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The potential of ESG investment criteria in Early-Stage Venture Capital funds in Europe

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Abstract

This paper studies the potential of ESG investment criteria as financial markets are no longer primarily driven by financial returns. Hence, SRI and ESG are becoming an integral part in the investment decision. VC firms have the opportunity to finance global market leaders who will drive the sustainable transformation. Considering the limited number of scientific publications in this field, this paper aims to demonstrate the status quo of ESG investment and portfolio management in VC funds. This paper finds evidence that VC firms are increasingly recognizing the significance of ESG integration and are shifting to responsible and impact driven investments.

Keywords: *Sustainable Finance; Venture Capital; ESG; SRI; Impact Investing*

1 Introduction

In the last decades it became alarmingly evident that the world's economic development led to social and environmental misappropriation. Especially as current financial and governmental regulations in place allow businesses to operate in an unstainable way (Ehrenfeld 2008). In order to tackle the warning global issues, companies have to change fundamentally and a wide range of stakeholder concerns need to be included (Bocken 2015). The financial system and entrepreneurship are playing an integral role in this transition to a more sustainable world. The financial system, due to its role in the mobilization of capital to more resource efficient and sustainable businesses (European Commission 2020). Innovation and entrepreneurship, as a key to success in overcoming the status quo and to replace today's pareto optimum (Schumpeter 2013). The intersection builds Venture Capital (VC) as an irreplaceable financial intermediary that finances entrepreneurial solutions and the new generation of highly innovative firms (Monika and Sharma 2015). Interest in sustainable business models is flourishing and a rising number of VC funds are communicating their sustainable investment approach (Bocken 2015). Despite the fact that sustainable responsible investing (SRI) and environmental, social and governance (ESG) investing appears to be accelerating and becoming mainstream, there is insufficient data and literature on how VC funds are integrating ESG investment criteria into their investment process. This master thesis connects literature of sustainable finance (SF) and VC to evaluate its role in the transition towards a sustainable economy. Furthermore, data from expert interviews of leading Early-Stage VC funds are collected, to close the research gap in this field and to demonstrate the status quo of ESG investment and portfolio management. Opportunities and risks fund managers are assessing, and a future outlook is provided.

1.1 Problem Statement and Research Question

SRI and ESG have become an integral part of the investment management industry, as financial investments are no longer primarily driven by financial returns. Most fund managers recognize the potential of this investment class, strongly indicated by the rise of sustainable assets. According to the Global Sustainable Investment Alliance (GSIA) (2018), sustainable investing assets stood at $30.7 trillion, representing a growth of 34 percent in two years. Research shows evidence of a positive correlation between the inclusion of ESG factors in investment decision making and financial performance (Friede, Busch, and Bassen 2015). The Private Equity (PE) and VC asset class has the highest returns in the market and outperformed other asset classes since many years (PitchBook Data 2020). However, only hold 3 percent of global sustainable assets (GSIA 2018). VC has shown to be an integral part in spurring innovation, and it will play a fundamental role in meeting the challenges that come along with the transition to a sustainable world. The emerging trend of ESG criteria integration into the investment process and portfolio management will become increasingly important in order to finance visionary entrepreneurs focusing on having positive impact on societies most pressing challenges. Until now, many studies focused on the integration of ESG in PE (Zaccone and Pedrini 2020), how to mobilize early stage investment in sustainable business models (Polzin, Sanders, and Stavlöt 2018) or more specifically about impact investing (Barber, Morse, and Yasuda 2019). This research aims to fill this gap by combining literature on SF and VC together with conducting expert interviews.

Given this premise the following descriptive research questions are formulated: **Main Research Question (R1):** *What is the significance of ESG factor integration in Early-Stage Venture Capital funds in Europe?* In the course of answering this question, ESG investment criteria are described in further detail and the individual definitions are compared. For this purpose, the following **sub-research question (SR1)** is implemented: *How profound is the understanding of SRI and ESG in Early-Stage Venture Capital funds in Europe?* After ensuring that a fundamental understanding of this investment method is prevalent, the following **sub-research question (SR2)** is stated: *To what extent do Early-Stage Venture Capital funds in*

Europe incorporate ESG criteria into their investment process and portfolio management? In reference to these, the existing SRI and ESG investment strategies are listed and explained.

A further focus is placed on the importance of ESG integration to finance Early-Stage start-ups with a positive impact on the environment, society or governance in Europe, thus the following **sub-research question (SR3)** is formulated: *How does ESG factor integration matter to European Early-Stage Venture Capital fund managers in order to finance start-ups who have a positive impact?* In order to gain a better understanding of the status quo of the industry and to provide a future outlook, expert interviews will allow to assess the opportunities and risks fund managers perceive in the course of implementation. Furthermore, the motivation behind the implementation of ESG investment criteria is analysed and the final **sub-research question (SR4)** is formulated: *Why are Early-Stage Venture Capital funds implementing ESG investment criteria and what risks and opportunities are arising?*

By answering the research questions, the master thesis may extend the current existing literature of SF and develop an understanding of the challenge's VC funds are facing when integrating ESG investment criteria.

1.2 Structure and Research Design

The following chapter elaborates the methodology and research design implemented to answer the previously formulated research questions. This master thesis is structured into three major areas, the theoretical framework, the qualitative research, discussion of the research questions and limitations. Starting with definitions of SF and important trends, an understanding of the essential terms is ensured. Afterwards, different investment strategies in the SF industry are presented, as they are substantial for answering the research questions. In chapter 3, the importance of VC and the current state of SRI and ESG in the industry is evaluated and connected with the previously discussed SF industry to generate a universal understanding of the expert interviews conducted afterwards. The ten interviewed experts are further described in chapter 4.1.1 and listed in Exhibit 11. The interviewees are from leading Early-Stage VC funds in Europe with more than € 5.1 billion assets under managements (AuM). The opinions of the interviewed experts are summarized, and the results presented in 4.2. Subsequently, the research questions are answered, and limitations are described. Finally, the first implications for research are discussed and the research outcome is concluded.

2 Sustainable Finance

Financial markets have an important role in persuading companies on sustainability and are spurred by the consumer shifts to more ethical and sustainable acting companies. Academics criticized the crash was a result of poorly applied theories (Zingales 2015) and systematic failure (Colander et al. 2009). The financial crisis in 2008 induced critical reconsiderations of the financial system (Carè, Trotta, and Rizzello 2018) and emerging consensus of need of reform (Sandberg 2018). As such, financial investments are no longer primarily driven by financial returns, as SRI and ESG have become an integral part of the investment management industry (EFAMA 2018). Financial market participants have a better understanding of the value proposition of incorporating ESG factors in their asset allocation and continue to recognize the potential of the SRI investment class. It has become a prerequisite for SRI investment professionals to understand the ESG profile behind an asset. Particularly because resource scarcity, changing governance such as supply chain standards or labour management concerns have shown to influence financial performance (Laermann 2016). Sustainable investing assets stood at $30.7 trillion in the five major markets Europe, US, Japan, Canada, Australia/New Zealand at the beginning of 2018, representing a growth of 34 percent in two years. Hence, SRI represents more than 50 percent of totally professionally managed assets (GSIA 2018). Europe represents the biggest region for sustainable investors, representing about $14 trillion assets devoted to these strategies (Bloomberg 2019). This growth reflects the expanding awareness of sustainable investing. The following chapter ought to provide an overview and definition of the terminology SF.

2.1 Definitions of Sustainable Finance

SF is the interaction of ESG challenges society is facing and assists in the decision making of setting sustainability goals (Schoenmaker and Schramade 2019). Sherwood and Pollard (2018) describe SF as a research and investment strategy framework that evaluates ESG factors and non-financial dimensions of a security's valuation, performance and risk profile. To provide an overview Exhibit 1 compares the definitions of the most recognised international institutions that frequently define SF as investment approach which integrates environmental, social or governmental factors in the research, analysis and selection process of an asset.

2.1.1 Definition by EUROSIF – European Union

SF plays a material role in supporting the delivery on the objectives of the European Green Deal to make the European Union's economy more sustainable (European Commission 2020). The European Union (EU) defines SF as taking ESG considerations into account when making investment decisions. The EU founded the European Sustainable Investment Forum (EUROSIF) whose mission is to promote sustainability in the European financial markets and has the goal to be a leading Pan-European SRI membership organisation. EUROSIF defines SRI as a *"long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio"* (EUROSIF 2020). The fundamental evaluation and in depth analysis of ESG factors is needed to capture long-term returns and benefits all parts of society by influencing the behaviour of organizations (EUROSIF 2020). Furthermore, the EU Taxonomy Regulation for sustainable activities got published in June 2020 and accelerates the action plan on financing sustainable growth (European Commission 2020).

2.1.2 Definition by UNEP and PRI Global

SF plays a key role in the mobilization of capital to assure a transition to a more resource efficient and sustainable economy supported by a financial system that fosters sustainable growth. Initiatives like the United Nations (UN) 2030 agenda, Sustainable Development Goals (SDGs) and the Paris Climate Agreement are important for the commitment to reducing carbon emissions (European Commission 2020). The UN formulized 17 SDGs listed in Exhibit 2, each with indicated targets and indicators. The United Nations Environmental Program (UNEP) defines SF as *"financial services that are aligned with the Sustainable Development Goals, including the implementation of the Paris Agreement on Climate Change*" (UN Environment Programme 2020). In 2006, a group of the largest institutional investors launched the Principles for Responsible Investment (PRI) in cooperation with the UN. The PRI define responsible investment as a strategy to incorporate ESG factors in investment decisions. The PRI emphasize that *„an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole"* (PRI 2020). The six PRI are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice and are described in more detail in Exhibit 3.

2.2 Sustainable Finance investment methods

SF is an umbrella term that encompasses various investment methods. SF represents the investment choice between sustainable and responsible investment criteria and a selection method applied additionally to fundamental financial analysis (Ivanisevic Hernaus 2019). Institutions such as EUROSIF as well as GSIA and scholars are using a broad range of SF strategies and classifications (Renneboog, Ter Horst, and Zhang 2008). In general, three SRI strategies can be recognised: (1) Sustainable Investing, (2) Screening Investing and (3) Impact Investing, each of them including several subcategories. Hence the differentiation between

ESG, SRI and impact investing is of utmost importance, delimitation of the terms and their application is provided in Exhibit 4. The following definitions are derived from GSIA (2018) and closely follow Ivanisevic Hernaus (2019):

(1) Sustainable Investing is the inclusion of additional data into existing investment approaches and frameworks. No ruling in or out of investments in any sector or asset is required. **(a) Active Ownership (Corporate Engagement and shareholder action):** Use of shareholder power to influence corporate behaviour, through direct corporate engagement (i.e., communicating with senior management and/or boards of companies), filing or co-filing shareholder proposals, and proxy voting that is guided by comprehensive ESG guidelines; **(b) ESG integration:** Systematic and explicit inclusion by investment managers of environmental, social and governance factors into financial analysis.

(2) Screening Investing is the active inclusion or exclusion of certain sectors, countries, securities from an investment universe based on specific ESG related criteria. **(a) Negative Screening:** Exclusion from specific investments or classes of investment such as sectors, companies and practices based on specific ESG criteria; **(b) Positive Screening:** Inclusion from specific investments or classes of investment such as sectors, companies and practices based on specific ESG criteria; **(c) Best-in Class:** Selection of weighting based on ESG criteria of the leading or best-performing investments within a universe, category or class; **(d) Norm-Based Screening:** screening of investments against minimum standards of business practice based on international norms, such as those issued by the OECD, ILO, UN and UNICEF.

