending whether the activities are made prior investing or during the holding period of an investment.

Pre-investment activities within direct investments include performing due diligence analysis that includes ESG consideration, use a screening mechanism to find targets that are ESG supportive, use ESG based criteria to evaluate investment alternatives, develop strategies that could be used for ESG investments (for example product-based, community venture and process-based), create pipelines to increase the availability of ESG friendly investments and establish mutual contracts and forms were investors and management of the target firm commit to work with ESG issues.

Post-investment activities within direct investments includes actively directing the portfolio company towards ESG, establishing and maintaining system to report ESG activities, control and monitor the company to ensure that ESG commitments are being satisfied and constantly evaluate ESG activities performed by the company.

Pre-investment activities within indirect investments includes informing the general partner of where the investor stand on ESG, evaluate the general partner based on historical ESG performance, encourage the general partner to work with ESG issues in their due diligence and screening mechanism, establish mutual contracts with the general partner to work with ESG issues and find incentives that could be used to reward ESG related performance. It could also include merging with co-investors that has the same values and beliefs.

Post-investment activities within indirect investments includes monitoring and controlling the general partner, make sure that the general partner lives up to commitments and encourage the general partner to keep working with ESG issues.

4 Practical Method

This chapter describes the research design, research method and the sampling frame of the empirical study. This will then lead up to the interview guide and a brief analysis of the conducted interviews. Nonetheless, it should be noted that the interviews are a part of our empirical findings, together with website´s and existing practices. Lastly, the chapter will conclude with quality criteria´s for our study.

4.1 Research design

Our choice of research design is based upon, (1) what method would be best suitable to answer our research question and (2) what sources should best be used to gather necessary data. According to Saunders et al. (2007 p.133) it is the research question that should decide choice of method. As the purpose of the study is to answer *how* state-owned investors implement ESG issues in their early stage investment process, the research method is designed to *explain* this focus. We have also identified two separate sources of information where necessary data could be extracted, interviews with state-owned investors who are working with investments in early stages and secondary data collected from the websites of the state-owned investors.

The used method is a combination of primary and secondary data which are increasingly advocated within business and management research. Working with exploratory studies also gives the researchers a flexibility to adjust the direction of the study as new insights are presented. (Saunders et al., 2007 p.145)

In this study we are working with *qualitative data* and *qualitative analysis*. Qualitative analysis is commonly associated with the interpretivism and subjectivism (Bryman & Bell, 2005 p.298). *Quantitative data* and *quantitative analysis* is more associated with positivism and objectivism (Bryman & Bell, 2005 p.298) and will not be used in this study. The relationship could in a simplified way also be described as qualitative data meaning words and quantitative data meaning numbers. (Bryman & Bell, 2005 p.298; Saunders et al., 2007 p.145)

Two commonly used methods to gather data within qualitative research are interviews and qualitative analysis of text and documents (Bryman & Bell, 2005 p.299) and as already been stated, both methods are used in this study. Furthermore, even as the inductive approach is generally used within qualitative research (Bryman & Bell, 2005 p.297) the approach in this study is mainly explained as deductive as previously discussed in section 2.2.

4.2 Qualitative study with interviews

The interviews conducted in this study were *semi-structured*. A semi-structured interview means that specific themes are presented and the interviewee is encouraged to talk relatively freely around the subject. This type of structure offers flexibility and also the possibility to ask additional questions if needed. (Bryman & Bell, 2005 p.361) Unstructured interviews are another type of interview that is also commonly used in a qualitative research. In these so called *in-depth interviews*, the respondents are expected to talk almost entirely freely around a subject without any questions asked (Saunders et al., 2007 p.312).

Due to the research area we found it necessary to use semi-structured interviews. The interviews were designed to answer how they implicate ESG issues in five major areas. The structure of the interview guide will be presented further in section 4.3.1 Design of interview guide. This way of using themes would not have been possible with unstructured interviews. By using semi-structured interviews we were also able to ask additional follow-up questions during the interview if something become unclear.

The interviews were conducted both face-to-face and through telephone. Due to the limited timeframe of this study, most of the interviews were conducted through telephone. However, one interview was held face-to-face, this was possible due to short travel distances. Hereafter, will critique and potential problems with conducting telephone interviews be discussed.

Since the possibility to establish trust between the interviewer and the interviewee is limited in a telephone interview, this might lead to reduced reliability as the respondents is less willing to answer sensitive questions. Another issue related to telephone interviews is the lost opportunity to observe non-verbal communication. (Saunders et al., 2007 p.342) However, we believe that the questions that might be considered sensitive in this study are not related to any personal circumstance but rather to the organization that the interviewee represents.

4.3 Selection of respondents

While the focus in this study is own state-owned investor and early stage investments (i.e. venture capital) we found it most suitable to contact the four largest state-owned investors in Sweden. This then resulted in a focus on Almi Invest, Industrifonden, Innovationsbron and The Sixth AP-fund for the study. These investors are all involved in venture capital investments, and if we would have included additional state-owned investors the venture capital investment focus would then be lost.

We then turned to each investor ´s website to search for an appropriate interviewee to contact. Thereafter, an e-mail was sent out to each investor where we presented ourselves and declared our purpose with the study. This was done in order to provide the potential interviewee with information and our interest of conducting an interview. We thereafter followed up our e-mails with phone calls where we could refer back to our e-mails previously sent out. They all showed great interest in our study, hence a majority directed us to contact another, according to them a more suitable person in the organization. After additional e-mails and follow-up telephone calls we were able to collect interviews with each organization.

Moreover, we are aware of that the person we were directed to through our initial contact ought to present their organization in a favorable matter and we will therefore keep this in mind. An additional interview from one of the organizations where established through our supervisor, for his knowledge in the subject. However, since not ought to compare the organizations, instead understand how they are working on a practical level we do not find it necessary to have an equal amount of interviews for each organization. Furthermore, information is also received from each organizations website of practical work and sustainability reports. Lastly, we do believe we how found interviewees that possess the knowledge we find needed for the interviews, independently of rank. Hereafter follow a table over the participating interviewees.

Table 1. Participating interviewees

Respondent A	*Fund Manager*	Almi Invest	2010-05-03	Telephone
Respondent B	*Investment Manager*	Industrifonden	2010-05-05	Telephone
Respondent C	*Investment Manager*	Innovationsbron	2010-05-07	Personal
Respondent D	*Project Manager*	Innovationsbron	2010-05-04	Telephone
Respondent E	*Investment Manager*	The Sixth AP-fund	2010-05-07	Telephone

4.4 Design of interview guide

In the interview guide we found it necessary to introduce the interviewee with a short description to ESG, in order to make it clear and not confuse the interviewee with other concepts.

The interview guide is further divided into four parts. The first part consists of three introductory questions. These questions were included in order to get to know the interviewee and to confirm that the interviewee and the organization he/she represents is suitable for the study. The next three parts represent different areas related to the purpose of the study.

Each area has been given one or two core questions that are all based on the model presented in the summary of the theoretical framework. The questions were designed to, as the semi-structured interviews suggest, encourage respondents to talk freely around the subject. Even as additional questions were asked during the interview, no such detailed questions were included in the originally interview guide previously sent out. Nevertheless, the interviewees were in some cases supported with examples of what we meant with the question, see interview guide in appendix.

- The first area concerns *internal processes*. This part only consists of one question and was included to answer how the targeted organizations implicate ESG in their internal activities.

- The second area concerns *direct investments*. This part consists of two questions and was included to answer how targeted organizations implement ESG issues in their direct investments. The first question relates to activities made prior to an investment and the second question relates to activities made during an investments period.

- The third area concerns *indirect investments*. This part also consists of two questions and was included to answer how targeted organizations implement ESG issues in their indirect investments. The first question relates to activities made prior to an investment and the second question relates to activities made during an investments period.

The interview guide was when completed sent out to all interviewees prior to the interview. This was done in order to give the interviewee a chance to prepare for the interview and be able to provide us with more thought through answers. We believe this result in a higher quality of the interview as the interviewee are able to find information in which he/she has less knowledge in, instead of giving a less though through answer which may not then answer our question. Furthermore, by providing the questions in advance we believe it facilitates the analyzing process since we do not have to determine whether the interviewee were not able to answer due to the interviewees lack of knowledge or, there are no established policies in the organization concerning the subject.

