Impact Investing in the Residential Real Estate Sector

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MASTER THESIS

Impact Investing in the Residential Real Estate Sector
Accounting for impact beyond the walls of the home

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Abstract

The investing industry has historically been built around the sole purpose to bring superior financial returns to investors. Due to the rising concern towards global social and environmental issues, investments promoting sustainable development have grown popular. Centring sustainable investments debate is the strategy impact investing. The strategy originates from more traditional ethical investment philosophies and is today the most prominent and promising approach for creating long term value. Impact investing intends to create positive social and/or environmental effects that benefit people and planet alongside generating a financial return.

Real estate make up essential infrastructure for everyday life. The built environment significantly affects people's lives, whether it is at home or work. Furthermore, the industry contributes to several environmental effects, both from property development and operational activities. Thus, the real estate sector provides an exciting opportunity for impact investors to significantly contribute to a sustainable future. Therefore, the purpose of the thesis is to explain impact investing and identify relevant measures to apply when investing in real estate - focusing on the Swedish residential sector.

The thesis is based on qualitative research with a triangulation methodology, consisting of a thorough literature review coupled with expert interviews concerning both impact investing and sustainability within residential real estate. The research has been multifaceted, consisting of exploratory, descriptive and explanatory components. The exploratory part included understanding impact investing, while the descriptive part explained the strategy. Lastly, the explanatory part determined causal relationships between real estate operations and impact creation.

The thesis concludes that impact investing relies heavily on dedication and intention to contribute to positive social/and or environmental effects in the setting of investing. The strategy requires a comprehensive analysis to identify and target specific problems where positive impact should be inflicted. Additionally, investors must manage impact performance and report transparently on objectives, efforts and the related outcomes. Applying the impact investment strategy to residential real estate resulted in pinpointing target outcomes, methods of measuring impact and appropriate reporting approaches.

Keywords: Impact investing, Sustainable investing, Sustainability, Sustainability accounting, Residential real estate, Real estate management

Sammanfattning

Historiskt har investeringsindustrin enbart varit fokuserad på skapandet av hög finansiell avkastning till investerare. På grund av ökad medvetenhet kring globala sociala och miljömässiga utmaningar har investeringar som underbygger hållbar utveckling växt i popularitet. Diskussionen kring hållbara investeringar har riktat stort fokus mot impact investering. Strategin härstammar från traditionellt etiska investeringsfilosofier och är idag den mest framstående och lovande approachen för att skapa långsiktigt värde. Impact investering avser att bidra till positiva sociala och/eller miljömässiga effekter som gynnar människor och planet, samtidigt som den avser att skapa finansiell avkastning.

Fastigheter utgör livsviktig infrastruktur för det vardagliga livet. Den byggda miljön påverkar människors liv avsevärt, oavsett om det är hemma eller på jobbet. Industrin bidrar även till flertalet miljömässiga effekter, både under fastighetsutveckling och från den löpande verksamheten. Således är fastighetssektorn full av intressanta möjligheter för impact investerare att väsentligt bidra till en hållbar framtid. Syftet med uppsatsen är därför att förklara impact investering och identifiera relevanta åtgärder att tillämpa vid sådan investeringsverksamhet riktad mot fastigheter - med fokus på den svenska bostadsmarknaden.

Uppsatsen baseras på kvalitativ forskning med en trianguleringsmetodik som består av en grundlig litteraturstudie och expertintervjuer från domänerna impact investering och hållbarhet inom fastighetssektorn. Studien är mångfacetterad och består av en explorativ, deskriptiv och förklarande del. Den explorativa delen innefattar förståelse för impact investering medan the deskriptiva delen förklarar strategin. Slutligen fastställer den explorativa delen kausala samband mellan fastighetsbolags verksamheter och impact skapande.

Uppsatsen drar slutsatsen att impact investering förlitar sig på engagemang och avsiktlighet att bidra till positiva sociala och/eller miljömässiga effekter från investerare. Strategin kräver omfattande analys för att identifiera och adressera specifika problem där positiv impact ska uppnås. Vidare måste investerare följa och utveckla dess impact samt vara transparenta i rapportering av de mål som satts, handlingar som vidtagits och effekten av dessa. Genom att undersöka bostadsmarknaden ur ett impact investeringsperspektiv identifierades önskvärda effekter, metoder för att mäta impact och lämpliga rapporteringssätt.