(3) Impact Investing – (a) General: Investments made into companies and funds with the intention to generate both financial return and positive, measurable social and environmental impact (GIIN 2020); **(b) Themed Investing:** Selection of assets contributing to sustainability challenges such as climate change; **(c) Impact-first:** Environmental or social issues creating investment opportunities with financial trade-offs (PRI 2013). It is essential that these investment strategies overlap yet are not semantically synonymous. In fact, in many cases a precise distinction may be difficult, but they all share the inclusion of non-financial factors. All market participants along the investment process, whether owner, advisor, manager or investment researcher, are responsible in correctly addressing these factors. Each phase along the investment process is a potential point of breakthrough or blockade – depending on awareness, incentives, requirements and opportunities offered (Blowfield and Murray 2019). In order to segment interviewed VC firms across the sustainable investment spectrum Exhibit 5 and Exhibit 6 are providing an overview of the sustainable investment spectrum in order to segment the interviewed VC firms.

Negative Screening continuous to be the largest sustainable investment strategy globally, with a combined $19.8 trillion AuM, followed by *ESG integration*, which has grown by 69 percent over the past two years to $17.5 trillion assets. The third most used strategy is represented by *Active Ownership (Corporate Engagement and shareholder action)* amounting $9 trillion assets. Although total assets in the strategies *positive screening*, themed investment and impact investment are much lower, all have shown impressive growth over the last two years (GSIA 2018).

2.2.1 ESG factor integration and the influence on financial performance

Collaborative research of over 3,700 study results from more than 2,200 unique primary studies found evidence for the ESG business case. In fact, 62.6 percent of studies have shown a positive correlation between the inclusion of ESG factors in investment decision making and financial performance (Friede, Busch, and Bassen 2015). However, a significant amount of studies question that these investment class is value-enhancing for shareholders. The distinction of sustainability issues material for a company's ESG evaluation may lead to mixed results. Financially material ESG factors potentially have a significant impact, both positive and negative, on a cooperation's business model and value drivers, such as revenue growth, required capital and risk. Therefore, it is of utmost importance to test the value implications of such sustainability investment and distinguish between materiality and immateriality (Khan, Serafeim, and Yoon 2016). The material factors are likely to vary across firms and industries (Eccles and Serafeim 2013). The authors Khan et. al. (2016) present evidence that SRI leads to financial outperformance. They strengthen that investment in immaterial sustainability issues does not lead to better performance, may even detract from it. A recent study highlights that traditional ESG scores are composed of a large number of immaterial sustainability issues. Additionally, academic research practitioners, such as Task Force on Climate-Related Financial Disclosures (TCFD) and the International Integrated Reporting Council and Sustainability Accounting Standards Board (SASB), stress to identify material issues by industry in order support investor integration and company disclosure of relevant data in asset allocation decision. Standards are being developed that are specific to different industries and ESG data providers weight subcategories differently based on their relevance (Steinbarth and Bennett 2018). Materiality is of great importance when developing ESG integration for VC funds. However, difficulties may arise as current research mainly focuses on ESG factors of publicly listed companies as more data is available. In fact, sustainable investments extend across a multiple range of assets, however 51 percent of assets are allocated to public equity, followed by 36 percent in fixed income. PE and VC hold 3 percent of global sustainable assets in 2018 (GSIA 2018).

3 The sustainable investment ecosystem in the Venture Capital industry

VC has shown to be an integral part in spurring innovation, and it may be argued that it will play a fundamental role in meeting the challenges that arise within the transition to a sustainable world. Research reveals that VC backed companies have a higher survival rate compared to non-VC backed start-ups (Chrisman, Bauerschmidt, and Hofer 1999). Kortum and Lerner (2000) find that VC is three to four times more powerful than corporate R&D. Due to the continuous rise of a knowledge-driven economy, VC funds will play a crucial role in financing the new generation of highly innovative firms (Monika and Sharma 2015). Sustainable businesses that deliver triple bottom line results will depend on substantial investments from VC funds. In fact, interest in sustainable business models is growing, although VC firms focusing on SRI are not yet widespread (Bocken 2015). The following chapter provides an overview of the VC asset class, the structure of funds and how performance is measured to evaluate possible ESG integration methods in order to build a common understanding when discussing the outcomes of the expert interviews in the qualitative part of the thesis.

3.1 Definition of Venture Capital as an asset class

The definition of VC has evolved over time, but may be broadly described as supply of capital and know-how by institutional investors to start-ups (Klonowski 2018). Invest Europe (IE) considers VC as a subset of PE and defines it as "*equity provided to entrepreneurial firms not quoted on a public stock exchange*" (Invest Europe 2020). OECD (2017) defines VC as "*a form of equity financing particularly relevant for young companies with innovation and growth potential but untested business models*." Start-ups may be recognized as a possible answer to a wide range of social and environmental challenges (Hall et. al. 2010). Therefore, VC plays a key role in encouraging entrepreneurship (Bocken 2015) and is an integral part as a financial intermediary providing capital to firms that may have difficulty in obtaining capital from other traditional financial institutions due to high levels of uncertainty (Gompers and Lerner 2001). Apart from that, VC firms provide coaching, closely monitor activities and provide access to their valuable network of business contacts and alliances (Wang and Wang 2012). VC funds have proven to be a highly successful model to fund disruptive companies, as the majority of initial public offerings (IPOs) in the US and the largest tech companies in the world such as Apple, Amazon and Google are VC-backed. Papers find that approximately half of so called entrepreneurial IPOs in recent years are venture-backed, regardless the fact that only 0.2 percent of all companies receive venture funding (Kaplan and Lerner 2010). VC differs from other financial instruments in multiple ways. VC funds are investing in the equity of a start-up, through capital increase and various venture rounds or debt-like financial instruments such as convertible debt (Klonowski 2018). VC rounds are staged as they represent a strong control mechanism for investors. Studies indicate that VC funds obtain information and observe progress by staging investment, allowing them to abandon projects periodically (Gompers and Lerner 2004). While there are no harmonised definitions of funding rounds across VC associations and international data providers, IE nevertheless classifies three investment stages: Seed, Early Stage and Later or Growth Stage.

3.1.1 The traditional structure of Venture Capital funds

The structure of VC funds is of importance in order to develop an understanding of the potential to integrate SF investing approaches such as ESG. The investment lifespan of ten years, which is fixed ex ante, is a distinctive feature compared to other financial intermediaries. Funds are raised from outside investors, so called Limited Partners (LPs), most commonly pension funds, banks, insurance companies, wealthy individuals, family offices and asset managers. These funds are trusted to General Partners (GPs) who deploy the capital and return funds and financial gains to LPs within the mentioned time horizon of ten years (Barrot 2016; Cumming et. al. 2017). In addition, it is essential to understand how GPs are compensated, as this dynamic influences the behaviour of a fund and its managers and is therefore an integral part of the investment process (Feld and Mendelson 2012). VC funds consist of two main building blocks: management fees and carried interest. The former is typically charged as an annual percentage between 1.0 and 2.5 of the committed capital to a fund, depending on its size. Typically, the smaller the fund the larger the percentage, as more resources are required. Carried interest (also called carry) constitutes a basic element in VC and PE fund structures, as it is a key component to align interest between LPs and GPs. Carry is negotiated as a fixed percentage of the fund's earnings, generally 20 percent. Fees tend to be higher than in other asset classes as VC requires an active investment style (Invest Europe 2016). Furthermore, the VC fund performance is commonly measured by a fund multiple, the total distribution relative to the total takedown, and the internal rate of return (IRR), considering the time value of money. The measurement of performance is challenging due to cash flow volatility and unique characteristics. The latter as a result of the absence of mature markets valuing the assets. Hence, true performance of a VC fund may only be correctly evaluated at the end of its investment cycle (Invest Europe 2016). However, VC fund managers need to report their performance and interim valuations (usually quarterly), according to International Private Equity and Venture Capital (IPEV) Valuation Guidelines (IPEV 2015). The one-year horizon IRR of VC funds globally stood at 15.9 percent in Q4 2019, while the S&P 500 stood at 9.1 percent. Larger funds (over $250M) outperformed smaller vehicles in the last years as it may be seen in Exhibit 7. Data shows that PE and VC had the highest returns in the market and outperformed other asset classes (PitchBook Data 2020). This asset class continuously gained attractiveness over the last years and will have significant financial levers, thus sustainable investment methods (as explained in 2.2) in this field will be essential to encourage sustainable businesses.

3.1.2 Venture Capital firm's investment process

Besides the VC business model described in chapter 3.1.1, the investment process and the subsequent monitoring of a start-up's development are crucial to understand how investors may potentially integrate ESG criteria into their investment process. VC investors are facing numerous challenges when identifying new portfolio companies. In a simplified scheme, it starts with the proposal of a new venture and ends with a successful exit and an adequate return for the fund and its LPs (Monika and Sharma 2015). In the literature, different VC investment process models exist. Tyebjee and Bruno (1984) were the first to propose a simple five stage model including: (1) Deal Generation – identifying potential investment opportunities; (2)

Screening – reviewing proposals with a focus on technology, product, market and founders; (3) Evaluation – assessment of risk and return; (4) Structuring – negotiating and establishing terms and investment; and (5) Post-investment activities – monitoring and follow-up rounds, more broadly all value-adding activities. However, VC investors argue not to rely on formal and structured investment processes as investment decisions are driven by tacit knowledge (Klonowski 2010).

3.1.3 Venture Capital and the sustainable investment ecosystem

Sustainable businesses that deliver triple bottom line results depend on substantial investments in order to address the global sustainability challenges. Interest in sustainable business models are on the rise, though VC firms focusing on SRI are not yet widespread (Bocken 2015). The European Investment Fund (EIF) conducted two pan European surveys and found that approximately 7 in 10 VC funds incorporate ESG criteria into their investment decision process (Botsari and Lang 2020). Connecting VC and sustainability and integrating it in a VC fund's investment process is a challenging task. The competition among VC funds to get access to promising investment opportunities has significantly exacerbated over the last years, due to a sharp increase of funds being raised and their median fund size (PitchBook Data 2020). VC firms with a SF angle have the difficult task to not only identify and get access to start-ups that generate strong economic returns, but also to integrate ESG into their investment process or to create a positive impact (Exhibit 5). VC firms operate under a specific investment thesis and sustainable VC firms use it as vast compendium to build a balanced sustainable portfolio (Bocken 2015). Berry and Junkers (2013) found that VC funds are generally following a more holistic approach in selecting businesses who represent positive behaviour and impact. Botsari and Lang (2020) state that the most widely cited motives to integrate ESG engagement into the investment policy are ethical or socially responsible considerations and to encourage change to promote a shift towards responsible business practices among the companies invested in.

Furthermore, nearly half of the surveyed VC funds integrate it because of the positive reputational signal. VC firms apply ESG screening especially on an exclusionary basis at due diligence. This *negative screening* approach is mainly used as it is considered to be a relatively easy method to become ESG compliant (Exhibit 9). Fund managers who consider ESG factors for their relevance on investment performance pursue a *positive screening* approach, as it is considered as an opportunity to create value (Exhibit 10).