4.5 Process and analysis of conducted interviews

The interviews were all conducted during the first week of May 2010. Five of the interviews were conducted through telephone interviews and one personal interview here in Umeå. As the interviews were all conducted during one week, with one or two interviews per day we were able to find a routine on how to conduct them and relevant follow up questions to be asked. Furthermore, since only one or two interviews per day we were able to transcribe an interview before conducting the next one. This contributed to that we were more prepared and were able to only focused upon one interview at the time.

Furthermore, all interviews were held in Swedish with the purpose to be translated into English for the presentation of our findings and the analysis for this study. The translations were carefully conducted and revised in order to avoid possible language translation errors. We also received wishes from our interviewees to be able to view their contributing part before completion. Which we found no reason not to agree with since we are not intended to put our interviewees in a less favorable position or rank their effort concerning ESG implementation. Nonetheless, one interviewee requested us to do minor changes in terms of language and indirect intermediates, however we do not see that this would have a negative effect on our study.

Prior to the interviews we declared that the interview will be recorded in order to be transcribed and analyzed later. We also asked whether it would be alright to use their name or if they would prefer to be anonymous. Hence, all agreed to participate with their name since they do represent an organization. However, even if they approved that we use their name we have chosen to treat them anonymously, due to issues that might be interpreted as sensitive. We also found it important to declare whether they had read our interview guide and was clear with what we meant with ESG. The interviews were all conducted close to or within the targeted time frame of 30-45 min, which we found satisfying considering being a telephone interview and semi-structured.

The first interview was held in the afternoon over telephone as the interviewee was being transported on the train. There were quite a lot of background noises, which resulted in a few repetitions. The interviewee had studied the interview guide prior to the interview and was prepared. Due to the circumstances the interview could have differed if taken place in a more quite place, however not certain. The interview lasted for 27 min.

The second interview was conducted with short notice, also over phone. The interviewee had received the interview guide the day before and stated it had been printed out. The interview was conducted under calm circumstances with no noted distracting incidents. The interviewee talked with high interest and with well thought answers considering short preparation and the interview lasted for 45 min.

The third interview was also conducted with short notice and carried out early in the morning. There were no distracting incidents we were aware of. However, the interviewee was more reserved and asked more questions than previous interviews and wanted more explanation toward our study and our subject. Contrary, we felt we had to ask more follow up question under the interview guide question to receive further information in the subject. This interview lasted for 26 min.

The fourth interview was held in person here in Umeå and lasted for 33 min. The interviewee had printed the interview guide and had made notes to each question. This indicated that he interviewee was well prepared and could give clear and well thought answers. This resulted in only a small amount of follow up questions. Furthermore, the interview took place in a calm conference room at the interviewees work with no distracting incidents during the interview.

The last interview was held in the afternoon over telephone. The interviewee seemed to be calm and discussed a lot to and around our questions to give us a deeper understanding how they are working at their organization. Follow up questions were asked to guide the interviewee back to our guide in question. The setting was calm and no interrupting situation or noises were noted. The interview lasted for 30 min.

To sum up, all interviews have been a valuable contribution of understanding state-owned investor’s practical work with ESG. Each interviewee had to answer for the whole organization, both for direct and indirect investments and their work with ESG even if the interviewee only is working with direct investments. However, since the interview guide was being sent out and all interviewees claim they had read it, we do believe they were able to give a good picture of the organization from both perspectives.

4.6 Quality criteria

Two important concepts when it comes to evaluating research studies are *validity* and *reliability* (Eriksson & Wiedersheim-Paul, 1999 p.38). Validity refers to accuracy of the research, i.e. does the study measure what it is suppose to measure. Reliability refers to whether the research method and analysis results in consistent findings. (Saunders et.al., 2007 p.149) The research community has not agreed to what extent these concepts, which are commonly used in quantitative research, also could be applied within qualitative research (Bryman & Bell, 2005 p.304).

Guba and Lincoln (1994 cited in Bryman & Bell p.306) mean that a whole new set of criteria are needed when evaluating qualitative research. They suggest that these new criteria´s should be based on factors such as of authenticity, credibility, transferability, dependability and conformability. However, LeCompte and Goetz (1982 cited in Bryman & Bell, 2005) argue that the old concepts of validity and reliability could be used within qualitative research as well, but they need to be modified from how they are used in quantitative research to fit for qualitative research. In this study we will follow the old concepts modified to fit this research.

External reliability
The first issue concerns the ability to replicate within quality research. LeCompte and Goetz (1982) refer to this problem as external reliability. As a social environment is constantly changing it is hard to create an identical situation in the future. LeCompte and Goetz (1982) suggest that if a researcher wants to replicate a qualitative study, they have to enter the same social role as the previous researchers.

Since we would like to see a follow up study later on we would like to see a similar study to this one, too see how the implementation of ESG issues are hopefully progressing. The procedure on how we have conducted the study has in a detailed manner been described and stated. From how we constructed the interview questions to how we followed a semi-structured approach and later transcribed and analyzed the interviews. This makes it easier for other researchers in the process of replicating this study.

External Validity

The next issue concerns the transferability of a qualitative study LeCompte and Goetz (1982). A more common term is generalisability (Saunders et al., 2007 p.149). External validity refers to the problem of transferring research based on one social environment such as an organization, and applies it to another orqanization. This problem is important within qualitative research due to the uniqueness of the targets (Bryman & Bell, 2005 p.307). The problem of transferability is also discussed by Guba and Lincoln (1994) who stress the importance of explaining every step in the research process in a thorough and detailed manner to increase transferability.

It should be kept in mind that the study concern sustainability factors such as ESG and SRI which are constantly changing concepts. As this study focus upon state-owned investors that provides venture capital, the possibility for a larger samples size was limited. The finding in this research is based on four major Swedish state-owned investors. However, given the limited number of state-owned investors dealing with this type of investments, we believe the findings in this study give a somehow correct picture of what is done today by state-owned investors dealing with venture capital.

Internal Reliability & Internal Validity

Moreover, the last two factors that will be discussed are what LeCompte and Goetz (1982) refer to as internal reliability and internal validity. To fulfill these criteria there must be a mutual agreement within a research team of how data should be analyzed and interpreted as well as conformability between observations made and the theories that are being developed.

We have worked with these criteria by translating all interviews carefully not to miss or misinterpret result. The purpose of the study and important concepts was properly explained to the respondents in advanced before conducting the interviews. To fulfill this we have discussed and have an open communication between us, which we do find important in order not to go follow same approach and can draw same conclusions.

5 Empirical Findings

This chapter will present the empirical findings of our qualitative study. First an introduction to each state-owned investor will be given, thereafter sustainability according to their website´s and the conducted interviews will be presented. The purpose of this part is to present our result that we then will analyze, draw conclusion from and finally be able to answer our research question.

5.1 Almi Företagspartner AB

Almi Företagspartner AB is stately owned and has been operating on the equity market since it was established in 1994. Almi Företagspartner is the parents company of 21 subsidiaries. Its mission is to help develop small to medium- sized companies grow on the market when no one else does. The funding process covers stages from idea to an established business. Almi provides different kind of loans depending on the business needs. (Almi, 2010)

In 2009 Almi Företagspartner established Almi Invest AB which is the venture capital department of Almi Företagspartner AB. Almi Invest consists of seven regional investment funds with capital from European regional investment fund and Almi together with regional investors. Almi Invest manage SEK 1 billion and provides funding in several different branches and help support companies in early expansion stages with the mission of long-term growth in the regional market. (Almi, 2010)

5.1.1 Sustainability according to Almi website

Almi state in their sustainability report that an important point to assess when working with sustainable development is to emphasize that competition and profitability factors are based on responsibility taking in environmental, financial and social sustainability factors. (Almi Hållbarhetsredovisning, 2010) Where environmental impacts relate to energy consumption, disposal and business travel and the social factors relate more to conditions related to Almi´s employers. It is also stated that all Almi´s costumer relations/activities are with the consideration of sustainability questions as profitability, environment, leadership, gender equalities and work conditions.