Nyckelord: Impact investering, hållbara investeringar, hållbarhet, hållbarhetsredovisning, bostäder, fastighetsförvaltning

Preface

This master thesis examines impact investing through two areas of interest - impact investing as an investment strategy/philosophy and impact investing in the Swedish residential real estate sector. Particular focus is on determining relevant and measurable outcomes that contribute to positive social or environmental effect. Identifying what efforts can contribute to positive social or environmental effect will be the issue of study for this thesis.

The thesis has been conducted during the spring semester of 2020 and constitutes 30 ECTS, finalising five years of study and 300 ECTS, and has been completed in collaboration with Lund University's Faculty of Engineering and Brunswick.

We want to thank Johan Pettersson and Willem De Geer at Brunswick, for inviting us to conduct this thesis and providing guidance along the way. We are also thankful for additional personnel of Brunswick who have been very helpful. Lastly, we want to extend our immense gratitude to our supervisor at the Faculty of Engineering, Ingela Elofsson, who tirelessly has shown great support and advised us during the entirety of the project.

Finally, we want to express gratitude towards respondents of the empirical collection. All interviewees have been extremely helpful, providing us with essential information from each respondent’s respective area of expertise.

Stockholm, June 2020
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List of abbreviations

CEO	Chief Executive Officer
ESG	Environmental, Social and Governance
GIIN	Global Impact Investor Network
IMP	Impact Management Project
IRS	Increasing Residential Stability
KPI	Key Performance Indicator
SASB	Sustainability Accounting Standards Board
SDG	Sustainable Development Goals
UN	United Nations
Y-o-Y	Year-on-Year

List of definitions

Term	*Definition*
Baby boomers	People born 1945-1964 (Akhtar, Dessard, Seeman, Yang, 2019; Goldman Sachs Global Investment Research, 2019).
Broken windows theory	A criminological theory suggesting that visible signs of crime and civil disorder create an environment which encourages further disordered behaviour (McKee, 2018). In contrast, lack of broken windows should encourage a caring neighbourhood.
Client retention rate	Ratio of the number of tenants retained from the start to the end of the reporting period.
Commercial real estate	Areas which provide space for companies, businesses, organisations and such to house their operations (Amadeo, 2020).
Fixed income	Types of investment securities such as a bond that pay investors the same amount of interest or dividend payments every month, year, etc. (Cambridge Dictionary, 2020a).
Green buildings	Properties, buildings and real estate that are developed and/or operated in an environmentally friendly manner - commonly through efficient energy or water management
Green financing	Green financing includes financing methods provided to companies and projects with an agenda to improve environmental standards. The financing often comes with sustainability and or environmental anchored demand. The contracts may include break clauses which are of environmental character (Landberg, Massa, Pogkas, 2019).
Green lease contracts	Rental contracts which follow a structure including environmental clauses. The contracts often help certify that buildings, areas and companies are sustainable and may enable authorisation for other green agreements (Fastighetsägarna, 2020).
Greenwashing	Make people believe your company is doing more to protect the environment than it really is (Cambridge Dictionary, 2020b).
Miljonprogrammet	A programme launched by the Swedish government to build 1 million apartments in 10 years starting 1965 (Stockholmskällan, 2020).

Millennials	People born 1980-2000 (Akhtar, Dessard, Seeman, Yang, 2019; Goldman Sachs Global Investment Research, 2019).
Private equity	An alternative investment class of investments and capital allocated to private companies. Funds and investors that engage directly into private companies (Amadeo, 2018).
Residential real estate	Areas developed with the intention to house people (Amadeo, 2020).
Storytelling	The art of telling a story. Emphasises the ability to engage the audience and to be figurative.
Success paradox	People who live in an underprivileged area and manage to obtain occupation tend to move. The emigration of successful individuals counteracts the underprivileged on becoming more successful and less underprivileged - the average salary is not increased. Thus, the success of a person in a neighbourhood is the misfortune for the neighbourhood - the paradox. The term is used in urban development (Huddinge Kommun, 2016).
Venture capital	Investing in companies that are in their early stages. Considered the riskiest investment an investor can make (Deeb, 2016)

1. Introduction

1.1 Background

1.1.1 Sustainability and Global Challenges

In an age of rising temperatures, extreme weather, rising sea levels, and increasing ocean heat and acidification, debates regarding climate change and human activities that impact our planet, are louder than ever. In 2015, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) signed the Paris Agreement and undertook the common objective to keep global temperature below a threshold of 1.5-2.0 degrees Celsius above preindustrial levels. Unfortunately, the world remains on course to exceed that threshold with averages for the past five years, 2015 to 2019, and the past ten years, 2010 to 2019, to almost certainly be the warmest five years and decade ever recorded, respectively (World Meteorological Organization [WMO], 2019).