4 Qualitative Research

4.1 Methodology

In the next section of the master thesis, the methods and results of the empirical research are presented. The area of SRI, ESG and impact investing is at an early phase and has only recently developed (Agrawal and Hockerts 2019). Additionally, the scientific contributions are still rare in terms of VC funds integrating ESG into their investment process and portfolio management and data is only partially available. Consequently, the empirical research aims to understand the behaviour of the market participants as the topic of ESG investing becomes the focus of attention. The research currently available is not a promising starting point to generate meaningful data necessary for a quantitative research method. Under these conditions, the *qualitative interview* constitutes a suitable method in order to derive empirical data (Kolb 2008). The goal of the expert interviews is to answer the main research question and the derived sub-research questions. The main focus lies on the general understanding of ESG and its relevance in the investment process and portfolio management of fund managers. Furthermore, initial insights into obstacles and potentials are provided. In order to enable a concise structure, five sections are implemented, each representing different thematic categories of the expert interview. Each category is included as a table in Exhibit 12 - Exhibit 16. Generalizations are cited and corresponding exemplary statements are made as interviewees preferred not to be quoted. For the purpose of ensuring anonymity, they were paraphrased in advance. 10 expert interviews were conducted in an average time rage of 26 minutes. In Exhibit 11, interviewed VC funds are listed, classified along the investment spectrum and an overview of the assets under management is provided.

4.1.1 Overview of the interviewed funds and their investment approach

The 10 interviewed VC funds are primarily pan-European Seed and Early-Stage funds with ticket sizes between €250,000 and €5M, depending on the investment round and stage. 5 out of 10 interviewed investors are typically lead investors and only follow-on after the Series A round. 4 funds preferably try to find co-investors and leading the round is not an investment requirement. Only 1 fund preferred to follow-on. Furthermore, most funds prefer to have a board seat to have a stronger influence on early development of the start-up, however, was only an investment condition for 4 of them. This information will be relevant when analysing ESG investment approaches in the next chapter. During the interviews, the following quote was mentioned: "*For the fund return to make sense we want to have a target ownership of around 10 percent. We want to have decent stake in the company to help them grow until a bigger investor takes over.*" More detailed information about the investment focus areas of the funds, their investment process may be obtained in Exhibit 12.

4.2 Findings

In general, ESG is a relatively new investment approach to most VC funds. Most funds implemented *negative screening*. However, this is particularly due to the nature of the business as investments, e.g., in weapons, are extremely rare in the start-up economy. When it comes to more sophisticated and formalized approaches, many interviewees mention the difficulties arising as a result of many different prevalent frameworks of which many may not fit into risk measurements material for start-ups. One of the main motivators to integrate a full ESG approach in the fund is the perception of rising demand by LPs and the introduction of new regulations it in the future. 6 interviewed investors consider investing ethically and socially responsible, as they argue that they are financing the companies of the future, desirably the next unicorn.

4.2.1 Definition of ESG and SRI in VC funds

The purpose of this section is to illustrate the definitions commonly used in the VC funds analysed. Thus, the main objective is to answer **SR1**.

First of all, it may be stated that ESG is a concept well understood by every expert interviewed and the concepts of SRI of the UN and its SDGs are commonly used. However, for most funds no definition has been implemented. In fact, even in funds itself SRI and ESG might be defined differently form one person to another. An exemplary paraphrased statement: *ESG is an investment approach that integrates non-financial considerations into the investment decision and portfolio management. It incorporates climate, social and ecological relevant data to current financial KPIs (Key Performance Indicator) measured to evaluate the performance of investments.* Generally, VC fund managers consider the same SRI and ESG investment fields. Mostly start-ups that try to solve one of the 17 SDGs may be classified as SRI and ESG relevant. Industries that are mentioned the most were: (1) CleanTech or GreenTech, (2) Digital Health, (3) Energy Management, especially in Industrial Tech, (4) DeepTech, especially data privacy and security, (5) PropTech, (6) FinTech and (7) EdTech (Exhibit 13).

4.2.2 ESG integration in investment process and portfolio management

In a next step, the findings about the current ESG integration in the investment process and portfolio management are analysed, aiming to answer **SR2 and SR3**. 5 funds interviewed have a formulized ESG policy in place and 2 are currently working on one. 3 funds do not consider formulizing their ESG investment approach in the next years. Nevertheless, all funds interviewed have *negative screening* in place, which is not always specified in their LP agreements. Only 3 funds interviewed have ESG criteria in their investment memo and are actively discussing non-financial criteria regarding their investment decision. Nevertheless, most fund managers mention the existence of a non-formalised ESG investment approach. Interviewed investors with more AuM report a higher degree of ESG integration, if they are not focusing on impact investing per se. 3 interviewed VC fund managers say that they have ESG criteria in their investment memo and discuss ESG or non-financial criteria in every investment decision and it is part of their day-to-day business. One interesting quote is: "*Firm consciousness is essential and ESG must be deeply integrated into the company culture to guarantee ESG criteria is not only well incorporated in the investment process but also part of portfolio management. As such, the fund serves as a role model for all employees and start-ups."* On the other hand, 3 VC funds asses formulizing ESG criteria and integrating them into their fund policy might limit the investment funnel and exclude promising deals. A suitable paraphrase emphasizing this is: *Our primary goal is to return funds to our LPs and our general perception is that opportunities within the SRI space and the integration of ESG criteria may lead to the same returns as we are having now. For us, it is on the one hand very natural to look into that space because VC funds always want to catch the wave of new opportunities and trends in the market, on the other hand we think it is not a necessity to have very formal investment criteria to invest in that space.* All interviewed funds are maintaining an active investor role and require extensive reporting of their portfolio companies. However, only four funds are actively measuring non-financial KPI's of their portfolio (Exhibit 14).

4.2.3 Opportunities and Risks of ESG factor integration

In this part of the qualitative research, the main purpose is to answer **SR4** to analyse the main motivation of investors when integrating ESG into the fund policy. All investors interviewed have the conception that ESG integration offers many opportunities. Its importance in the market will grow within the next years but is still at a nascent stage. 3 of the interviewed investors have the opinion that ESG factor integration might lead to better fund performance and less risk exposure yet indicate the lack of adequate data available. Here, two generalizations may be demonstrated: *"It is too early to conclude that ESG factor integration leads to better fund performance and less risk exposure, very simply because we do not have a commonly accepted framework for VC funds."* And *"there is a lack of adequate ESG disclosure in the market, limited resources and expertise of fund managers on ESG factors."* Most interviewed investors share the same view and consider the integration of ESG as a challenging task. They report that finding a consistent way of reporting and a framework that may be easily applied is provoking. Especially, because of the diverse investment fields and industries they are focusing on at a very early stage of a company. Funds who integrate a policy are mostly oriented on SASB or SDG goals. The funds who already integrated a policy have the perception that ESG integration will become a standard in the future and they want to be proactive, mainly because they realize that more LPs are requiring them and are actively asking for non-financial KPIs in the reporting. One interesting quote is: "*We believe it will lead to higher returns as our assets are and will be less exposed to risk. It will prepare us and start-ups for the future, as in money will flow primarily into green start-ups and their vehicles. If the start-up understands ESG at a very early stage and we can advise them, they will be less exposed to risk, especially at a later stage when they are high growth companies and break out cases."* The research shows that funds believe the pressure from LPs and start-ups will intensify. The best founders may preferably work with trustworthy funds when it comes to sustainable investing. "*The integration of ESG, especially in a more formalized thus binding way may lead to more credibility and to more investments in start-ups who have an impact on at least one of the SDGs."* In regard to the non-financial reporting to LPs, fund managers mainly avail non-standardized reporting approaches due to challenges of no standardized framework for VC funds exist and the diverse industries and business models they invest in. A frequently mentioned approach when identifying the most important non-financial data for the performance of a start-up is to align the goals in onboarding sessions. In addition, it is crucial to identify feasible and material non-financial data to track, just as VC funds typically identify financial data they want to monitor over time. The most mentioned obstacle by the integration besides a commonly used framework is that fund managers are concerned that an ESG fund policy tightens their funnel and they may miss out on promising deals. Most arguably because competition between VC funds is high and it is already difficult to get access to the best founders. A suitable paraphrase emphasizing this is: *Entrepreneurs are primarily driven by their vision to solve a problem than financial incentives, as most start-ups will fail in the long run. VC firms obviously play an important role in financing the entrepreneurs who solve integral problems. However, I do not believe funds need to integrate an ESG policy to invest in them.* Nevertheless, most VC firms have the perception that it might limit them only in the short run and will lead to prosperous ecosystem in Europe in the long term (Exhibit 15).

4.2.4 Potential of ESG investment criteria in Venture Capital and future outlook

The interviewed investors have a strong sentiment towards the crucial role VC funds may play in the transition to a more sustainable economy and financial system. Hence, it is of utmost importance that VC funds invest their money wisely and ethically responsible to finance the right solutions needed to tackle the world's most pressing challenges. A suitable paraphrase is: *The VC industry in Europe has impressive growth rates and is going to play a stronger role in the financial market. If we are backing sustainable and responsible start-ups this might have an important trickle up effect that puts prevalent cooperation's under pressure as they fierce competition.* VC firms urge start-ups to achieve exponential growth rates, one of the primal issues leading us to irrational business practices and disparity. Therefore, a radical change of the investment decision making process is required and investors are in need of changing their investment strategies. Embedding ESG criteria along the entire investment process, from the initial screening phase to the term sheet, is required to ensure long term success and sustainable growth. One paraphrase emphasizing this: *VC firms in general need to be more aware of how* *to better formalize their investment process to get away of tacit knowledge of partners within the fund and rely more on financial and non-financial data. We should not be afraid of the integration of ESG into the fund policy as it will only reduce potential bias and ensure sustainable growth in the long run. The EU Taxonomy Regulation is an important starting point, and we need to start acting to be well positioned for the future.* VC firms are mentioning the importance of the EU Taxonomy Regulation as driving force and emphasize the potential ignition of regulations. Alliances in the VC industry to find a standardized framework for funds and start-ups may be a vital starting point into the transformation of sustainable business practices (Exhibit 16).