"Almi´s mission to create growth and innovation should always be made in relation to sustainable development for the society" (Almi -Hållbarhetsredovisning, 2010, own translation)

Almi further state arguments in their reporting for taking responsibility for a sustainable society; (Almi –Hållbarhetsredovisning, 2010)

- Risk reduction concerning financial risk. Responsibility taking further increases the possibility of becoming more competitive and profitable.
- Promote growth among Almi´s costumer and make them contribute to a sustainable climate
- The importance factor is growing and it is getting more important to have knowledge and competence in the area

The strategies for sustainable development were initiated during 2009, with the aim to integrate sustainability in all their targets, operations and strategies. It further state that the strategies are going to be guidelines and directives in the daily operations.

Almi Group has divided the sustainability implementation into four main areas; finance, consulting, investment management and the organization. It further states that it is in the two first areas the highest potential to influence exist. (1) Almi state they value possibilities and risks form a sustainable perspective in all their loans and venture capital investments. (2) Almi make visible, as an integrated part in all consulting activities the strategic advantage of sustainable development for clients own deal. (3) Almi´s investment management considers investment criteria´s for sustainable development. Lastly, (4) state that Almi further consider sustainable development in its own organization. (Almi –Hållbarhetsredovisning, 2010)

In the sustainability report is says that a sustainable development affect Almi´s interaction with clients, employees, co-investors and other parties. Were it is of importance to keep an open dialog with each party and an even progress in sustainability issues, where each parties demand can be meet and own demand be asked. One example given on an open dialog between other owners is owner directive, board, financial reports and sustainability reports. (Almi –Hållbarhetsredovisning, 2010)

5.1.2 Interview with Respondent A (Fund Manager)

Initial questions

Our first respondent is a fund manager for one of the regional venture capital funds in Almi Invest. Respondent A explains that prior to the current position the respondent was employed at Almi Group and a project manager for the establishment of Almi Invest. The respondent points out that Almi Invest invests in early stage companies, however there are different phases in early stage investments but main focus is on growth/expansion. Respondent A further confirmed that Almi Invest are engaged in direct investments.

Internal process

When we asked whether Almi Invest are working internally with ESG issues and if so how does that work look like, respondent A pointed out that Almi Invest is a part of Almi Group and it is within that area the sustainability policies are being developed. However, respondent A further states that a lot of work is being put on gender equality, in regard to quotations and a good representation in the boards. Also focus on finding female entrepreneurs with foreign heritage is of interest. Concerning any responsible work distribution of ESG issues, it is all under Almi Group hence, each CEO is responsible for their own department. It is up to each investor to reach attractive targets, it could be environmental engineering businesses driven by females etc, however it is difficult making investments and consider all requirements. Thus, it is the responsibility of each fund manager. Respondent A further states that they do have had “tänk jämt” education relating to gender equality issues and believes that there will be more coming concerning ESG since they are in the process and working with it.

Direct investments

When asked whether they are working with ESG issues prior to an investment decision, respondent A answered that it is connected to the marketing toward the targeting group, female with foreign heritage and environmental engineering projects. Ambitions are also to engage in networks of targeting groups and inform in related events. Nevertheless, it is also important to find co-investors with the same ambition within this. The respondent points out that prior to an investment it is about finding networks and informing in events where female entrepreneurs and environmental engineering businesses are represented. In general the respondent points out that ESG issues are included in the normal due diligence analysis, whether there are environmental risks for example, thus in the initial analysis it is not possible to control any gender equalities. However, that is something that can be regulated after an investment decision, as the composition of the board. The possibility to work with certain factors and impact are first after the investment and in the role as a part-owner.

The work during the investment period relates more toward sustain reporting where certain factors are being brought up as environmental issues and gender for example. It all depends on the situation and the business since they are all very different and that determines the essential factors to emphasize. Respondent A further points out that sustainability policies are in progress and may later on be something that can affect investment decisions. Consider Almi Invest has recently been set up and then also possible with changes in this area. At the moment there are no specific requirements of sustainability reporting for their portfolio companies, however it is possible with changes there too. The respondent further explains that priority and the essential factor when making an investment is the growth potential of the business and where a co-investor can be found, everything else is secondary issues. Considering the small number of actual investments made everything usually fall into place at the end. Lastly, the respondent do believe that sustainability policies will be more integrated after further internal related work as it is a subject being discussed within the organization.

Indirect investments
When it comes to indirect investments respondent A could not answer considering it is not the area of Almi Invest, since Almi Invest is only focusing on direct investments and not indirect investments.

5.2 Industrifonden

Industrifonden is a foundation that was established by the Swedish state in 1979. Industrifonden invests on a long term basis in small to medium sized growth companies with the target of achieving value for its portfolio companies. The foundation invests primarily in the industries of Life Science, Technology and Industrial Growth. The investments can be either equity capital or loans made directly or indirectly in companies, indirectly through regional venture capital firms including Innovationsbron. Industrifonden provide development capital and expansion capital for already established companies wanting to take on a larger market share. Industrifonden manage a total of SEK 2.9 billion. (Industrifonden, 2010)

5.2.1 Sustainability according to Industrifonden´s website

The annual report stresses the importance of ethical consideration and responsible investing as an integrated part of making good and profitable businesses. (Industrifonden –Annual Report, 2009)

Industrifonden has based their sustainability work around CSR, this includes ethical consideration, environmental consideration and working conditions. The CSR policy relates to that Industrifonden acts both as an investors and employer. Industrifonden mean that their biggest opportunity to influence the company is as the role of owners.

Industrifonden states that ethical aspects must be considered both in the evaluation of an investment alternative and throughout the life of the company, as a board member.

Industrifonden further states a lot of focus are in following international ethical conventions and policies, for example United Nations declaration on human rights and OECDs policy on corporate responsibility. (Industrifonden, 2010)

A specific policy includes environmental issues. Even as the biggest contribution to the environment is through clean-tech investment, the environmental aspect should be investigated in all investments according to website. (Industrifonden, 2010)

5.2.2 Interview with Respondent B (Investment Manager)

Initial questions
We had one interview over phone with respondent B, who is an investment manager within a department at Industrifonden. The respondent started by giving some general information about Industrifonden and explained that Industrifonden has around 30 employees were around half are working as investment managers and involved in early stage investments. Respondent B further confirmed that Industrifonden are engaged in both direct and indirect investments in which they provide venture capital.

Internal process
When asking whether Industrifonden is working internally with ESG issues, respondent B explained that they are not working under the concept ESG, however they are working with what each letter stands for. Concerning the environment question one of their focus areas are clean tech companies, which is only one example according to the respondent. The respondent further states that in all investments, the environment question the portfolio company is working with is a test factor. When making an investment a virtual scale can used to put positive and negative aspects and then see how the company is being evaluated. Respondent B explains that policies and directives are a part of the investment climate and investments are done in regard to these questions. There is no check list whether the investment fulfill certain directives, instead it is more related to a climate that is important to live up to, were the informal directives becomes part of the climate.

Direct investments
When asking if Industrifonden is working with ESG issues prior to an investment decision, respondent B wanted to make clear that these are questions that are deeply rooted in each investment manager's daily work, to consider from different aspects as informal guidelines. There is no check list to follow as earlier stated. The respondent further explains that when making an investment, dependent on the company in question, if for example process industry related, an important factor is then pollution or energy efficiency. In fact, there are no companies today that are not striving to be energy effective. The question could then be if the company is doing more or less which is also a factor to study. Respondent B does explain that is difficult to measure a company and put it on a scale regarding sustainability. However, if a company has a patent and want to commercialize within the recycle industry it is of great interest to them, hence it is not due to a list of ESG issues they followed.

When it comes to social issues, respondent B explains that Industrifonden has official directives concerning social question and gender equality issues from the management board. Where work to improve gender equality in their companies both on a management level and in the board of directors are in progress. Governance issues are included in the general due diligence process and are also important questions for a venture capital investor to go through, agreements, contracts to how the board is built up and reporting routines etc. Respondent B further states that the concept of ESG is important characteristics of an investors work, but for them not specifically referred to ESG. The respondent further explains that depending on the company, important factors to consider varies, it could be environment and pollution in one company, while in a management company the focus might be on governance issues. However, the respondent points out that all the factors they are working with are within the ESG concept. It is also important to have in mind the phase in which the company is in, if it is in its initial phase one cannot demand that everything should be perfect, however, there should be a plan on how to implement these questions.