In addition to the concerns regarding climate change, social and gender inequalities, human well-being, regional and cross-continental conflicts, social insecurities and poverty, are further attracting global awareness. In many areas of the world, people still do not have access to quality essential services such as education, health care, water, food, housing, and protection. Global hunger is once again on the rise from a decade of steady decline (WMO, 2019). Social, cultural and economic conflicts are still causing violent outbreaks all over the world. Inequalities between genders still have not changed for the better in many parts of the world. Child labour and poor working conditions are still a global issue, and due to unsustainable consumption and use of plastics, at least 8 million tons of plastic still ends up in our oceans every year, affecting both the marine ecosystem as well as us humans (International Labour Office, 2019).

Stakeholders are now addressing these issues more frequently and with a far more alarming tone. Maria Fernanda Espinosa Garcés, President of the United Nations General Assembly, stated in March 2019 that "We are the last generation that can prevent irreparable damage to our planet" and that we drastically need to change direction in the next 11 years. United Nations Secretary-General António Guterres, further stressed the issue; "We must address this global emergency with ambition and urgency", remarking the critical work and

improvement in sustainability development that needs to be made in the years to come (United Nations [UN], 2019a).

In order to create the change needed, the UN has mapped out critical areas in need of sustainable change: production and consumption of food and energy, securing water accessibility, city infrastructure and planning, and pollution (UN, 2019b). For change to happen, the UN stresses the role of governments, businesses, communities, societies, and individuals to work together and take action and responsibility (United Nations Development Programme, 2020).

1.1.2 Social, political, technological, legal and financial trends

With climate-related disasters affecting everyday life, such as wildfires and cyclones, now unfolding with considerable media attention, the public is getting more involved in the global discussion. Public concern is mirrored in, for example, the growing masses climate striking under the Swedish climate icon Greta Thunberg's direction on Friday's for Future events (Gould, 2019). Furthermore, companies can now feel social awareness - consumers are making more sustainability-based choices (Whelan, Kronthal-Sacco, 2019). In the years to come, companies will face growing pressure from decision-makers, investors, and societies, demanding that companies get serious about the environmental and social impact (Akhtar, Dessard, Seeman, Yang, 2019).

Battling these global issues while maintaining economic development and human well-being imposes considerable challenges for governments, businesses, global organisations and legislators all over the world. However, these stakeholders are the ones that can make a change happen. Governments and Intergovernmental organisations such as the United Nations, the World Health Organization, and Amnesty play a vital role in the effort to achieving global sustainable objectives. These organisations develop frameworks and guidelines as well as benchmarks, that support sustainable development. Among the most well-known global efforts in supporting sustainable development is the adoption of the Sustainable Development Goals (SDG), which was adopted by all members of the United Nations in 2015. The Sustainable Development Goals address challenges related to poverty, inequality, peace and justice, environmental degradation, and climate change. The Sustainable Development Goals consist of 17 global goals (UN, 2020).

Technological improvements and solutions will be critical in order to reach global objectives. Electricity and Heating, Transportation, Agriculture and Forestry, and Manufacturing and Construction are four of the most significant contributing sectors to climate change. Therefore, technological improvements and innovation within these industries will be of significant importance. Today, technological development and research within the fields of development and scaling of low carbon technologies, carbon capture solutions, biomass solutions, battery technology, and circular solutions are battling the problem. Furthermore, the development of artificial intelligence, blockchain technology, and the next generation of mobile networks, all have the potential to play vital roles in the shift towards sustainability (Brackley, Ledsham, York. 2020).

Implementation and enforcement of laws, regulatory frameworks, and other legislative reforms are other examples of solutions that can have a positive impact on the environment and societies. Prohibition of toxic and harmful chemicals, regulations of financial systems, the prohibition of the use of plastic bags and constraints on the use of fossil fuel are some examples of legislative actions taken to regulate harmful human activities. However, enforcing new laws can be difficult as propositions are often subject to various controversies, such as debates regarding costs, the necessity of a legislative resolution, and the effect of government involvement versus a self-regulating market (Environmental Science, 2020).