5 Discussion

In the following section of the paper, the results of the expert interviews are presented. Beginning with **SR1:** *How profound is the understanding of SRI and ESG in Early-Stage Venture Capital funds in Europe?* It may be concluded that ESG and SRI investment is a concept well understood by European Early-Stage investors. VC firms have a clear understanding about the investment fields they want to focus on and why they classify them as SRI investments. Nevertheless, only half of the interviewed funds have a formulized ESG policy in place as they argue having difficulties in finding the right framework to identify non-financial KPIs. Thus, the conclusion to **SR1** is as follows: All Early-Stage funds analysed are familiar with the term ESG and SRI investing, hence, have a certain understanding of this investment area. However, a universal definition within the fund is commonly not yet established and a delimitation between SRI and ESG is mostly not present. By means of the **SR2**: *To what extent do Early-Stage Venture Capital funds in Europe incorporate ESG criteria into their investment process and portfolio management?* The scope of a prior defined ESG criteria integration is assessed. After analysing the interviews, it becomes apparent that most Early-Stage funds merely have an exclusionary approach, *negative screening*, established. The interviewed experts consider ESG as a viable strategy to implement sustainability into their investment process and portfolio management. Thus, a noticeable trend towards the formalization of ESG criteria into the investment process and portfolio management may be concluded. However, particularly full ESG integration is rarely seen, especially as investors have great difficulty in using a commonly accepted framework for funds and their portfolios. The answer of **SR2** is answered as follows: According to the pre-defined SF investment strategies, *negative screening* is the most frequently used criteria. Followed by *positive screening* and *Active Ownership*. Nevertheless, most Early-Stage VC funds are not including non-financial KPIs into their investment criteria and portfolio management, hence frequently no holistic investment approach is implemented. In order to gain a better understanding of the significance of ESG factor integration, the following **SR3** was implemented: *How does ESG factor integration matter to European Early-Stage Venture Capital fund managers in order to finance start-ups who have a positive impact?* It can be stated that ESG factor integration is considered to be fundamental in terms of financing start-ups with impact driven business models, but the market itself appears to be at a nascent stage. In the short-term, VC firms have the perception ESG integration is not required in order to finance impact driven start-ups as they are primarily driven by financial returns and are opportunistic. In the long-term integration of ESG, especially a more formalized way may lead to more credibility, enabling easier access to the most promising start-ups and founders. Therefore, **SR3** may be answered as follows: European Early-Stage Venture Capital fund managers maintain a favourable sentiment towards SRI and ESG criteria integration leading to better access of funding for start-ups with a positive impact. VC firms will follow the most promising markets with exponential growth rates. In order to gain access to start-ups in the impact space, they need to gain credibility in the long-term. In the short-term, VC firms do not grasp the necessity of implementing ESG criteria to invest in impact driven businesses. However, fund managers argue that competition might intensify in the future. **SR4** states: *Why are Early-Stage Venture Capital funds implementing ESG investment criteria and what risks and opportunities are arising?* The main motivator behind ESG integration are LPs requiring reporting of non-financial KPIs and the conception of an intensification in the long-term. Thus, a positive reputational signal may be an integral aspect in integrating ESG in order to gain trustworthiness at LPs as well as start-ups. The integration of ESG due to less risk exposure of a portfolio is one of the least frequently mentioned reasons, mainly because of the lack of adequate data. Generally, fund managers opine that ESG policies may lead to better fund performance and less risk exposure, still emphasizing that the deficiency of inconsistent reporting limits the validity of impact driven measurements. Furthermore, because of no commonly used framework, VC funds are lacking the knowledge of the right tools to implement. VC firms express the concern that ESG integration might tighten the investment funnel, excluding promising start-up deals. Yet, the notion is prevalent that in the long-term it may lead to a prosperous start-up ecosystem and business practice in Europe and impact driven investment will be a lucrative market. Consequently, **SR4** may be answered as follows: *Early-Stage Venture Capital funds* implement ESG investment criteria mainly due to the fact that LPs often require reporting on non-financial criteria and an intensification is perceived in the next years. The main opportunity observed is the gain of credibility at LPs and start-ups in the future in order to gain access to the most promising deals in the SF investment industry. The main risk is the usage of the right framework in order to measure material non-financial criteria and a potential tightening of the investment funnel in the short term. After answering **SR1 – SR4** the main research question may be analysed: *What is the significance of ESG factor integration in Early-Stage Venture Capital funds in Europe?* The significance of ESG factor integration depends heavily on the prevailing SRI and ESG definition within the fund and the responsible investor. Frequently, there is no formulated ESG investment approach implemented, although a *negative screening* approach is very common. Clearly, VC firms recognize the need for more holistic ESG integration as LP demands increase and investments in impact-oriented entrepreneurs and start-ups grow rapidly. Following the EU Taxonomy Regulation, VC funds are increasingly recognizing the significance of ESG integration. Thus, alliances in the VC industry to find a standardized framework for VC firms and start-ups may be a vital starting point into the transformation of sustainable business practices and further growth of the investment criteria. As for the **R1**, the answer is as follows: The ESG factor integration in Early-Stage VC funds in Europe is still at a nascent stage yet seems to be entering the investment mainstream as more and more VC firms are incorporating ESG criteria into their investment process. The driving force are LPs, requiring the reporting of non-financial KPIs and the positive reputational signal potentially associated with it. Therefore, VC funds are moving from traditional investing to SRI and impact investment strategies to meet criteria necessary in the near future. A standardized framework for VC may be needed for the future in order to accelerate growth of SRI and ESG investing.

6 Limitation and Further Research

Whilst comprehensive literature review was conducted, it must be noted that scientific approaches and opinions on ESG investing in Early-Stage VC funds are at an emerging stage. Including all necessary practitioner contributions exceeds the scope of this thesis, yet an attempt was undertaken to select the most relevant European Early-Stage investors with a significant amount of assets under management. This circumstance is particularly important for Early-Stage funds, as scientific literature on ESG investing in VC is rarely available. Another limitation represents the selection of the 10 interviewed VC firms. The selection of VC funds in different major European start-up hubs certainly represent a reasonable cross-selection but is not comprehensive. Consequently, the results of the empirical study in particular may not be applied to derive general validity and conclusions. This part also refers to the conduct of the expert interviews. Potential bias in the expert interviews was mitigated with the implementation of an interview guide. Further research might focus on the ESG frameworks used and evaluation of potential guidance in the integration of ESG fund policies. Furthermore, future research may focus on mechanisms that influence the process of sustainable investing, such as carried interest based on impact performance of portfolio companies. This master thesis focused on ESG integration in Early-Stage VC funds in Europe, not on funds with maximum-impact solutions.

7 Conclusion

The integration of ESG into the investment process and portfolio management of investors is attracting increasing attention. This master thesis provides first research on the integration of ESG considerations in the areas of Early-Stage VC firms. Evidence based on literature review and expert interviews confirms the general market perception that ESG investing is entering the investment mainstream, with the vast majority of funds interviewed reporting that they are incorporating or working on ESG in their investment policies. The usage of ESG data is predominantly focused on deal flow generation and screening particularly as *negative screening* is most frequently applied. However, a generally applicable definition of ESG within the fund is not yet formularized in most funds leading to a lack of formal monitoring of non-financial KPIs. Furthermore, it appears that ESG integration is at focal stage and *positive screening* and *Active Ownership* are gaining popularity. Especially at GPs who consider ESG integration as a tool to invest in the companies shaping future markets. Another driver of ESG integration is the growing demand of LPs to invest in ESG compliant funds. Moreover, because of the EU Taxonomy Regulation VC firms are increasingly recognizing the significance of ESG integration. However, most practitioners deplore the lack of a standardized ESG framework and the challenges arising when measuring material non-financial KPIs. The limited quantifiable ESG information and adequate ESG disclosure standards for start-ups highlight a key barrier for stronger growth. Hence, further research may focus on adequate disclosure of material ESG factors and potential frameworks, not only for VC firms but also for start-ups.

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Appendix

Exhibit 1 – Overview of Sustainable Finance definitions by organization

ICMA	*"Sustainable Finance incorporates climate, green and social finance while also adding wider considerations concerning the longer-term economic sustainability of the organizations that are being funded, as well as the role and stability of the overall financial system in which they operate."*
EUROSIF	*"Sustainable finance is a long-term oriented investment approach which integrated ESG factors in the research, analysis and selection process of securities within an investment portfolio."*
UNEP	Sustainable finance are services that *"are aligned with the Sustainable Development Goals, including the implementation of the Paris Agreement on Climate Change."*
PRI	*"Responsible investment is a strategy to incorporate environmental, social and governance (ESG) factors in investment decisions."*

Exhibit 2 - 17 Sustainable Development Goals (SDGs) (UN 2020)

Exhibit 3 - The 6 Principles for Responsible Investment (PRI)

Principle 1	We will incorporate ESG issues into investment analysis and decision-making processes.
Principle 2	We will be active owners and incorporate ESG issues into our ownership policies and practices.
Principle 3	We will seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4	We will promote acceptance and implementation of the Principles within the investment industry.
Principle 5	We will work together to enhance our effectiveness in implementing the Principles.
Principle 6	We will each report on our activities and progress towards implementing the Principles.

Exhibit 4 - Differentiation of ESG, SRI and Impact Investing

Environmental, social, governance (ESG) investing	**Socially Responsible Investment (SRI)**	**Impact Investing**
ESG is defined as the consideration of environmental, social and governance factors alongside financial factors in the investment decision-making process (MSCI 2020).	SRI incorporates ESG factors in investment decisions and active ownership. Most commonly negative, positive or Best-in class screening are used (PRI 2013).	Investments made into companies and funds with the intention to generate both financial return and positive, measurable social and environmental impact (GIIN 2020).
(1) Sustainable Investing; (a) Active Ownership; (b) ESG integration	**(2) Screening Investing**; (a) Negative Screening; (b) Positive Screening; (c) Best-in Class; (d) Norm-Based Screening	**(3) Impact Investing**; (a) General; (b) Themed Investing; (c) Impact-first

Exhibit 5 - The spectrum of investment approaches (PRI 2013)

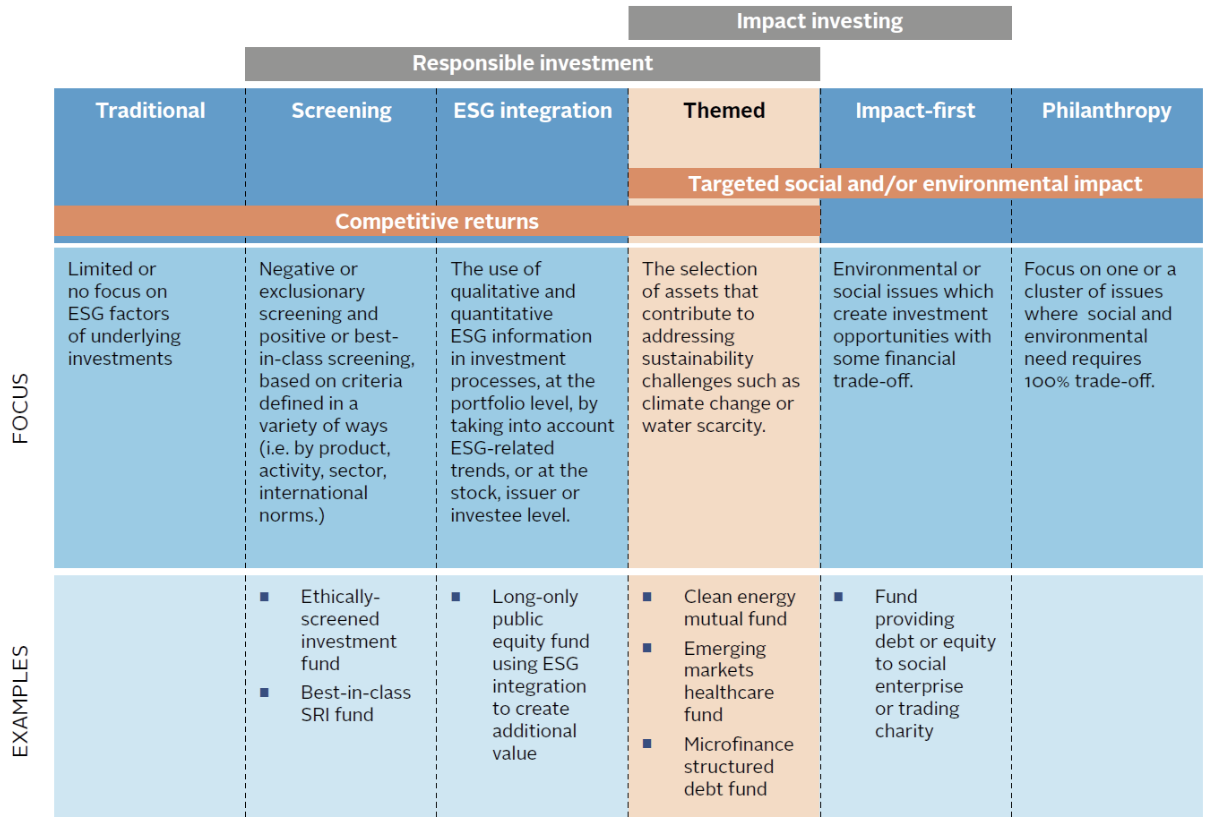

Exhibit 6 - The spectrum of investment approaches to classify VC firms (Sonen Capital 2020)