When asking if they are working with ESG during the investment period, the respondent explains it is equivalent since it is questions that are considered and important throughout the whole investment period. When in the board there is a responsibility to make sure that the investee company has routines and directives to follow, and then integrate question concerning this to further decide upon. Where it is important to adjust to each company, if pollution or energy questions are important factors it is then up to the board to make sure the company follow certain directives and create awareness. When asking whether there are any follow ups in regard to ESG issues, respondent B further explains that ESG is not a recognized concept in Industrifonden to say it is ESG issues that is being followed. Rather make sure the companies follow certain paths and directives which include these ESG issues.

Indirect investments

When it comes to indirect investment and whether Industrifonden works with ESG issues prior to an investment, the respondent says that it is equivalent there as well. Even if respondent B is only working with direct investments, some of the colleagues are in the board of their regional partly-owned venture capital firms. The respondent explains that they are working in a similar way as Industrifonden, finding interesting companies to invest in. Respondent B further explains that in those investments, ESG issues are important to consider in the same way as for Industrifonden and the direct investments. When it comes to ESG implementation during the investment period, the respondent states that it is similar to their direct investments, hence they are working with it but it is difficult to state exactly how. Since the investments are rather different it is something that has to be integrated in the investment climate and adjusted for each company. Hence, respondent B does believe sustainability development is something that will be further developed and integrated in a near future.

5.3 Innovationsbron AB

Innovationsbron is owned by the Swedish state together with Industrifonden and was established in 2005. The focus is primarily on Swedish projects and companies operating in the early stages, where effort are being put on helping companies overcome initial problems and risks before private equity companies gets involved. Innovationsbron provide seed funding together with expertise on helping ideas develop and as companies are ready for the next step of commercialization Innovationsbron help engage potential investors. Innovationsbron provide development grant, equity capital and soft loan, and manage a total of SEK 457 millions. Equity capital is primarily direct investments but indirect investments through other financing institutions also exist. (Innovationsbron, 2010)

5.3.1 Sustainability according to Innovationsbron AB website

Guidelines from the Swedish government state that the overall goal for Innovationsbron is to strengthen the Swedish competitiveness and create opportunities from more jobs in new and growing companies. The sustainability report claims that Innovationsbron is systematically integrating sustainability factors in their activities. (Innovationsbron -Hållbarhetsredovisning 2009 p.5,12)

The board has delegated to the CEO to establish policies concerning for example gender-equality and environment. Several projects are currently running to integrate sustainability into the Innvationsbron daily activities. During 2009 a new environment policy was adopted with the goal to reduce Innnovationsbron´s effect on the environment. Externally Innovationsbron should support the commercializing of environmental friendly innovations and support research in the area. (Innovationsbron -Annual report 2009 p.10)

When it comes to integrating sustainability into external activities Innovationsbron is currently working with a project called HINT. One of the objectives in this project is to develop strategies for integration of sustainability factors in early stage investments that incubators could work with. (Innovationsbron - Annual report 2009 p.10)

5.3.2 Interview with Respondent C (Investment Manager)

Initial questions
This interview was held in person with respondent C, who is an investment manager at Innovationsbron. Respondent C works with preparing and evaluating new investment cases, and further explains that the respondent also work continuously with firms already invested in. Respondent C explains how Innovationsbron work with mostly direct investments, but also indirect investments through partly-owned seed financing companies. The respondent also explained how indirect investments differ depending on geographic region.

Internal process
When it comes to the internal processes respondent C brings up the same activities as respondent D in the following interview, i.e. the HINT project, Clean-tech Sweden and GRI accounting system. Respondent C explains how Innovationsbron is currently in a process to improve how sustainability factors are handled internally. This partly done in “the Natural Step” education program, which focuses on changing the way an organization act towards sustainability. The respondent also mentions ”reko-kontor” as a way to increase sustainability focus in the workplace. Respondent C points out that Innovationsbron´s internal process is limited to the office environment, travels etc. and chance to create real influence through investments.

Direct investments
When asking the respondent about sustainability in the pre-investment process in direct investment the respondent explains that how the work is being done differs within the organization, it depends on the person and the region. The respondent explains that in the respondent C´s office sustainability factors are consider when choosing investments, but it is not made in a structured way. Respondent C also mentioned ”fokus-verifiering” which is a program for early funding of projects. Even if the respondent admits that this system is not complete in any way, sustainability factors are being considered in the decision. Products that might have a negative impact on society, for example products that might cause addictive behavior, are not supported despite the lucrative aspect. The respondent stresses the

importance of working with these factors in a structured manner. If not, it might be only the obvious flaws that are discovered, for example child labor. The respondent explains that a deeper and more structured analysis is needed to get the whole picture.

The goal of the “the Natural Step” program is to shape the future work on sustainability. The main focus is to develop tools that could be used in the due diligence. Respondent C means that the sustainability focus should also be included in the post-investment process. The respondent says that as owners, Innovationsbron has unique possibility to influence and direct the new firm. Innovationsbron has intention to work actively with sustainability factors within the boards of company invested in. Respondent C also means that Innovationsbron has the possibility to evaluate the financed firm every time they re-invest. The respondent admits that right now it is up to the person in the board and further states that the way this is being done in a structured way will be different in the future.

Indirect investments
Innovationsbron in the Northern region of Sweden can, in addition to the direct investments, invest indirectly in companies through the partly-owned seed financing companies Uminova Invest and Lunova. Innovationsbron does not usually have a seat in the board of the financed firm, therefore the challenge is to get the seeding firm to work in the same direction as Innovationsbron which also include sustainability factors.

Respondent C informs that Innovationsbron has a program for development and financing of business incubators´ operations in Sweden. Hence, the evaluation of incubators today is only based on business development and financial performance and that no sustainability factors are included in this evaluation. Innovationsbron provide parts of needed financing for an incubators´ operations and the incubator in their turn are investing in many firms. Therefore, respondent C means that there is a big opportunity to affect many firms by working with the incubators.

Lastly, the respondent points out that much of the work with sustainability factors in companies and projects invested in by Innovationsbron lays in the future and it takes a lot of hard work to get everything in place. Respondent C further suggests a follow-up study next year.

5.3.3 Interview with Respondent D (Project Manager)

Initial question
One additional interview was held with respondent D, who is a project manager for a project called HINT (Hållbar Affärsutveckling i Innovationssystemet i Västsverige). Which is a project managed by Innovationsbron AB. The respondent explains that Innovationsbron mostly does direct investments, but also indirect investments by working with incubators.

Internal processes
Respondent D explains that Innovationsbron has a reporting system for sustainability based on GRI (Global Reporting Initiative), including social factors such as diversified and labor condition. Where policies have also been developed concerning the workplace. This includes environmental policy for buy-in and gender-equality policies, and how to work with these issues. The respondent specifies that using telephone conferences are one example implemented to reduce travel. Innovationsbron has also adopted the “reko-kontor” system for

the workplace. This is a system created by CSR in western Sweden where several sustainability indicators are used to motivate the employees towards sustainability.

Innovationsbron does not have a person currently responsible for the implementation of ESG issues in the investment process but respondent D points out that the new projects will change that. Respondent D further explains that Innovationsbron has an education program called ”the Natural Step”. Where all employees at Innovationsbron gets one day education regarding how to work with ESG in the workplace, which is also an obligatory step for all employees.

Respondent D informs us that the respondent has been looking at how other investors work with their incubators. The respondent has found examples of existing practices. For instance the respondent points out that an office in Borlänge already had their firms to do a risk analyzes on ESG in order to get an incubator, which is a generally good response from the companies. Another example is Innova in Karlstad where the incubators had to sign a contract stating that they would follow Innovas ESG policy.

Direct investments

Regarding direct investments, respondent D means that it is within the direct investments that the major part of influence could be made. The respondent points out that Innovationsbron as an investor in the early stages has a unique possibility to affect these new companies.