Since the financial crisis in 2008, the global economy has been on a path of growth with almost no significant setbacks (The World Bank, 2018), with global growth projected to rise from an estimated 2.9 per cent in 2019 to 3.3 per cent in 2020 (International Monetary Fund, 2020). However, much of the economic growth is attributable to unsustainable consumption, unsustainable product development, poor labour conditions and the usage of fossil fuels (Demaria, 2018). Following this development, the focus has shifted towards deploying capital into more sustainable projects (Akhtar, Dessard, Seeman, Yang. 2019). Stressing the shift for more sustainable investments, a group of scientists (representing a wide variety of academic backgrounds, including: sociology, economy, environmental engineering, sustainable development and more) suggested during the United Nations General Assembly, March 2019, that the UN could endorse a new sustainable investment label where investments in sustainable development should be encouraged and rewarded.

1.1.3 Investing for a better world

A rising shift towards sustainability-focused portfolios reflect the growing public concern regarding sustainability and tackling global challenges. Data shows that retail investors, especially Millennials and women, are increasingly engaging and demanding companies to declare any environmental or social related issues that are related to their investments. Furthermore, Millennials are up to twice as likely to purchase sustainable-proofed goods compared to the overall population. Wealth estimated up to $30 trillion is expected to change hands from baby boomers to Millennials in the coming 30 years. The shift in wealth has made investors realise that stakes are enormous and have begun to alter strategies to meet the shifting demand (Akhtar, Dessard, Seeman, Yang, 2019; Goldman Sachs Global Investment Research, 2019). Perhaps the most popular strategy currently emerging is impact investing.

Impact investing has no firm definition; however, the Global Steering Group for Impact Investing (GSG) describes it as:

"Impact investment optimizes risk, return and impact to benefit people and the planet. It does so by setting specific social and environmental objectives alongside financial ones and measuring their achievement." (Global Steering Group for Impact Investing [GSG], 2020).

The investment approach has grown from previous forms of ethical investing. Firstly came responsible investing, basically entailing avoiding harmful sectors such as weapons, tobacco, or similar. From responsible investing, sustainable investing grew. The next step entailed focusing investments towards companies incorporating ESG criteria, like water and energy efficiency or a toy manufacturer protecting fair labour conditions. However, these strategies have more of a "do no harm" approach, which changes with impact investing. Impact investing means having a measurable "do good"-approach alongside financial return— an active philosophy of creating tangible impact for the benefit of societies and the world at large. To define impact, GSG breaks it down to three key elements: it is measurable, it drives change at scale, and it adds up for everyone (GSG, 2020). However, it is essential to note and keep in mind that impact investing is still *investing* - financial return is central. The investing approach should not be mistaken for venture philanthropy, or any other funding-based approach to gaining positive impact, without any financial return objectives.

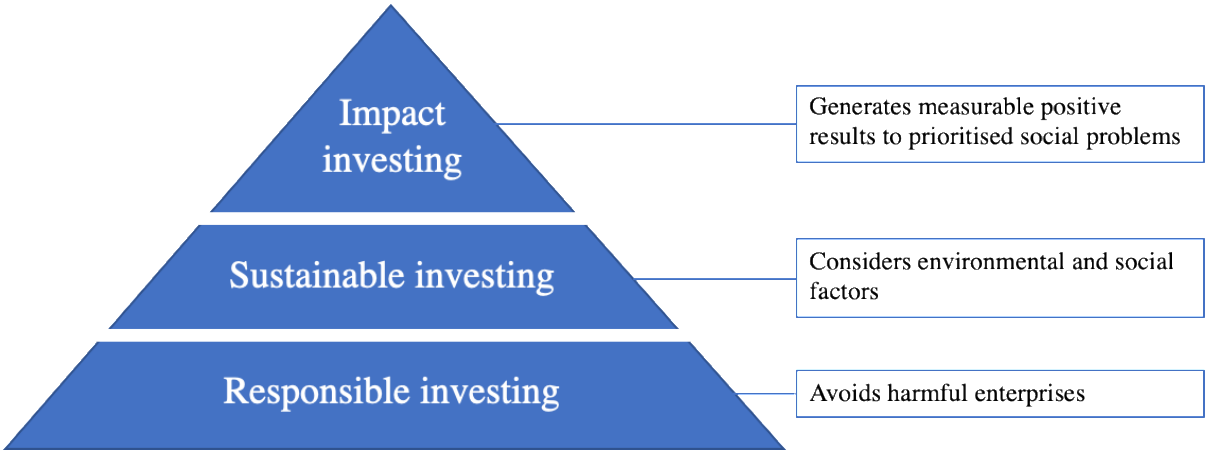

Figure 1. Ethical Investment Strategies (Swedish National Advisory Board for Impact Investing, 2020)