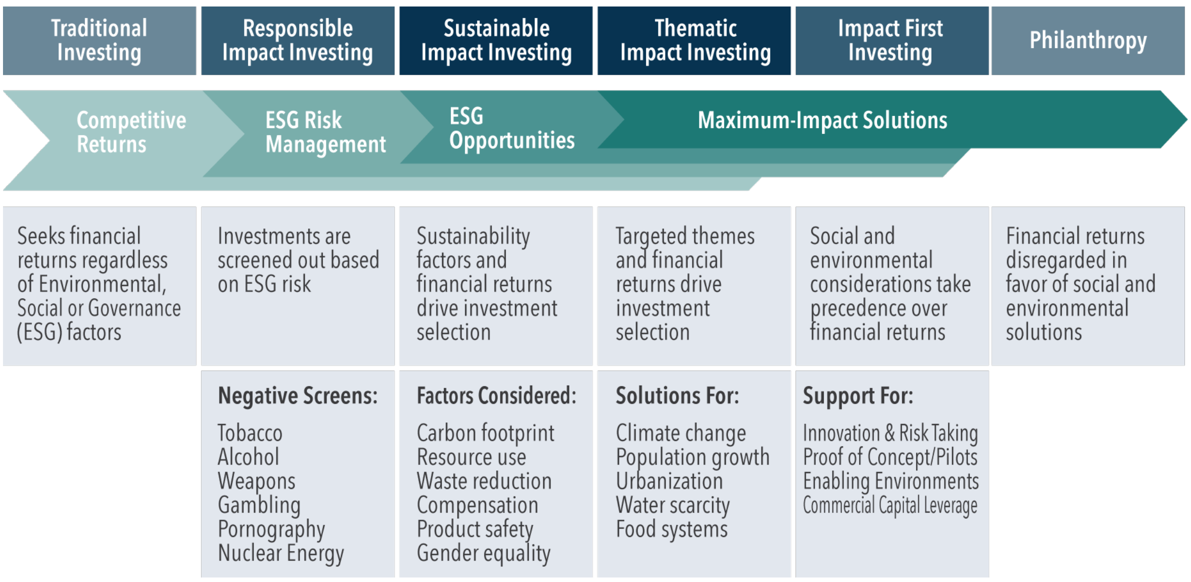

Exhibit 7 - IRR fund performance by size (PitchBook Data 2020)

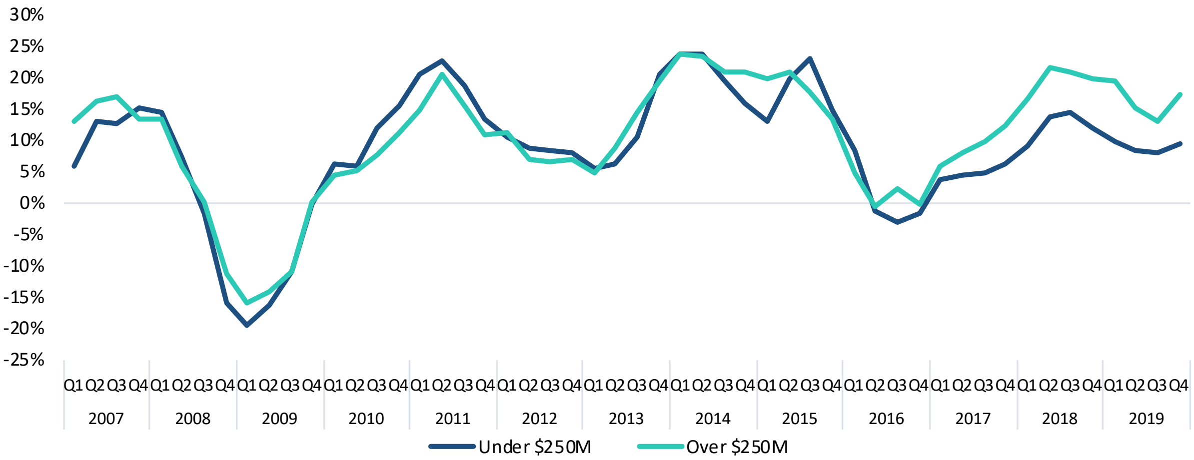

Exhibit 8 - one-year change in pooled TVPI multiples for VC funds by vintage (PitchBook Data 2020)

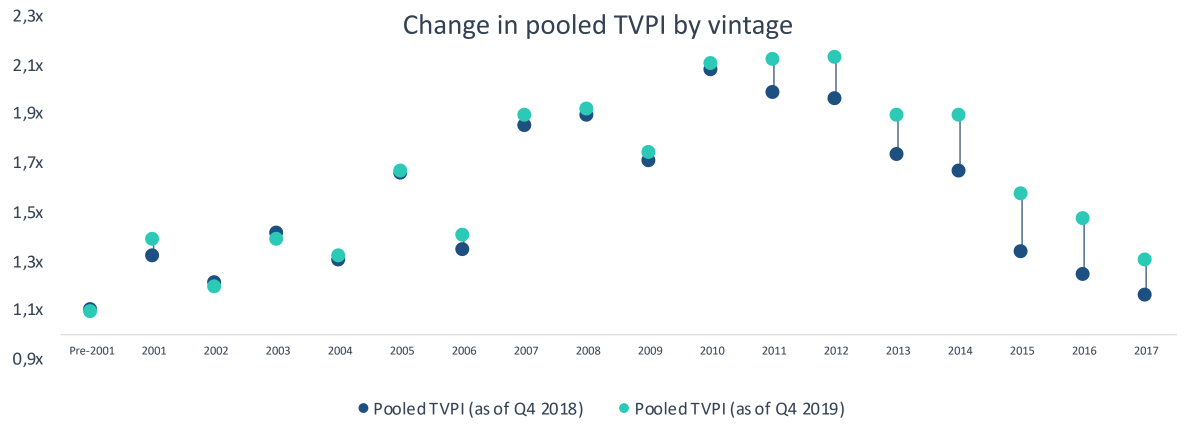

Exhibit 9 - ESG investment criteria implemented (Botsari and Lang 2020)

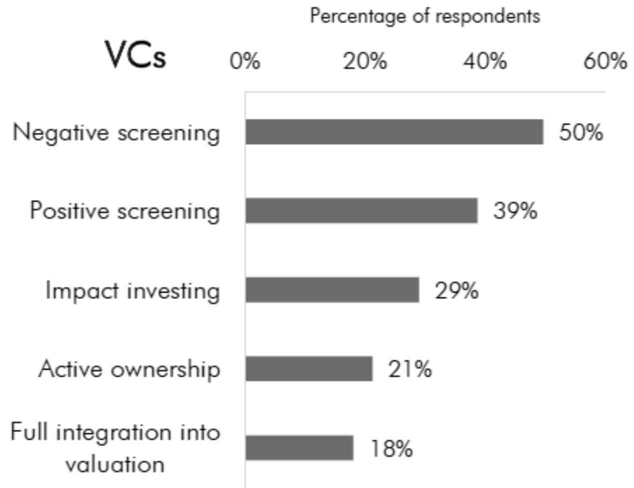

Exhibit 10 - Motivation for ESG engagement (Botsari and Lang 2020)

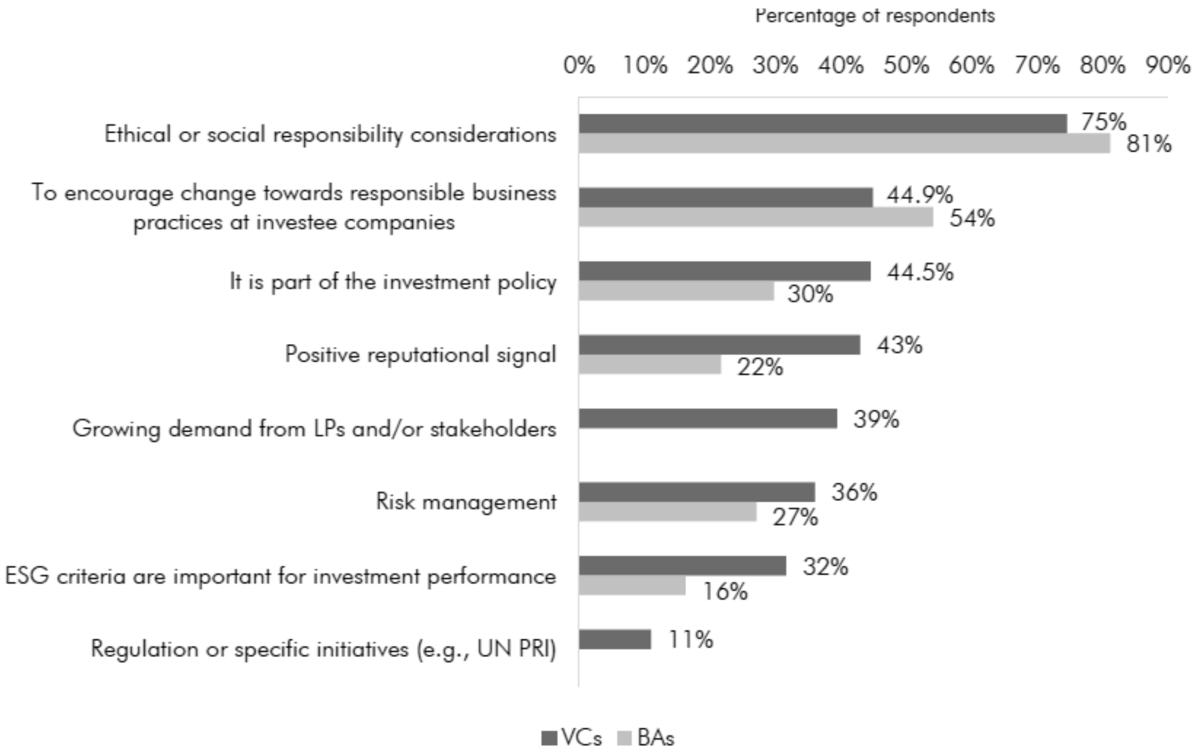

Exhibit 11 - Interviewed VC funds and classification along the sustainable investment spectrum

Fund	Country	Classification	Interviewee Role	AuM	Date	Time
Allianz X	DE	Responsible Investing	Associate	1bn	23.11.2020	22:28
All Iron Ventures	ES	Responsible Investing	Associate	100M	04.12.2020	25:54
Amadeus Capital	UK	Responsible Investing	Associate	1bn	11.12.2020	26:12
Concrete Ventures	UK	Sustainable Investing	Associate	100M	25.11.2020	29:30
Frontline Ventures	UK	Sustainable Investing	Associate	150M	24.11.2020	24:17
Global Founders Capital	UK	Responsible Investing	Associate	1bn	16.11.2020	25:32
Mustard Seed MAZE	PT	Thematic Impact Investing	Analyst	40M	25.11.2020	22:25
Octopus Ventures	UK	Sustainable Investing	Operations	1.3bn	30.11.2020	26:01
Speedinvest	AT	Responsible Investing	Associate	400M	03.12.2020	32:59
Yabeo Capital	DE	Thematic Impact Investing	Partner	50M	30.11.2020	28:45

Exhibit 12 - Overview of the investment stage, industry focus, average ticket size and target ownerships of the interviewed funds

Main Question	Expected Content	Additional Questions
Opening talk	**Description of the venture capital fund** **Description of the position in the company**	**In which industries is the venture capital fund investing?** (1) Mainly focused on marketplaces, especially consumer and e-commerce. However, in many different spaces such as Propech, HealthTech, FinTech and EdTech. (2) Mainly focused on FintTech and InsurTech. (3) We mainly invest in B2B software companies. (4) We are a PropTech Fund in Europe and advice big real estate players in innovation and digital transformation management. (5) Pan-European VC sector agnostic; different SDGs that are all incorporated in our investment strategy. (6) B2B startups in all areas, mainly DeepTech, FinTech and HealthTech (large part of the portfolio) Pan-European VC, Seed and Growth fund, helping European founders to go to the US and vice versa. Ability to go early, most investments are pre-product and pre-revenue. (7) We have many different focus funds and there are not a lot of sectors we do not invest in. We mainly focus on Fintech, DeepTech, marketplaces, digital health, Industry 4.0 and Consumer. (8) We are sector agnostic and invest in startups that are tackling one of the 10 SDGs we have selected. (9) Pan-European fund that invests across multiple industries and has many focus funds. Industry 4.0, Consumer, DigitalHealth, marketplaces, DeepTech, FinTech and we have a team that is focusing on new market trends. **What is the average ticket size and in which funding rounds do you typically invest in?** (1) Early-Stage fund, mostly focused on Seed and Series A, tend to invest between 500K – 2M. (2) Seed Fund, Sweet spot 500K – 1.5M, invest Pre-seed, Seed and Series A, follow-on in later rounds. (3) Early-Stage fund Pre-seed until Series B raging from 150K to 2M + follow-on. (4) 250K – 2.5M.