A major project is currently in the developing stage within the seed financing area. The purpose of the project is to develop a framework on how to screen new investments based on ESG criteria. Respondent D further explains that until now, the analysis of new investments is only based on classic financial issues. The idea is that classic questions like market prospects and profitability will be complemented with questions regarding ESG issues. For example if the targeted firm’s management “know” their suppliers, whether they have done any research on where the product could be produced and if they are aware in what matter they affect the environment. Respondent D explains that their SWOT analysis has to be complemented with a section on for example potential environmental threats in the future. Other criteria included in the new framework are guidelines for how the CEO should work in different perspective. Where also the board of the firm should have a check point on their agenda where ESG issues are discussed. Respondent D explains that this framework, developed by HINT has just recently been passed on to the board and responsible CIOs, and will hopefully be tested this summer or autumn. The respondent points out that by implementing these issues in the pre-investment stage, the possibility also opens up to do follow-up work and then control that the ESG commitments are being meet.

Respondent D also points out the complexity of integrating these systems too soon. The respondent means that firms need an introduction to these issues while still at the incubator stage. Respondent D therefore explains that the implementation of these instruments needs to be done together with the incubators. There are currently no contractual obligations when it comes to ESG issues, nor will there be in the new framework. However, respondent D points out that all new firms are being informed about the importance of ESG issues and that if the firms do not consider these issues, they are not a long-term investment alternative.

Respondent D further explains that no ESG related activities are currently made in the post-investment process. Thus, as a first step the new framework will be implemented. When this system is working could any post-investment activities be developed. Respondent D states that there has been a discussion on an integration of ESG issues in the exit policy. For example if the firm is taken over, the new owner should commit to follow ESG work that has already been made.

Indirect investments
As indirect investors, Innovationsbron is working with so called incubators. Incubators works like an intermediate between Innovationsbron and the targeted firm. The incubator should coach the company in its first 2-3 years with helping with networking and business development. Respondent D informs that Innovationsbron are responsible for a project called IBIP, which is a governmental funded education program for incubators in Sweden. The current program is expiring in a year and the idea is to have ESG issues integrated when then the new program starts. The respondent explains that Innovationsbron is also running a business developing education program with over 600 business coaches. The idea is to integrate ESG issues in the way these coaches develop new businesses and act as incubators. Nevertheless, respondent D admits that little is made in practice at the moment. Since the focus is still on trying the early-stage companies to survive, get their first costumers and generate a profit. The ESG issues are not quite there yet.

5.4 The Sixth Swedish National Pension Fund (The Sixth AP-Fund)

The Sixth AP-fund manages public pension funds and has been active on the private equity market since 1996. The fund allocates its investment among growth companies operating in different industries, from early stages to later stages of development. The Sixth AP-fund manages a total of SEK 18.2 billion and invests primarily in small and medium sized companies through both direct investment and indirect investments. The direct investments are made directly to a company and indirect investments are made through investment companies or private equity funds and the investments can be in both listed and unlisted companies. (The Sixth AP-Fund, 2010)

5.4.1 Sustainability according to The Sixth AP-Fund´s website

The Sixth AP fund has a long-term focus by working towards sustainable solutions both economically and environmentally. (The Sixth AP-fund- Values, 2010) The annual report states that the Sixth AP-fund aims to accomplish sustainable businesses by implementing clear values and guidelines to establish stable investments in funds investments and companies. The report further state that sustainable businesses are important in order to create high return, mostly by integrating sustainability factors as a natural part in the investment decision and continuously actively support the targeting companies.

The focus on sustainable development has been intensified during 2009. An investigation has been made in order to evaluate how sustainable activities have been handled historically. The goal is to formulate a framework on how to increase pressure on all financed firms when it comes to ethical and environmental factors. It further states in the report that ethical questions are a part of the investment process and an important factor in the discussion with targeted firms, both pre investing but also during the life of the investment. Sustainable activities in the workplace the Sixth AP fund includes environmental activities such as reducing electricity usage, recycling and switching to more environmentally-friendly travelling alternatives. (Sixth AP-fund -Annual Report 2009 p. 15)

5.4.2 Interview with Respondent E (Investment Manager)

Initial questions

Our last interview was held with respondent E, who is an investment manager at The Sixth AP-fund´s direct investments. Respondent E clarified that the Sixth AP-fund is working with early stage investments and it is then venture capital investments. The respondent explains that in both their direct and indirect investments the investments must be linked to ownership either to stocks, convertibles or options.

Internal process

When asking whether they are working internally with ESG issues, respondent E explains that regarding their office they are trying to be environment-friendly as far as is possible. However, they also have an ethical policy and an environment policy, where respondent E states that they have decided to work with concrete question in relation to environment and sustainability and then implement a policy for that. Respondent E further explains that Sixth AP-fund has an overall formulation to consider social questions and factors in the daily work. When asking whether there has been any ESG training in how to implement ESG in their investment decision, the respondent explains that there has not been a specific ESG training hence, they have had internal training in business analyzes where these questions needs to be considered.

Direct investments

Regarding direct investment and if the Sixth AP-fund are working with ESG prior to an investment decision, respondent E points out that is generally in the direct investment the work with ESG is concentrated. The prior work is primarily due diligence to find risks, regardless what type of risk it could be, legal, economic or other risks. Sustainability questions prior to an investment are focused upon risks, factors harmful to the environment and so on. Respondent E further states that it also depends on the company you are investing in and the approach toward sustainability questions. The respondent states that as an investment manager it is important to develop a skill in identifying companies from a possibility and risk perspective. When asking whether they are following any templates, the respondent explains that there are templates over questions and investments directives where risk and possibilities need to be reported.

During the investment period respondent E explains that they use yearly surveys where they go through their companies in order to know what is going on and to have control. There one can see for example that the company has good environment factors but is not promoting it, then the Sixth AP-fund can step in and help marketing these factors and increase their awareness. It gives an increased focus on sustainability development for the companies. Respondent E points out that it is important to have good arguments when working with environment questions since it can not only be an expense, it has to result in revenues too. Concerning governance is something they are working quite a lot with on a general basis, in the relationship between management, boards and owners. However, the respondent personally believes it is important to keep ones roles apart, as an investment manager is often also part of the board. As an owner you have one role and as part of the board another. Respondent E further explains that they have considered including social related questions in an overall operation method, hence it is difficult. Instead each company has to work with these questions and the board has to decide of it is enough of what is being done. However, environmental questions are easier to integrate and work with. Social questions are being regulated by law, however the question is whether more should be done to it.

Indirect Investments

When it comes to indirect investments and if the Sixth AP-fund is working with ESG issues prior and during the investment period, the respondent points out that in the indirect investment it is up to each fund team to establish their own processes to work after. However, there are certain directives concerning environment and health issues and related “S” questions that needs to be followed. When making an indirect investment a 10 year agreement is usually signed, where it is stated how much capital will be provided, investment branch and types of companies for example. As an investor you also have investment criteria that should be followed and evaluated continuously. In this agreement is it normally stated that operation should be made in regard to ethical and environmental aspects, which is part of the standard form. The evaluation and follow up of the investment funds depends on the fund, usually reports are received on a quarterly basis and specific focus questions on a yearly basis, where for example certain environmental questions can be questioned. Respondent E does believe that the Sixth AP-fund are working with ESG questions, hence one could always work more. Thus, respondent E does not believe ESG issues are something that will be incorporated further, but it is not something that will disappear.

6 Analysis

In this chapter the aim is to connect our theoretical framework with our empirical findings and analyze what have been found. The findings will be analyzed from three perspective, internal process, direct investments and indirect investments. Internal process will be analyzed from an internal perspective of what is being done within the organization regarding ESG, the direct and indirect perspective is focused on ESG integration in direct and indirect investments.