The impact-approach is engaging private companies and capital in contributing to a more sustainable world. Societies and people have a lot to gain from the outbreak of impact investing and its rising popularity. However, there are risks. Investors and professionals have discussed that "impact washing" is one of the significant risks (Stanford Graduate School of Business, 2019). Impact washing, common to greenwashing, entails companies wrapping their investments with an impact-apprehension, however with unclear effect. Reasons for impact washing could be a favourable public opinion and better access to capital. With the public opinion swaying towards green-thinking, an increase in demand for related investments has risen from institutions and other major sources of capital - often making it easier to fund impact investments (Landberg, Massa, Pogkas, 2019). Hence, the difficulty with impact investing is not having people supporting it or funding it - it is to ensure a tangible effect. Given the unique nature of an impact, no general framework can currently be applied, and all investments and impacts have to be assessed independently. Measurable and provable results are what make impact investing interesting - but also tricky.

1.2 Purpose

The purpose of the thesis is to (1) describe and explain impact investing and (2) identify relevant measures to apply when impact investing in the residential real estate sector.

1.2.1 Objectives

The project was carried out with regards to the following objectives within the residential real estate sector:

- Identify target social and environmental outcomes
- Identify methods for measuring impact
- Identify suitable KPIs that can be used for reporting standards

1.3 Delimitations

The project focuses solely on the residential sphere of the real estate sector, hence excluding areas such as commercial and industrial real estate. Furthermore, the project focuses on the Swedish market, which reflects underlying assumptions on market conditions and regulations that implicitly frame the research.

Brunswick Real Estate, a Swedish investor and lender in the real estate sector, will be the focal point of the case study.

1.4 Report Structure

1.4.1 Chapter 2 - Method

A complete description of the work process and method is presented. The chosen method and approach are discussed and evaluated through research strategy and project scope. Furthermore, method quality is discussed by looking at the method reliability, validity, generalisability, and objectivity.

1.4.2 Chapter 3 - Theory

A thorough description of impact investing is presented together with a detailed description of impact investing in the real estate sector. Thereafter, selected theories, concepts and frameworks for assessing, managing, and reporting impact as well as for developing impact strategies are presented. These are later used to conceptualise best practices for impact investors within the residential real estate sector.

1.4.3 Chapter 4 - Empirics

Empirical data gathered from interviews with professionals from the fields of impact investing and residential real estate is presented. The empirics are used to add an extra layer of depth through observations from working professionals in the field.

1.4.4 Chapter 5 - Analysis

Empirical results are compiled and discussed concerning the selected theories, concepts, and frameworks. Furthermore, theory and empirics are analysed as to how knowledge from both areas best can be used to answer the research questions.

1.4.5 Chapter 6 - Conclusion

Conclusions are presented. Eligibility and contribution of the research are discussed.

2. Method

2.1 Research Purpose

When conducting research, it is helpful to determine the purpose in order to categorise what kind of research should be conducted. The purpose can guide what methodology will be useful to reach the research objectives. Any given research can be categorised into four areas: exploratory, explanatory, descriptive and problem-solving (Höst et al., 2006). Exploratory research addresses issues such as "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2011). It is commonly used for investigating problems that are less or vaguely defined with no clear demonstrated cause and effect. On the other hand, when the research is about identifying and explaining causal relationships between variables, the research can be termed as explanatory. Descriptive research seeks to "to portray an accurate profile of persons, events or situations" (Robson, 2011). Lastly, problem-solving studies are common in the field of engineering and related studies. Furthermore, when conducting research, it is essential that the research, to some degree, will break new ground - the research should add to new insights or knowledge. There is no value creation in describing again what is already known - the research should explore, describe, explain or solve a problem in a new way. The purpose of the research should be clear and apparent from the research objectives. The most successful research questions are uncomplicated yet require thorough analysis which allows the researchers to anticipate the target outcome and map a distinct path in getting there (Badke, 2017).

Looping back to this particular thesis and its purpose; (1) describe and explain impact investing and (2) identify relevant measures to apply when impact investing in the residential real estate sector, several approaches are needed. To answer (1), both an exploratory and descriptive approach is needed. In order to describe and explain impact investing, the authors need to understand and assess the strategy and thus, the first part of research will be done with an exploratory approach. Thereafter, descriptive research will complement, and the combined research will lay the foundation to answer purpose (1). For purpose (2), an explanatory approach is most relevant. Perhaps the most important ambition of this thesis is to identify impact-related outcomes from the residential real estate sector, which outcomes are material/important, how these can be measured, and how to communicate these through

useful indicators. The relationship between material/important outcomes and its measurability was not known before the collection and analysis of empirics, thus advocating the means of an explanatory approach. Lastly, an explanatory approach requires intellectual flexibility, where the researchers need to be able to readily reconsider and question their old beliefs in favour of empirical data. The research method needs to be flexible and interchangeable to fit a possibly changing strategy.