		(5) Seed and Early-Stage, Pre-seed and Seed. Ticket Size: 100K-1M. Follow on until Series A: pro-rata or more. (6) Early-Stage Fund, Seed and Growth Fund, tend to invest Seed to Series B: 1M-5M. Average ticket size 5%, lead investor in Seed, but follow-on later stage and depends on industry. (7) Later-Stage, the minimum ticket size is 10M and we want to be lead investor, however, is not a must (8) Early-Stage fund: Our ticket size is between 1M – 5M. (9) Early-Stage: We invest between 750K and 5M, depending on the stage as we do follow on rounds up until Series B. **What is the target ownership of the fund? Are you typically lead investor, or do you prefer to follow-on?** (1) Pan-European VC with some investments in US and Latin-American. At Seed Stage or Southern Europe, we want to lead the round, at later stages we follow-on. If we are lead investor, we require a board seat. (2) For the fund return to make sense we want to have a target ownership of over 10%, model is not spray and pray, decent stake in the company to help them through their growth process. Tend to lead at Pre-Seed and Seed we co-invest much more often. Want to lead naturally and have a board seat. (3) We usually try to lead or co-lead the round our sweet spot is between 6 and 10%, we prefer to have a board seat when we go in early. (4) Average ticket size 5%, lead investor in Seed, but follow-on later stage and depends on industry. Board Seat is not a must. (5) Preferably lead inventor with a target ownership between 10-15%, at later rounds like Series A we follow on. We require a board seat. (6) Most of the time we follow-on and do not take any board seats. Try to have a stake between 2.5-10%, new fund will be lead investor and focus more on Series A. Bridge real estate with Proptech and advice both. (7) Our goal is to have a ticket size between 5% and 10% and we prefer to be the lead investor, but it is not a condition. Board seat is not a requirement.

		(8) Our average target ownership is between 7% and 10% and we prefer to lead the round and have a board seat. (9) Target ownership is between 5% and 12%, we are always looking for good co-investors and do not demand to lead the round and to have a board seat. **What fields of activity does your investment team cover?** (1) Very small team so all of the one mentioned above. (2) Digital Health, Consumer and B2B Enterprise Software. (4) FinTech and Insurtech. (5) Sector agnostic. (6) Very broad, reaching from EdTech, SaaS Business Models, Consumer to B2B. (7) Digital Health, Consumer, B2B Software, Future trends. (8) Sector Agnostic. (9) Fintech, Insurtech and HealthTech.

Exhibit 13 - Definition of ESG and SRI in VC funds

How would you define SRI and ESG?	**Definition of SRI**	**How would you define sustainable and responsible investment (SRI)?** (1) We mainly follow the Principles of Responsible Investing (PRI) (2) SASB standards are incremental for us. (3) We don't have a formal definition in the fund, but I would say SDGs from the UN are the criteria we are focusing on and would define as having a positive impact. For us SRI means investing only in companies that will have a positive impact on society and the environment in the future. (4) We do not have a very precise definition in place. Our core criteria are we want to improve the building environment. Being more data driven to save energy and work more efficient in the construction and real estate industry. (5) Every investment that is measurable in the long term that has a positive impact on a ESG criteria and has an influence on at least one of the SDGs from the UN. (6) Identifying the key risks and opportunities associated with ESG factors. (7) For me this is a very broad term, but it's and development to make the financial industry more aware of sustainability in all aspects from saving the environment to equality. (8) We have no policy or definition, but I hope and believe that venture capital investors in general invest ethically and responsible.

	Definition of ESG	**How would you define ESG investment criteria?** (1) We mainly follow SDGs here. Everything that has a positive impact on one of them and has the same monetary return. We have here a positive screening approach in place. (2) The ESG criteria in place are derived from PRI and the UN to make sure they are measurable. (3) Many start-ups proactively cover them in their pitch decks. Here we do not have any definition, but it covers all challenges we are facing right now on environment, governance and social values. We are specifically focusing on diversity and environmental impact, not really on GovTech or regulations, otherwise they are not measurable for us. (4) We use the framework form UN - PRI. 1/3 of the fund invests in ESG criteria and companies who have ESG criteria in place and are keen on measuring non-financial data. Looking at pollution levels at construction sites and how to reduce them. (5) We do not have any ESG criteria defined, but everything that has an impact on society and the environment. We are measuring for example how diverse the teams are. (6) ESG is an investment approach that integrates non-financial considerations into the investment decision and portfolio management. It incorporates climate, social and governmental relevant data to current financial KPIs measured to evaluate the performance of investments. (7) We do not use a common framework or definition. Here it very much depends on the partner and team lead. I think even in the fund everyone would define it differently, but we all have a common understanding that the ecological impact matters and we actively invest in that industry as the monetary returns may be huge. (8) We do not rely on formal and structured investment process as we invest based on very strong gut feeling. Investments are very often an outcome of discussion in the investment committee and general perceptions of market trends, especially in Early-Stage investments. Now we have the challenge to add an extra layer that is non-financial, therefore broader and looser and very difficult to measure in companies who are commonly pre-product.

	Differentiation to other investments a venture capital fund typically conducts	**What investment fields would you classify as SRI?** (1) SRI can be in every industry and has no limits in the VC industry. It can be software, hardware, SaaS business model or a marketplace. Many fields can have a positive impact. For me the most important things are CleanTech and HealthTech. One of the SDGs needs to be actively tackled. (2) We primarily focus on the future of money, to make financial services accessible to everyone and InsurTech as well. (3) For me finance plays an integral role. FinTechs that give people and areas access to financial services that are in need of it and were left out by typical financial models and banking regulations. Future of health tech that makes treatments more accessible and of course cleantech and everything that has a positive impact on our planet. Like waste management and circular economy. Another very important thing is access to education. But I have to say this can be very broad and could be anything: fighting sugar, transportation etc. (4) For us ProptTech is the main focus as such it can be in the intersection of cleantech and real estate. Everything that saves energy and reduces pollution. We actively look at the SDGs. (5) DeepTech: Data privacy and protection is a huge topic for us, but as well as making financial solutions available to parts of the society that is normally excluded from it as well as CleanTech, AgriTech, HealthTech. (6) SRI and ESG criteria are important in every space a VC invest in. (7) CleanTech, Digital Health and EdTech are industries that come to my mind. (8) Energy Management in Industry, Saving the environment with green investments and CleanTech or telemedicine services and HealthTech. Important things that are mentioned by the UN. (9) Everything that saves the environment and is green, PropTech to save energy and have less pollution on constriction sights for example. (10) We like to invest in DeepTech and we always have an eye on data security and privacy. Furthermore, CleanTech and Energy Management are an incremental aspect for sure.

		Do you invest in these industries only because of potentially higher returns? (1) Not only, but this is one important aspect. We invest in them as we think it is important for the future and will be required by LPs. (2) To be honest we have integrated because it is required from our LPs. (3) I would say we are very opportunistic, and we invest in all industries where we see financial potentials. It is a great side effect to see that more money is flowing into industries that want to have a positive impact and we play an integral role here too in financing them. (4) We do not invest like an impact fund as we expect VC returns, but we do believe there are companies who are creating impact and have significant returns and we are actively looking for them. (5) I truly believe in some years it will be a condition for investment of our LPs. We need to implement it to be not reactive to it, but already have all measure in place in the near future. (6) No, we also think we have an important role to play as a VC and to back founders how want to solve societies most pressing challenges and these markets have impressive growth rates. (6) We think impact funds have the same returns as classical VCs and will perform even better in the next years. This is the industry were the money will flow in the future. (7) VCs are very opportunistic as such they jump on the trend of sustainability as they believe an investment in that space will return their fund. (8) The market of CleanTech and sustainability is growing fast, and this is way we are actively looking into them. We do not invest like an impact investment fund in terms of returns. But I think start-ups in these industries can be a fund returned as much as all other investments.

Exhibit 14 - ESG integration in investment process and portfolio management

Does your fund have any ESG investment criteria in place?	**Current investment process and portfolio management**	**Does your company have any other measurable intentions in place that are non-financial such as positive social or environmental impact?** (1) We have a **negative screening** approach to make sure that the founders we invest in have the right value proposition and the other aspect we look into is the team building. **Diversification** is very important, and we are actively measuring it. **We do not of a formal policy** in place. But we do not work with companies who have a negative impact on any ESG criteria. We are not working on a definition. (2) We **have two non-financial KPIs** in place; we are measuring the carbon-footprint of startup and their hiring policy. We realized that when we started investing is that we only invested in male teams and we didn't back one single female founder. We had to act fast as we realized that our network and our deal flow process was in some way excluding female entrepreneurs, thus we implemented a **positive screening approach**. It is not a problem of the decision making as we always considered more diverse teams as better, but it was a deal flow generating problem that's why active integration of ESG criteria is so important as it changes the way of how the entire organization is working and thus investing. (3) We have criteria's such as **negative screening**, but most of it is **not formalized**, but we are **currently working on very clear guidelines** on all funds. We are going through the process of applying for B Corp and it means a lot to us to act ethically and do the right. We use SASB and we want to use it for our risk measurement to align it with our investment process, most of them fit into a VCs portfolio. (4) We have a working group that is **currently trying to elaborate investment criteria's** especially in the green tech space to get an understanding of the opportunities we might have in that space. The intentions in place on the **negative side and exclusion of investments is formalized**, however when it comes to measuring the positive impact it very much depended on the partner and team who drives the deal. (5) We have **negative screening** per definition as we exclude many industry areas. We are **actively looking for companies** who tackle very specific problems: Carbon Footprint in the

		construction industry, cement production produces a lot of CO[2] - we want to tackle that, energy consumption and how we can reduce it (smart home, etc.). (6) Yes, we have **ESG criteria in our investment memo** and we discuss ESG at every investment decision we make and in general it is part of our culture. (7) We only invest in companies where we see a **clear alignment between revenue and impact**, and this could social or environmental impact. We are measuring and monitoring this impact over the time. (8) Our primary goal is to return funds to our LPs and our general perception is that opportunities within the SRI space and the integration of ESG criteria can lead to the same returns as we are having now. For us it is on the one hand very natural to look into that space because VCs always want to catch the wave of new opportunities and trends in the market, on the other hand **we think it is not a necessity to have very formal investment criteria** to invest in that space. (9) We have formulized ESG criteria's in place. We are discussing it at every stage of the investment process in the same way as we discuss financials, growth rates, market size and CAC/CLTV and many more. (10) Yes, currently there is a negative screening approach, and some industries are excluded. Nothing is formulized and defined, and we are not discussing it. **How are you integrating ESG investment criteria into your investment process?** (1) We try to actively move ESG criteria at the very first part of the funnel, namely the deal flow generation to make sure to attract diverse teams. Furthermore, we have several tools in place after we invested in the start-up and mainly work on teambuilding to align our culture and values. (2) Negative screening approach. Big element at the very first step of the investment process, there is exclusion list from the IC committee. We have a risk matrix as well: Diversity, supply chains and we look at it from a people/planet perspective. We do consider environmental aspects of the company and we challenge companies to integrate them. We are now working together with the carbon trust. Requirement of our investment to analyse each of the companies and their carbon emissions.