6.1 Internal process

The internal process concerns the activities the investor performs regarding sustainability within the organization. Graaf and Slager (2009 p.2-13) argue that the way investors integrate sustainability issues is foremost based on a fundamental motive. That can either be financially-driven, ethically-based or value-ensuring strategies that motivate an investor. (Graaf & Slager, 2009 p.2-13) Even if the integration of ESG issue is relatively new among investors, as both our literature search has shown and further also our conducted interviews confirmed, the different motives for integrating sustainability factors, the underlying motive is an important factor. For a venture capital investor a fundamental factor is the financial driven motive, since the purpose with a venture capital investment is to create economic growth, which will then generate a return on the investment. One of our interviewees also confirmed this with the argument that there must be financial incentives for integrating ESG factors since it cannot only be an expense, it also needs to generate a profit. However, our findings also show that value ensuring and ethical perspective are also growing motives. Even if our interviews have shown that state-owned investors are at the moment on different levels regarding the familiarity of ESG and sustainability implementation, hence the majority believe it is a growing concept to consider and further integrate.

The value and ethical motives are more unclear, some of our interviewees explains that they do have ethical policies, but exactly what is done in practice is more diffused. Nevertheless, one of our interviewed organizations is more developed in the ESG integration on an internal level, where training is given how to improve sustainability awareness internally. Some of the interviewees explained that they have had internal training concerning social questions as gender equality issues or training in business analyzes where ESG questions are considered. One interviewee also stated that they are not working with the concept ESG, hence they are working with what each letter stands for which creates informal directives and becomes part of the investment climate.

In the Principle of Responsible Investments (UNEP FI & UN Global Compact, 2009 p.6) it is stated that direct investors should have training and develop more expertise on how to manage ESG. UNEP FI and UN Global Compact (2009 p.6) also state that development and communication of policies toward ESG help ensure that involved parties is aware of the policies. This would make it clearer of how to integrate ESG policies and more aware of what is to be done in practice. From our interviews in general it seems to be a lot up to each department and the responsibility of the investor to integrate sustainability factors.

The work with beliefs and values within an organization is fundamental for organization in order to increase the awareness of ESG. Jurlave and Lewis (2008; cited in Graaf & Slager, 2009 p.13) argue that these factors are crucial for integrating social responsible investments. With more specific directives and investment guidelines within ESG issues our state-owned investors would be able to work more united toward sustainable factors and then also integration of ESG. However, a majority of our interviewees did state that this process of working more toward sustainability is something that has grown and been more focused upon during the last year. Thus, it takes time to integrate new directives and guidelines in large organization.

Delegate roles and responsibilities are according to Graaf and Slager (2009 p.2-13) also essential factors in order to make an organization work in the same direction. One interviewee stated the ESG work is in the investment climate, however with more specific roles and responsibilities this could be more focused upon. Another interviewee explained they are in the process of improving how sustainability factors are integrated internally within the organization. Furthermore, our interviewees also explained that they are working with sustainability on an office level regarding reduction of travel and environmental friendly office products, which can be said to be one step toward further ESG development and then transferred into their investments.

At the moment the ESG concept on an internal level is much diffused and different investor incorporates in his or her way. However, this was the purpose since it is no specific guidelines or directives. However, it is being developed, thus it is up to the investor to be willing to integrate and work with these sustainable factors. State-owned investors as role models can then take this further to institutional and private investors.

6.2 Direct Investments

Generally, state-owned investors are acting as venture capitalists in their direct investments. The possibility to actively choose investment targets without any intermediaries and the possibility to have a seat in a portfolio companies boards. This creates a unique opportunity to influence and direct the financed firm towards sustainability.

6.2.1 Pre investment

The pre-investment process normally includes several steps that could all be targets for ESG implementation including screening and due diligence.

Due Diligence
Existing practices suggests that the due diligence analysis should have a section exclusively on ESG issues. (UNEP FI & UN Global Compact, 2009 p.6) From documents and websites the impression is that sustainability factors are in one way or another included in the due diligence. For example on one website it is stated that investment management consider criteria based on sustainability factors. However, the result from the interview shows that a system to do so in practice is far from implemented in a structured way. Today it is up to each investment manager how this work is being done in practice. Two of our interviewees mean that ESG consideration could be equalized with a risk factor and is therefore included in the general due diligence. Another interviewee explains further that for example environmental risk is included in the general risk analysis where all risks and possibilities with the business are being considered.

If ESG issues are not included in the due diligence, there might be a problem with adverse selection and moral hazard when it comes to ESG work. If the due diligence process is not done in a thorough manner, it is only the more general risks that gets discovered. This is something that one of our interviewees also states. Adverse selection means that “wrong” projects are being chosen due to information asymmetry. According to Baeyens and Manigart (2003 p.50) the due diligence and continues data collection are tools to used to reduce these risks. If sustainability factors are not implemented in the due diligence analysis, the investment that are under investigation might appear as “good” and give a misleading impression.

If the implementation is up to each investment manager, the quality of *how* and *how well* it is implemented it is up to each the manager´s interest. Insights invest draw a similar conclusion from their own study. One of the main experiences was that people are the key and they suggested that investors should meet and discuss these issues. (Insight Invest Management, 2009 p.1-2)

Screening and deal flow

ESG awareness should also be included in activities that are made prior to the due diligence analysis. This includes the way investors search for investment alternatives and in the screening and deal flow process. Tyebjee and Bruno (1984) mean that the screening process is a crucial process, since it determines whether to continue with an investment or not.

The results from the interviews show that the ESG implementation in this phase, like within the due diligence analysis, does not follow a structured procedure. One problem that one of the interviewees points out is the complexity of how ESG activities could be measured and evaluated. For example how different investment alternatives could be “ranked” based on ESG criteria. Because all companies are different, and the way ESG issues are implemented differs in many ways. This problem is also discussed by Blanc et al. (2009 p.14-15), and due to the diversity of the portfolios, Blanc et al. (2009) mean that the targeted firms operate in different markets which make the ESG implementation difficult and time-wasting.

Several areas within existing practices stress the importance of taking an active part in the investing environment when it comes to promoting ESG consideration to others. This could be considered an internal process but it is also a way to meet new alternative investments. Guidelines created by UNEP FI and UN Global Compact (2009 p.6) include developing and communicating ESG policies to surrounding partners. Wood and Hoff (2007 p.44) suggest that pipelines could be created to increase the availability for good investments. The empirical findings show some activities performed by the state-owned investor and focus on this area. Especially, one interviewee said that it is important with networking, informing at events, but also finding co-investors with the same ambitions.

Another pre-investment procedure to increase effectiveness of ESG implementation could be to establish contracts with the management of the targeted firm. Baeyens and Manigart (2003 p.50) suggests that establishing contracts, combined with goal incentives, could be used to reduce moral hazard. In this way the investor could assure that the portfolio company maintains their ESG obligations and not acting after their own interest.

None of the interviewees confirmed that any such contracts were established. Instead two of interviewees explained how they did not integrate ESG obligations in their contracts with the firms and probably will not in the future either. However, a clearer picture of why contracts were not used could not be assessed.

As already been said, implementation of ESG issues in the screening process today is not done in a structured and thorough way. However, there are currently several projects running to develop strategies and frameworks on how this could be done. Especially one interviewee informed us how the screening process will focus a lot more on ESG issues in the future. Basic questions that concerns financial aspects will be complemented with a set of ESG related questions.

6.2.2 Post Investment

ESG consideration should also be integrated in the post-investment process. As direct investments mean having ownership and usually a seat in the board, a possibility to intervene with the management and direct the firm from the inside. (Tyebjee & Bruno, 1984; Gompers & Lerner, 1998) Wood and Hoff (2007) also stress the importance of active ownership. They further suggest that venture capitalists should use their ability to direct the company towards sustainability.

UNEP FI and UN Global Compact (2009 p.8) suggest that the most important post-investment process activities are monitoring and supporting. This includes request information on how the ESG work proceeds and establish and maintain dialogues. As already discussed, continuously data collection is another important tool in order to avoid problems with moral hazard and adverse selection (Baeyens and Manigart, 2003 p.50). Wood and Hoff (2007) argue that establishing systems to acquire necessary information is more important when it comes to new firm as the pressure to report is by nature less heavy for these firms. According to Akerlof (1970), active monitoring is very important in order to reduce information asymmetry. An investment that initially seemed like a good investment does not necessary have to continue staying good. UNEP FI and UN Global Compact (2009 p.8) suggests that it should be included in the post- process to perform follow-up evaluation if the firm live up to the criteria that were set up when the investment was made.