2.2 Research Strategy

A research strategy is a plan created to achieve the goal of the research. It guides the researcher's thoughts and efforts and outlines the research approach that addresses the research goals - enabling the researcher to conduct research systematically to produce quality results and to be efficient in its process (Denscombe, 2017).

There are two main research strategies: quantitative and qualitative research. Quantitative research produces numerical data for testing hypotheses and forecast outcomes by mathematical and statistical analysis. In contrast, qualitative research uses non-numerical data such as words and images to produce detailed and descriptive information in order to get a holistic understanding of the problem under examination. It should be emphasised that the two strategies can be used together in the same study and that in some cases, it may provide better results than if only one strategy is used in isolation. However, for this thesis, a qualitative strategy was selected since it enables flexibility and is oriented to knowledge discovery from observations and interviews and is suitable when exploring new lines of research (Queirós, Faria, Almeida., 2017).

Considering the qualitative research strategy, the researchers should reflect on the process of collecting data and performing analysis as well as on the relationship between data and theory. The process of collecting data and performing analysis is often approached in either two main ways: by a linear-sequential approach or by an iterative approach. With the linear-sequential approach, the researcher first collects all data and then move on to perform the analysis. In contrast, the iterative approach allows the researcher to move back and forth between the process of collecting data and performing the analysis. For this thesis, the iterative approach was selected since it provides continuous insight into what data is missing

and where that data can be found, hence allowing more flexibility than the linear-sequential approach. Regarding the relationship between data and theory, the researcher can either choose to apply existing theoretical understandings to explain and analyse their data or ignore existing theories and instead find patterns, themes, and concepts from data (Flick, 2018).

The relation between data collection and analysis, and data and theory can further be discussed in terms of deduction, induction, and abduction. A deductive approach starts with a specific theory or hypothesised rule for which raw data is used to verify or reject existing understandings. In contrast, an inductive approach uses a series of empirical observations from which general statements can be derived. In qualitative research, deduction refers to the use of existing theoretical frameworks for performing data analysis, while induction refers to identifying patterns, concepts, and theories from data. Lastly, the abductive approach can be concerned as a combination of the deductive and the inductive method (ibid.). This thesis aims to use both existing theories as well as identify patterns, themes, and concepts from qualitative data and then derive general statements to try to answer the research questions. Therefore, an abductive approach was selected.

2.3 Research Design and Data Collection

Data collection was carried through by triangulation, which is the use of different sources of information in the data collection (Denscombe, 2017). To increase the validity of the data and results, an extensive sampling from mainly three sources of data were gathered. The three sources where: published research, investment experts and real estate experts. The experts interviewed are professionals operating within either sustainable investing or sustainability within real estate. The published research was studied through a literature review.

2.3.1 Selection

As researchers select cases for their research, an implicit formulation of the agenda of the research is conceived (Seawright & Gerring, 2008). In general, qualitative research, as the one conducted in this thesis, tend to use small samples which increases the importance that the data obtained from the samples are selected through an adequate process. The selection process is generally complicated as (1) it may be difficult to identify valuable cases genuinely related to the research question, (2) the chosen cases should also include a degree of variation

(one which the researchers may have difficulty to address if stuck with a predetermined thesis) and (3) background of the cases often play a role (ibid.). In order to surpass these problems in case selection, one could propose choosing cases randomly, which would consequently eliminate any selection bias. However, random sampling is an approach more common and fit for quantitative research as the results often should reflect a generalisation of a larger population. For qualitative research in general, and this thesis in particular, purposive/purposeful sampling is more appropriate as it aims to investigate, discover and understand rather than measure frequencies or values (Merriam & Tisdell, 2015). Therefore, the cases should be selected carefully and reflect sources that can bring the most relevant insight related to the research. Furthermore, researchers should first determine the selection criteria. The criteria will ensure the sampling is made purposefully (ibid.). The selection criteria should consist of various attributes essential to the research and the research questions. Overall, the criteria should unambiguously reflect the purpose of the research. Following the argumentation above, purposeful sampling was selected for this research. The sampling consisted of stakeholders from two (2) universes: (1) impact investors; including private equity firms with an impact-related approach and (2) residential real estate companies; including sustainability-focused personnel. The first (1) group of interviewees, representing the financial side, was chosen to give a broad picture of how impact investing can be conducted and how sustainability measures can be part of an investment approach. The second group (2), the real estate side, was chosen to provide data on how real estate companies currently incorporate sustainability and in what areas positive impact can be identified. The respondent universes reflect the mission of the project - understand impact investing and apply it to the residential real estate sector. The investors were chosen based on being active investors (controlling shareholding and working with their portfolio companies) acting with an investment strategy or approach similar to impact investing. The real estate companies were chosen to try to represent a broad group of residential real estate actors in the Nordic and foremost Swedish market. The extensive sampling would give a more comprehensive perspective as to what the residential real estate sector is about today regarding sustainability and to what potential impact can be seen.