		(3) We have a negative screening approach. Our LP agreements define that we are not allowed to invest in gambling, weapons and pornography. We have a positive screening approach when it comes to diverse teams. Furthermore, we have a cooperation with female founders' networks and we proactively measure the diversity of the teams we invest in and try to find a balance in the team composition. (4) Negative screening, positive screening approach implemented. We exclude investments in gambling, weapons and sexual content and actively look for start-ups that tackle environmental issues. (5) It is part of our screening as we have negative screening and exclude gambling, defence, sales to military, pornography, oil industry and everything that is harming the environment. This is something we do not need to discuss in our team as we have a common understanding of how we see the future and how our portfolio should look like. We have more discussions in the DD process when it comes to positive screening to identify what trends we see in the market and how we want to actively shape our portfolio. (6) Firm consciousness is essential, we have it truly integrated in our culture. ESG must be deeply integrated into the corporate culture so that all essential components are not only integrated into the investment process but also become part of portfolio management throughout the company and the fund serves as a role model for all employees and start-ups. Only in such a way can ESG not only be applied, but also lived and help to facilitate the transition to a sustainable economy and financial sector. Shapes and bonds people within the fund. (7) In every step from Screening to DD and in the term sheet. We have financial and non-financial goals integrated and when start-ups do not meet them, we don't follow on for example. Most important thing is for us that we lead or co-lead the round and the on-boarding session afterwards. It is crucial that interests are aligned, and we can help the start-up to measure the right and material non-financial KPIs. (8) We have a negative and positive screening approach. Somehow, we also use active ownership if the fund moves into a direction that is not aligned with our values, we put pressure on them and will not follow-on if certain targets are not met.

		In which parts of the investment process is it of greatest importance? (Screening, DD, Term sheet, etc.) (1) Mostly screening and DD. (2) At the very beginning and after the investment. Term sheet: the have to have a diversity policy in place, an anti-harassment policy, whistle blow policy, there are conditions to our very first investment. We have a portfolio talent team who are focusing on the diversity aspects in order to upscale them. Everything that goes beyond this is not implemented but will be done for example with the carbon trust as mentioned. (3) Mostly at the Screening and DD, we do not have anything in the term sheet. (3) We do not have any ESG criteria formalized, besides the exclusion of industries. The only part in the investment process where we have them integrated is in the screening and partially in the DD. After the investment we are not measuring non-financial values. However, I expect that this will become more formal in the future and we will have to report ESG criteria to our LPs as well. When we take the investment decision ESG criteria are not the crucial factor. (4) Deal flow generation and Screening process and in the DD before we decide if we want to invest or not. (5) All of them, but not term sheet. (6) We only invest in start-ups where we think impact can be achieved. This is mainly measured by SDG goals. We don’t have specific ESGs we are focusing on, but already in the funding and before the first call we measure if we think that impact can be achieved. All parts are essential, and we try to understand if the founder and us see the same impact potential and have the same vision. Most important thing is that the interests are aligned. In the investment memorandum we have one section that is only related to impact and there we have to present to the team how we can measure the impact. Term sheet states the impact mission and has to be integrated into the articles of association, but KPIs are not defined.

		How do you integrate the mentioned criteria into your portfolio management? (1) We use the tool Aplanet to measure the impact a start-up has on the planet and also to help them with the right tools to measure important KPIs. We want to raise awareness on this issue and to track this KPIs and will become a follow-on decision-making tool (2) Workshops and reporting in diversity (3) We do not have any measures in place after we invested. If the start-up moves into a critical direction we would definitely not follow on. But I have to say that has never happened before and I'm not sure if we would de-invest. (4) We only have it integrated into our investment process (5) We do not integrate ESG criteria in term sheets with start-ups, but we do active ownership and put pressure on start-ups if they develop in a direction that is not aligned with our investment memo as we have to report to LPs and take responsibility. (6) We measure SDGs, and we have an onboarding session that is crucial. Besides financial KPIs we are telling start-ups how we want to measure their impact and what non-financial data they should report to us. (impact session) Alignment is necessary to get in understanding about what data the start-up can actually measure over time, to understand what is feasible and material to track. We report this data to LPs and advisory report. We have maximum two impact matrix, and we define the goals of the next two years. **Do you advice start-ups in the integration of ESG criteria?** (1) For us the most important thing is aligning the interest with founders and we try to do that before the investment to make sure we can grow together, but after the investment more intensively. Yes, and it is our responsibility to do so. (2) We do a reporting, and we are collecting diversity data. We have all of that information of our portfolio and measure if it is improving. (3) Not at all and I think we do not really have the know-how for this. We are a platform VC and help start-ups with various things. Teambuilding with our HR unit, Marketing with our growth hackers, and the fund managers with everything regarding fundraising and US expansion. However, helping start-ups with measuring ESG is not one of our strengths yet. (4) No, we do not advise them on how to measure non-financial KPIs.

		(5) We more keep an eye on our portfolio and of they are acting responsible, but at this early stage we do not stress them to have ESG in place, but their company culture and founder perspective on ESG is important to us. (6) Yes, especially in our on-boarding session as mentioned above. (7) We measure SDGs, and we have an onboarding session that is crucial. Besides financial KPIs we are telling start-ups how we want to measure their impact and what non-financial data they should report to us. (impact session) Alignment is necessary to get in understanding about what data the start-up can actually measure over time, to understand what is feasible and material to track. We report this data to LPs and advisory report. We have maximum two impact matrix, and we define the goals of the next two years.

Exhibit 15 - Opportunities and Obstacles of ESG integration

	Listing of opportunities	**Do you think an ESG integration will lead to a better fund performance and less risk exposure?** (1) I don't think we will be less exposed to risk due to an ESG integration and our fund might perform as it does now, but it is too early to say as we do not have any data. In general, I believe that there are limited resources and expertise on ESG of VC fund managers. There is a lack of adequate ESG disclosure in the market and no commonly accepted framework for Venture Capital funds. (2) I think it offers many opportunities, as it changes the company culture and exposures us to less risky investments. It is only a positive aspect to have ESG criteria in place and **I don't think it should be the investment driver.** (3) It has to become an integral part of your analysis such as every other financial part and market research you conduct when you evaluate a start-up. We invest in Early-Stage start-ups, so we primarily look for founders who want to change the world for good and we want to help them with the right tools and money. We can guide them and only because they

Which opportunities do you see in integrating ESG criteria in the investment process?		don't have ESG criteria and place at the investment, or **they are not diverse enough doesn't mean we cannot actively help them to become more diverse.** This is the role a VC has to play, to be an advisor and guide you through the many challenges you are facing as a founder. (4) It will definitely lead to less risk exposure and if you do not measure ESG in the future and if you are not conscious about these issues your assets and returns are definitely at risk. (5) Personally, I **believe it will lead to higher returns as it is exposed to less risk and volatility** if the market and it is extraordinarily important as it prepares us and start-ups for the future. If the start-up understands ESG it a very early stage and grows with it and truly integrates it in their culture it will be less exposed at a certain stage where it gets even more relevant as well. (6) Yes, I truly believe this is correct. We have **the goal to achieve the same returns as VCs** are doing and we think that in the future our portfolio and our assets will be less exposed to risk that the one of VCs (7) Yes, we do. We believe that **considering ESG leads to less risk for the funds and our LP**, however LPs who already invested do not ask for non-financial criteria. At the same time, it links in very well with our objectives as a team. Our primary objective is to help pioneers change the world. On the other hand, ESG integration in our fund is a very challenging task. It is very hard to find a consistent way to do it and a framework that can be easily applied. Particularly given we invest in many various industries, B2C and B2B business. (8) We are a very small team, and we discuss every investment decision we make. We do not need ESG criteria for that as we all have the same investment approach. Additionally, I believe that it is too early to say that this can lead to higher returns at a VC fund. I think it is more relevant at growth funds or PE funds. (9) Our primary goal is to return funds to our LPs and we are generally thinking that opportunities within the SRI space and the integration of ESG criteria can lead to the same returns. For us it is on the one hand very natural to look into that space because we as a VC always want to catch the wave of new opportunities and trends in the market, on the other hand we think it is not a necessity to have very formal investment criteria to invest in that space. But yes, it would help if there would be a clear definition in the fund that everyone

		has the same understanding, and we build more awareness around ESG. One very important point is for example we realized that we tend to invest in serial entrepreneurs, and we are actively looking for them, we have a huge bias here in our investment decision. The problem is they are typically not diverse, male and white and most of them have the same background coming from major start-up hubs. Of course, they can also tackle very important topics and fit into our ESG criteria, but I'm very concerned about this and with a more formalized investment approach we can limit this bias. **Are you reporting ESG performance of your portfolio to LPs?** (1) No, but primarily due to the fact that our investors are mostly individuals and small family offices. (2) We only measure financial KPIs, which we report to our LPs (3) Yes, we report financial and non-financial criteria. W report all kind of ESG criteria to our LPs. It is very much depended on the industry we are investing in and materiality matters a lot to our LPs. So basically, we adapt the reporting, and nothing is standardized. (4) Yes, we report financial and non-financial criteria. W report all kind of ESG criteria to our LPs. It is very much depended on the industry we are investing in and materiality matters a lot to our LPs. So basically, we adapt the reporting, and nothing is standardized. (5) No, we only report financial data and achievements of certain milestones of our start-ups in our investors report. (6) We report this data to LPs and advisory report. We have maximum two impact matrix, and we define the goals of the next two years. (7) Not yet, but as we will raise more funds, we want to report ESG criteria to all LPs and to make sure that we will be not on the back foot in the nearer future. (8) No this is no requirement and we only report quarterly the finical performance of our start-ups and our fund to our LPs. We highlight achievements of our portfolio that can be non-financial. But we don't have any ESG reporting in place that would be consistent over all industries and start-ups. (9) No, we do not report it.