Two empirical documents clearly state that ESG related activities should be included in the post-investment work. Moreover, one interviewee points out in the interview the importance of these activities. The empirical findings further show that how reporting and evaluation work are performed today is very much up to the board members. But it is unclear how this work is being done in practice. None of the interviewees could in the interview give a straight answer in this matter which again clearly shows the absence of structured approaches in this matter. The development of systems on how to implement ESG issues seems to be focused on the pre- investment process rather than post-investment activities for obvious reasons. Post-investment activities are something that will be developed at a later stage. One respondent admits that ESG questions are being outweighed by financial aspects such as growth potential.

From the empirical findings, several problems were identified concerning ESG issues in direct investments. One interviewee means that there is a danger in forcing these issues upon firms on a too early stage, for example within direct investments in companies coming direct from the incubator environment. The interviewee suggests that new firms need to be prepared for future sustainability issues when working with the incubators on an early stage.

There seems to be a big difference between the areas of ESG and to what extent they are being considered. Two of our intreviewee´s mean that the area of *Governance* is being included in the general due diligence analysis. It lays within the interest as owners to know that the targeted firm is being governed in the right way. Other factors such as social factors are up to the board of the firm, or regulated by law. To satisfy environment issues, it has in some cases been given a specific investment strategy, for example Clean-tech departments and “focus-verifiering”. In other cases environmental issues are considered a relatively easy factor to integrate and work with. Focusing on products with ESG beneficial features is what Wood and Hoff (2007, p.48) refers to as product-focused investments. According to Blanc et al. (2009 p.9), these product-focused or thematic ESG are best suitable for environmental issues and can very well increase the overall awareness of ESG issues. The empirical findings cannot in a sufficient way tell us to what extent other investment strategies that Blanc et al. (2009) and Wood and Hoff (2007) discusses such as community ventures or process-focused investment are being applied.

6.3 Indirect Investments

In indirect investments the state-owned investor role is more limited compared to a direct investment previously analyzed. The indirect investments are often done through a venture capital firm/fund where the state-owned investor then takes the role as a limited partner (SVCA, 2008 p.7).

The general problem in these situations is the principal-agent conflict. Wright and Robbie (1998 p.533) among others discuss this complex problem as the venture capital firm has to work as agent for the investors and as principal towards the portfolio company. They further stress the importance of reducing information asymmetry to avoid moral hazard and adverse selection. We have already discussed how these problems could be avoided by monitoring and analyzing the target and by using contracts and incentives (Baeyens & Manigart, 2003 p.50).

According to UNEP FI and UN Global Compact (2009 p.7) ESG implementation in indirect investments are centered on the relationship with the general partner. In the pre-investment work activities on ESG issues includes informing the general partner of the ESG policy and how the general partner can support this approach. UNEP FI and UN Global Compact (2009 p.7) also stresses the importance of evaluating the general partner and make sure that they have the required knowledge and systems to implement ESG consideration. Post-investment activities should include monitor and establish reporting systems with the general partner (UNEP FI & UN Global Compact, 2009 p.8).

From our empirical findings the indirect investments can also be through so called incubators as Innovationsbron refers to. Thus, the state-owned investors in this study that engage in limited partnership are only responsible for the capital that they have invested in the fund, and thereof have a limited responsibility (Berwin, 2006 p.11). One interviewee pointed out that it is up to each fund to established processes to work with. However, general investments criteria´s and directives concerning environmental and health issues should be followed and continuously evaluated. Another interview state that indirect investment does not different that much from direct investment as ESG issues are included in the investment climate in the same way.

The empirical findings further show that evaluations of venture capital firms or incubators are mainly evaluated after financial performance. There are no sustainability factors in the evaluation. When the limited investors are mainly focused upon the firm/fund financial performance it is essence to live up the expectations in order to receive further funding. If there is no ESG directives to work within the investments it is less likely the venture capital firm/fund are to implement sustainability factors. However, if directives from limited partners promote and also include ESG consideration in their evaluation it is more likely the venture capital firms are encouraged to direct their portfolio companies toward implement ESG factors in their operations both pre and post the investment decision.

Another interviewee explains it is of importance to have a close relationship with the incubators since they are investing in several companies, which is also the case for venture capital funds. There is great opportunity to influence and affect several companies by working with incubators since they are investing in a high amount of companies. It is also possible to work with sustainability factors in indirect investments through the board of the firm or fund. Since in indirect investment the investor does not have a seat in the operating company but in the intermediate firm, there influences can be pushed to make the firm/fund work in the same direction. Which can then be further influenced toward their portfolio companies. However, this is a process that takes time and hard work according to an interviewee. Nevertheless, this is an indication that the integration of sustainability factors are in progress and should be followed up at a later stage.

However, as an indirect investor there is great opportunity to- close relationship, since working with several portfolio companies. Thus, it is about common values and beliefs among all limited partners and board members. One limited partner is not strong enough to be corrected after its directive. There must be common directives implemented by the board toward the firm/ fund.

7 Conclusion

Here, the conclusions from the analysis will be presented. An answer to the research question will be given of what is done in the implementation of ESG issues among state-owned investor, in their venture capital investments. We will also present what problems that have been identified and recommendations on how investors could deal with these problems. Lastly, contributions to the research are and recommendations for further research will be discussed.

7.1 Answering the research question

How do state-owned investors implement ESG issues in venture capital investments?

From reports and website we got a somehow clear picture of what is being said on a theoretical level. Several statements stress the importance of working with sustainability factors and integrating these issues into to everyday activities. Reports and websites present examples of how work towards sustainability is centered on integrating ESG consideration in the workplace. Less is being said on how ESG issues are implemented into investment activities in practice.

Interviews with investment managers and people working within these organization shows that it is generally up to each investor how ESG issues are being considered in the due diligence and screening process within direct investments. This means that there is no consequent approach to ESG in these crucial investment steps. When it comes to post-investment activities the responsibility to work with ESG issues lays upon the board of each firm.

The interviews further confirmed that all state-owned investors in the study worked with ESG in the workplace in some way. For example work-shops and ESG education that creates awareness and could lead to a better understanding and help implement ESG into investments.

The study shows that how state-owned investors view on ESG and sustainability factors differ. All investors claims that ESG factors are being consider in one way or another, but how these factors are implemented in the investment process is not clear.

The study shows that little is being done to implement ESG issues within indirect investments. It is by nature harder to implement ESG due to the limited ability to actively direct the firms. The study shows that ESG issues are not included in the valuation of general partner or as criteria for investing in a fund or other partnerships. However, the targeted state-owned investors in this study focused mainly on direct investments which mean the findings in this type of investments are limited.

The study further shows that there seems to be an increasing awareness of these issues and that more is to come in this area in the future. Several projects are currently running created to develop strategies that could help investors to implement ESG.

A final conclusion is therefore, that when it comes to how state-owned investors are working with venture capital investments, *ESG issues are integrated in how investors think, but it is not implemented in how investors act*.

7.2 Answering the sub-purpose

What problems can be identified and how can state-owned investors work to deal with these problems?