2.3.2 Literature Review

A useful literature review indicates what research has already been done within a subject area, which ensures that new research adds to existing knowledge rather than reinventing it. Moreover, the literature review enables the reader to familiarise with the area of interest (Höst et al., 2006).

In this thesis, the literature review was composed of a variety of relevant scientific research on impact investing and its applications as well as on social and environmental effects originating from the real estate industry. The literature review contextualised the subject area and made the foundation for which the interviews were later based.

The first part of the process for identifying relevant scientific research was conducted through a crude search where documents and published reports were quickly reviewed. The intention was to gain information on what research has already been done within the subject area. After that, a large number of documents and published reports were retrieved in a lengthy process by using variants of keywords and terms that were identified in the crude search, all originating in the research area of interest. The first two parts of the process were considered necessary as the scope of the literature review was not entirely fixed since the relevance of different theories were not known beforehand. Likewise, no previous work had been done on impact investing within the Swedish residential real estate sector. The final part of the process consisted of selecting several documents and research reports that should be used in the final catalogue of sources. These were prioritised due to either their high number of citations or search results, author's status, or general relevance to the topic.

Some of the keywords used in the literature search were "Impact investing", "Impact investing within the real estate sector", "Social impact investment", "Environmental impact investment", "Social impact", "Environmental impact", "Impact accounting", "Sustainability accounting", "Impact from the real estate sector", and "Impact standards". To ensure results were of relevance, documents, and research reports used in the literature review are not older than ten years and are all published by reputable institutions, organisations, and authors.

2.3.3 Interviews

Kahn & Canell (1957) defines an interview as a discussion with a purpose with two or more people. More recent studies, however, elaborates on the concept and categorises it into three types: structured, semi-structured and unstructured/in-depth interviews (Saunders, Lewis & Thornhill, 2012). The structured interviews proceed from questionnaires based on a standardised set of questions. This method enables a more quantitative approach in the analysis of empirics. Semi-structured interviews are based on the same themes and questions for each interview; however, the exact form of the discussion may differ depending on its development and context. While semi-structured interviews are less fit for quantitative analysis, the format enables for a more in-depth discussion through adding (follow-up) questions and disregarding fewer substantial ones. Lastly, unconstructed interviews are informal and free of predetermined questions. The format enables the interviewee to elaborate freely on themes and aspects of the subject. A semi-structured qualitative approach was used for this project. The exploratory nature of the thesis called for interviews to be open-ended and enhance the interviewee to give their unbiased perspective on the subjects discussed. This approach agrees with the one of Blumberg, Cooper and Schindler, who state that exploratory research is more likely to benefit from qualitative interview formats, due to the need for understanding the underlying rationale and context of the responses (2008). Furthermore, when interviewing professional volunteers who sometimes can rank highly (such as management), interviews may be more effective in generating valuable responses if carefully prepared and qualitative, especially compared to surveys or questionnaires (North, Leigh & Cough, 1983).

2.4 Analysis of Research and Design

As previously discussed, a research strategy can be categorised as deductive, inductive or abductive. The same categorising can also be used for the analysis process, especially when having a qualitative data set. The deductive approach would entail testing the data relevancy with a predetermined theory or hypothesis. Therefore, deductive approaches are often disfavoured as there is a risk of fitting theory with data that is not aligned with the views of the participants (Saunders, Lewis & Thornhill, 2012). With the inductive approach, data is collected and continuously analysed in order to identify patterns, themes and correlation to investigate further. With this approach, a theoretical framework is not definitely defined - the theory emerges from the analysis of data and is shaped during the process of the research. The theories that then emerge are used to test hypotheses (ibid.). Lastly, the abductive approach entails a combination of the inductive and deductive approaches which also is applicable for analysis of the research (Dubois & Gadde, 2002).