		Do you think ESG integrating into your investment process would lead to easier fundraising and would be an important signalling to investors? (1) I can imagine that it will be a requisite in the future and might be important when we raise more funds and want to target bigger LPs. (2) Pressure comes mostly from regulations that's why our LPs (as they are mostly large firms) require that we have ESG in place and are actively looking for start-ups who tackle these challenges. (3) We built the fund with ESG factors as we think that they are important to our company culture and the industry as a whole. We successfully raised 3 funds so this might be an indicator yes and maybe more important in the future. (4) I think LPs and society as whole is becoming more aware of the importance of measuring ESG and to not only focus on financial data but also on the impact a company has on its environment as a whole. In the future there will be no funds raised that do not measure non-financial data. (5) Yes, and at the same time it links in very well with our objectives as a team. Our primary objective is to help pioneers change the world. On the other hand, ESG integration in our fund is a very challenging task. It is very hard to find a consistent way to do it and a framework that can be easily applied. (6) Maybe not only fundraising, as more and more start-ups are integrating what ESG criteria they are tackling they want to have an investor on board that gained credibility in this field too. Founders, investors and society as whole is getting more aware of it and if you do not understand it you might be left out in the dark. **Do you think that venture capital would be important in the transition to a more sustainable economic and financial system?** (1) Yes, as we back companies that are the future, and they will definitely have an influence on us and society. (2) Yes, currently a massive shift is happening in our industry and we want to collect relevant data to be able to analyse our non-financial impact we are having, and this is also required by our LPs and I have the opinion that VCs are looking for unicorns with massive growth rates. In the future this companies will have a tremendous influence on the

		environment and therefore we have to invest wisely and ethically otherwise we waste the change we have to save our planet. If you choose the right horses this companies will be big, and we have the responsibility to invest in the right companies. (3) It plays an integral role in backing founders who want to shape our society. Making loans accessibly to underserved parts of our society, taking care of data protection and usage that might be unethical, developing telemedicine services to protect people who are in need of it. I truly believe VC and start-ups are needed to find the right solutions and to develop solutions we need as fast as possible to save our planet. And VC is the only financial intermediary who backs their visions. (4) Yes, we back founders and potentially huge companies, and we need to make sure to pick the right ones. (5) We back the companies of the future; we want to find the next unicorn. A significant amount of money will flow into new trends and industries that will be incremental for the transition of the financial system and all industries that are in the transition to a more sustainable and economical world. (6) Our industry in growing fast and we can drive this process. But comparing us to whole financial market we are still a tiny bit. However, it can have an important trickle up effect and it can push dominant cooperation's as they face competition from start-ups and need to become more sustainable.

Which risks do you see in integrating ESG criteria in the investment process?	**Listing of obstacles**	**Do you think only financial performance matters and LPs would not be interested in non-financial ESG criteria?** (1) Definitely not. Our LPs do not require them, but I think it is a social trend and most people demand it nowadays as they are very much aware of the environmental challenges we are facing. And the future money owners will not invest in companies anymore that do not have the intention to have a positive impact. (2) I think that LPs will increasingly demand ESG reporting and it will become a standard in all financial industries.

		(3) Entrepreneurs are primarily driven by their vision and not by financial incentives. VCs play an integral role in funding them, but I think they do not need to integrate ESG criteria into their investment hypothesis or even fund policy. It comes more from the desire to find the best entrepreneurs who build something huge in growing markets. (4) No and I have the feeling more VCs are getting aware of the importance of impact investing and integration of ESG. My opinion could be biased as we are actively looking for impact start-ups, but the funds who want to co-invest with us are very conscious about it and they are also well known in the VC scene. I think they see the potential these start-ups have and that they can achieve the same growth rates. (5) No, I disagree with that due to all opportunities mentioned above. (6) As said, I see a lot of potential and our LPs do not demand it right now as we are not an impact fund. They want to see financial returns, but I think in the future when we raise the next fund this might be of importance. (7) Broadly funds are very optimistic about areas where they can return value for LPs and investors. Any tech trend is driven by entrepreneur's desire solve problems such as sustainability in all of its various forms is the most concerning problem. **Are you afraid that other VC funds who do not exclude potential investment opportunities have a better performance?** (1) No and I believe most funds have to shift into that direction, because we all understand that we have an important role to play in helping to solve society's challenges. Start-ups want to change the status quo and VCs back them. (2) The contrary we believe we can have a better performance and it doesn't limit us in any way. I believe it is more encouraging than limiting. (3) No, some criteria might limit us. But given the investment we make right now and most of them are already out there to do good. We have a portfolio with people who want to change the world for the better and I do not see any issues arising. We invest in companies that act responsible and sustainable. It might limit us if we look at follow on, but it will also help us to get less exposed to risk.

		(4) I do understand that VCs are afraid to integrate ESG as they might have the feeling, they are limiting themselves, but I only think it shifts the market and will create more understanding on the importance of measuring ESG criteria. (5) In the short run this could happen yes. You exclude serial entrepreneurs, and it would be easier to quickly raise more funds with them and have better returns. However, I believe that backing more diverse group of founders will definitely pay off in the future. And this is just one example. (6) No, I see great opportunities and for me this is more of having the right culture and tools in place to integrate ESG in your decision making and investment process. But as said most important thing is the deal generation itself. **Do you think you will not be able to integrate ESG into your investment process as you do not have the know-how?** (1) I think the tools on how to measure impact are not missing. The issue I see is more that fund managers are afraid of collecting ESG data and use them as a decision-making tool as it might go against what they want to decide and invest in. I see this problem with many funds who argue that VC investments are based on gut feelings and betting on the right horse. But you need to data that tells you how to start acting. (2) We are already doing it. I think lot of VCs know how to learn on the go. They have to change their perception of the market all the time, they always have to understand different business models, markets, problems to solve. So, I very much believe they have the capacity in understanding how to integrate ESG in their fund and how to invest responsible. However as said a common ground, benchmark, and standard would be very useful. ESG is so big and vast, but VCs can become an expert in a field after 6 months and all of the sudden they have a dedicated bucket to invest in this field. They can move fast, and I believe VCs will become aware of this and do not need an expert. (3) The managing partner and person who is more in contact with LPs should have an extensive ESG knowledge. GPs and the investment team of course need to be knowledgeable too, but I believe that is nothing you cannot learn on the go when it is part of your company culture. I think when you introduce it in your company, and it changes

		your investment process entirely training might be needed to change the habits of the firm and especially you need someone who integrates ESG in your investment process, memo and reporting. Routines are essential here! Talk about it frequently, it goes along with so many things. Diversity for example. Pipeline statistics such as female founders, mixed founders, race, do we exclude someone with our branding and communication etc. We need to be aware of everything we are doing. (4) Not relevant. I think VCs don't do it as there is not a standard approach on how to measure impact and maybe starting from scratch is not feasible for most VCs as they don't see enough potential in doing that. Most VCs follow kind of ESG investment policy, but they haven't written it down as a mandate because then they get the feeling to limit themselves. Might be afraid of tightening the funnel. (5) We have troubles in finding the right framework to have a consistent policy in place over all funds. Currently we are at a point where we would need extra resources to bring our ESG policy to life and the next level. (6) I think we need a central person as we have over 90 portfolio companies. We need someone who can drive it forward and drive engagement in the team that everyone is aware of it. Board members monitor it themselves and think about ESG criteria, but not in a formalized way. They are reporting also non-financial KPIs but very unformalized and not like the we are reporting financial data. (7) The greatest challenge we are facing is that we gave many different focus funds with different LPs and reporting requirements. Due to the fund structure, we might get some issues when we want to integrate ESG in our flag ship funds who co-invests with all funds and this needs to set the base layer in some way. Especially if we need to identify which ESG criteria are material. For example, circular economy and their impact was more important for the marketplace team and CO^2 footprint for the industry team. This adds complexity but is definitely solvable if we dig more into it.

Exhibit 16 - Potential of ESG in Venture Capital and future outlook

How do you estimate the potential of ESG in VC in the now and in the future?	**Listing opportunities and challenges in the future** **Status quo**	**What measures are necessary to ensure this investment area can grow in the future?** (1) That VCs become more data driven in general. That they make sure to integrate all kind of data into their investment decision process. This is more relevant for Early-Stage VCs and to use tools to actively measure ESG and integrate it in the culture. (2) Standard measurement for impact KPIs for start-ups and VCs would be necessary as most do not know where to start. Concrete global regulations and guidelines are needed to measure the same data across industries. (3) I think VCs in general need to be more aware of how to better formalize their investment process to get away of tacit knowledge of partners within the fund and rely more on data, financial and non-financial. (4) We should not be afraid of the integration of ESG into the fund policy as it will only reduce potential bias and ensure sustainable growth in the long run. The EU Taxonomy Regulation is an important starting point, and we need to start acting to be well positioned for the future. (5) I think regulations and clearer standards will be helpful. Pressure will come from LPs, but the correct integration of funds is necessary otherwise they will find a way around it. (6) The EU Taxonomy Regulation is already an important step in the right direction. More Early-Stage VCs in Europe should work together to set the standard for ESG integration in our industry. (7) It might be true that some funds need pressure from LPs, such as EIF to integrate it into their investment process and portfolio management. (8) If some funds with a significant amount of assets under management take the lead here, I'm sure many others will follow and use a similar framework as they do. **What is the greatest added value of ESG integration?** (1) You raise awareness across all investment teams, and you gain credibility. It opens the ideas to the non-obvious things and criteria you might have left out in the past. As later stage VCs already have more formal financial and non-financial investment criteria, it will

		also help us to find follow-on investors if we already have ESG criteria integrated in our fund policy and help our portfolio companies to measure non-financial KPIs. (2) Creating impact and a balance to solve society's most pressing challenges. It can't be that we only care about financial returns. (3) Transparency and a better and more diverse deal flow. Don't limit yourself and be aware of things you are not doing right. (4) For a long period of time VCs had the perception that impact investing can't deliver the same financial returns as traditional finance. But I think that considerations has changed. (5) Shaping the industry to good and being aware of very important topics along the investment process. The most important thing is awareness and ESG integration will help with the transformation to more sustainable businesses. **Assessment of the current market** (1) I think that more and more VCs are increasingly looking into that space and it is a huge opportunity for break out start-up cases. Furthermore, VC funds have a rather young work force, so in many organizations the pressure comes within the organization that employees want to have a positive impact with their start-ups they are screening and investing in. (2) There are so many different frameworks and for us coming out of cold this was very overwhelming and it is difficult to understand what the is right thing to apply for our business. VCs would need a centralized framework to implement it right. Now we are more looking at funds who have impact measure in place to understand if we can integrate a similar approach. (3) We are at the very beginning of an important turnaround and investments in impact driven business will be the future. This is where the money will flow, not only to start-ups but also VC firms. (5) VCs need to measure the data to push more entrepreneurs that financial growth and sales growth, CAC or CLTV are not they only factors material. Better standards will lead to better deal flow and better companies. We need to start acting now. (6) Growing very fast and I realize that more money is being shifted into impact investments. More and more VCs are co-investing with us and want to have a stake in impact start-ups. It is becoming mainstream.

		LPs and consumers are pushing for impact measurements and I feel that investments will shift towards impact as this is an area that will have even larger returns in the future. Most of our investments are together with Seedcamp and they don’t have a mandate in impact. (7) There will be new regulations in the UK that need to be applied. TCFD is about the carbon side of things which will impact us in a number of years, and we need to start ensuring to measure carbon footprint. We are excited how LPs will measure the ESG approach of different (8) More pressure from LPs and the start-up side would drive the process. Capital is very cheap right now and it has become a commodity. Start-ups require funds who are aware of SRI and are credible in this field. The best founders can choose from all funds they want to work with. The integration of ESG criteria into the investment process especially in a more formalized and binding way could lead to more credibility and to more investments in start-ups who have a huge impact on the SDGs. I believe that we are now at an important point where we have to decide in which direction. (9) Being a first mover is always difficult, but it is important to be the one otherers will take you as a benchmark. So big funds should take responsibility and start moving. I can see that there is a lot of pressure in the industry now in terms of investing more diverse, measuring female founders in your portfolio and getting out the bias of investing in white man who all have the same education and background. I believe this needs to change and ESG will become important that we make this change happen.