The next step - Moving from integration to implementation

Today, the main focus for state-owned investors when it comes to sustainability factors are centered on internal activities. It is on some level integrated into the activities that concerns the workplace and the organization as a whole. However, to move from integration to implementation is the crucial part of forming sustainable businesses. During our research we have identified several important problems that might obstruct an effective implementation of ESG issues. Our findings in the research area force us to revise the framework presented in part 3.4 *(The Theoretical Summary).*

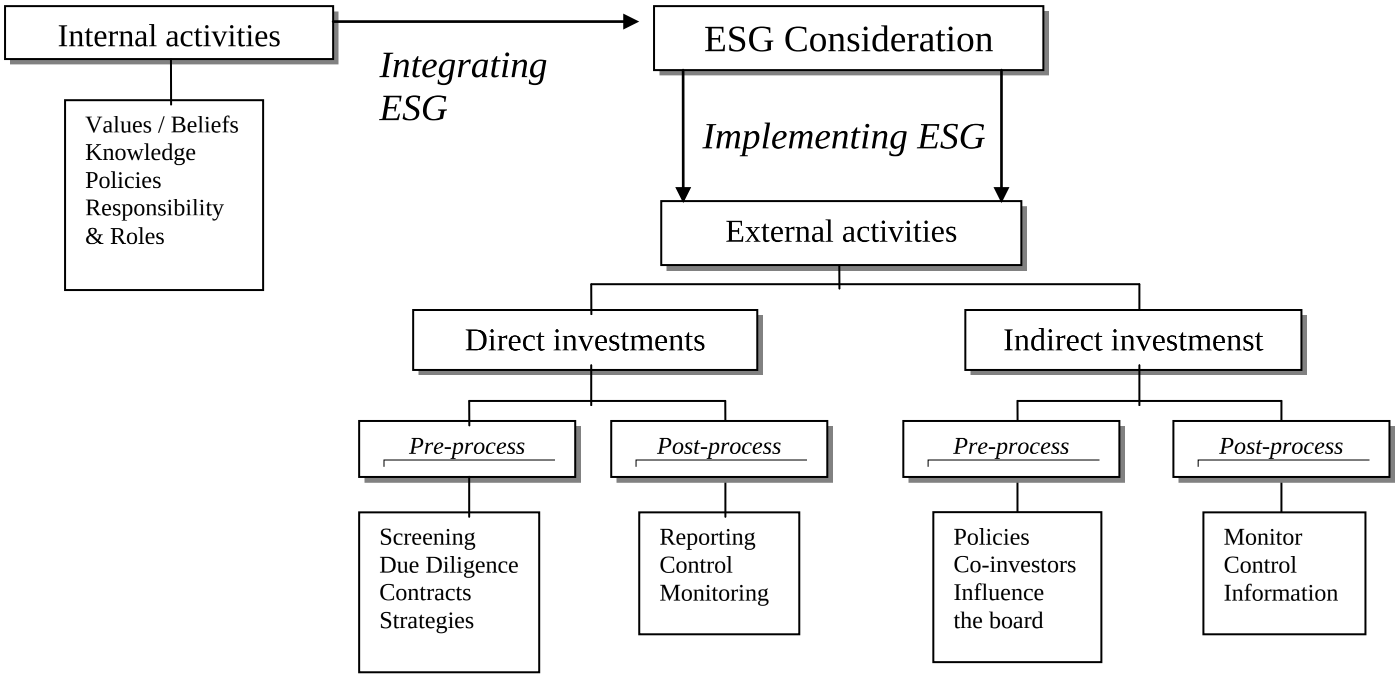

Figure 5. Framework for implementing ESG issues (revised; own creation)

In this modified framework, internal activities refer to activities that increase awareness of ESG issues and help *integrating* ESG consideration among how investors think. Still, to implement ESG into venture capital investments require a focus on external activities. In this final section we will discuss the most important problems with *implementing* ESG that was identified during this research and present a set of recommendations on how investors could deal with these problems.

- The first problem refers to how ESG related activities can be measured and how young firms can be ranked based on ESG performance. Research in this area is clearly needed. Before a measurement system could be taken into practice, young firms should be consulted. We suggest that a first step could be using only questioners to make sure that ESG factors are being considered at all.

- Because portfolio companies operate in many different businesses, it is hard to construct one single template to use in the screening process and due diligence process based on a single set of ESG criteria. We suggest that investors could use a set of templates in the screening and due diligence process specific for each sector that includes the type of ESG criteria that is relevant for this sector. For example one template could be used to evaluate industrial firms which are more focused on environmental issues and another template for IT firms etc.

- A second problem deals with at what stage it is reasonable to increase pressure for ESG consideration on young firms. We suggest that ESG should be introduced at a very early stage. A discussion should start even if the real implementation of ESG activities could wait. This could be done to prepare the firm for upcoming ESG related work. It should not inhibit growth of young firms but create awareness.

- When it comes to indirect investments, the implementation of ESG issues is harder due to limited possibility to actively direct funds. The focus should be working with co-investors with the same value and beliefs and influence the board of the fund.

7.3 Contribution to the research area & suggestions for further research

The findings in this study should be considered a first step in knowing how state-owned investors are working with ESG issues in venture capital investments. It would be interesting to make a more comprehensive study, where investors are interviewed at an initial stage and then complimented with follow up interviews. Here, it would then be of interest to see how it is being develop and if investment decisions are being modified toward integrating ESG issues and sustainable factors. Considering that our findings showed that ESG implementation among investors are a relatively new concept and at this stage also in progress for several of our organizations.

A broader study among state-owned investors should also be conducted, by interviewing the larger organizations regional offices. A majority of our studied state-owned investors also has regional offices represented at various locations in Sweden. This, since the implementation and related ESG work may differ between offices. In fact, our findings indicated that ESG consideration and work with sustainable factors is much up to each fund manager interest. Therefore, each regional office may have implemented ESG factors from their own interest. Then study what underlying factors exits that make the regional offices ESG work differ, if that is the case.

Further studies should focus on giving a deeper understanding of the problems of implementing ESG in investment decisions, specifically in the early stages as screening and due diligence. Study how one can develop and construct templates that could be included when making investment decision. Hence, different templates could be constructed for different industries and company phases regarding ESG guidelines. Parallel to this, a study of investee companies and what types of guidelines and directives are reasonable to include in a potential template.

Nevertheless, the focus in this study has been on state-owned investors, however it would also be of interest to study different active investors. Then, make a comparison, and see if there are any differences concerning implementation of ESG issues or generally ESG awareness. It would also be of interest to compliment interviews with questionnaire with more specific question regarding practical ESG work and investment decisions. In that way the questionnaire will provide one perspective of ESG work and interviews will be more opinions and give a broader perspective to the concept and attitudes. The interviews could be shorter interviews with instead several active venture capital investors. Hence, there are various perspectives on how to continue study ESG implementation in investments.

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Appendix 1. Intervjumall (Swedish)

Med ESG (Environment, Social, Governance) faktorer menar vi *hållbarhetsfrågor i relation till miljö, sociala frågor och bolagsstyrning.*

Inledande frågor

Vad är din arbetsuppgift?

Arbetar ni med investeringar i tillväxtbolag?
Arbetar ni med både direkta och indirekta investeringar?

Övergripande interna processer

Arbetar ni internt inom [*företagets namn*] med ESG faktorer, och i så fall hur ser det arbetet ut? Exempelvis, för att öka medvetandet om ESG faktorer, policys och riktlinjer, o.s.v.

Direkta investeringar

Arbetar ni med ESG faktorer *före* investeringsbeslutet, och i så fall hur ser det arbetet ut? Exempelvis, vid val av investering, analys av investering, kontrakt, o.s.v.

Arbetar ni med ESG faktorer *under* investeringsperioden, och i så fall hur ser det arbetet ut? Exempelvis, kontroll, uppföljning, o.s.v.

Indirekta investeringar

Arbetar ni med ESG faktorer *före* investeringsbeslutet, och i så fall hur ser det arbetet ut? Exempelvis, vid val av fond/General Partner, analys av fond/General Partner, kontrakt, o.s.v.

Arbetar ni med ESG faktorer *under* investeringsperioden, och i så fall hur ser det arbetet ut? Exempelvis, kontroll, uppföljning, o.s.v.

Appendix 2. Interview guide (English)

Initial questions

What is your work assignment?

Are you working with early stage investments?
Are you working with both direct and indirect investments?

Internal process

Are you working internally within [company name] with ESG issues, and if so how does that work look like? For example, increase ESG awareness, policies and directives etc.

Direct Investments

Are you working with ESG issues *prior* to an investment decision, and if so how does that work look like? For example, choice of investment, analyze of investment, agreements etc.

Are you working with ESG issues *during* an investment period, and if so how does that work look like? Example, control, follow-up etc.

Indirect Investments

Are you working with ESG issues *prior* to an investment decision, and if so how does that work look like? For example, choice of fund/general partner, analyze of fund, agreements ect.

Are you working with ESG issues *during* the investment period, and if so how does that work look like? For example, control, follow-up etc.

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