This thesis, as previously stated, will be built upon qualitative data. There are three types of qualitative research analysis processes; summarising (condensation), categorisation (grouping), and structuring (ordering). The processes are necessary to understand in order to comprehend the data, match related data from different sources, identify patterns and themes, develop and test hypotheses and theories and lastly, draw and verify conclusions (Saunders, Lewis & Thornhill, 2012). Summarising data, the most general form of analysis offers the researchers a way to become familiar with underlying themes from interviews and observations and find new relationships. Categorisation involves developing categories and after that placing the data into correct categories. This demand that the researcher recognises relationships and can construct sufficient categories, preferably mutually exclusive but collectively exhaustive. The categorisation is a natural step following the summarising of data. Lastly, the structuring of data refers to the provision of context and narrative to interview results. Presenting information to answer what the story is concerning, the following consequences of it and the outcome enhances comparability between narrative (ibid.).

This thesis will practice all of the above concepts. Firstly, theory and empirics from the sustainable investing sphere will be summarised and categorised. Thereafter, theory and

empirics from interviews with real estate professional will be added. This knowledge base will constitute the framework for which the analysis will be handled with. The data will be structured analytical circumstances in a way that addresses the thesis purpose. The data processing will yield a solid base of analysis where conclusions lastly will be drawn.

2.5 Research Quality

When conducting research, the researcher must reflect upon quality and the credibility of the study. In order to address these issues, the researcher should consider the *reliability*, *validity*, *generalisability*, and *objectivity* of the study (Höst et al., 2006, Miles, M et al., 2013).

2.5.1 Reliability

Reliability refers to the trustworthiness of data collection and analysis concerning random variations (Höst et al., 2006). The underlying question here is whether the process of the research is consistent, reasonably stable over time and across researchers and methods (Miles, M et al., 2013). Multiple interviews were held with people from different backgrounds, and theory was collected from different sources to enhance reliability. All interviews were held in a neutral setting where the interview questions were framed in the same way, with two different interview guides for each type of interview object - one guide for investor and one for real estate companies. The quality of the data was later checked by getting respondent validation in order to eliminate biases and frauds. In addition, sources used for collecting theory was examined thoroughly concerning any bias or incentives that could be misleading the researcher in its findings or results.

2.5.2 Validity

In general, validity refers to the relation between the object of the research and what is actually measured. Validity in data collection means that the findings truly represent the overall purpose of the research, and what is measured is what is claimed to be measured. In order to achieve validity in research, different methods can be used for studying the same object (Höst et al., 2006). For this project, a triangulation approach was used where data and theory from multiple sources, such as published research to industry experts, were combined. For the interviews, guides were developed to introduce participants to the discussion, without

directing or biasing the interviewee towards specific answers. In addition, respondent validation was used towards the end of the project for validating the result and conclusion.

2.5.3 Generalisability

When performing case studies, researchers run several risks of generalising wrongly from specific instances. Therefore, it is essential to reflect on the degree to which the results can be generalised to broader settings (Miles, M et al., 2013). Generalisability can be explained in terms of representativeness and transferability. The representativity of a study is the degree to which the results represent the whole population and is dependent on the sample selection and source of data (Höst et al., 2006). In contrast, the transferability of a study is the degree to which the results can be transferred to other contexts and situations (Korstjens & Moser, 2018).

By interviewing both pure impact-based investors as well as sustainability-based investors, and by collecting theories on impact investing from reliable sources, the thesis aims to capture different angles and best practises of impact investing. Collecting information over a broad spectrum will ensure that the results represent the whole population of experts within impact investing well. In terms of transferability, this thesis relies on the methodology covered in this chapter which provides enough information for other researchers to replicate the research process and apply it to similar areas of impact investing. The authors of this thesis also strived towards results, which to some extent, were based on generally accepted theories that can be used for analysing impact in different industries and sectors.

2.5.4 Objectivity

The objectivity of a study refers to the degree to which findings are non-subjective to researcher bias and can be confirmed by other researchers (Korstjens & Moser, 2018). Essentially, this implies that methods and procedures are described explicitly and in detail so that other researchers can follow the actual sequence of how data were collected, processed, and displayed. Hence, enabling other researchers to be able to follow the progress leading up to the conclusion and to be able to confirm that findings were not derived from the researcher's will to distort the results in favour of its own beliefs (Miles, M et al., 2013).

Regarding qualitative data collection, such as interviews, the researcher should always examine if data have been interpreted realistically since it can affect the results and thereby the objectivity of the study. By using respondent validation, the researcher can mitigate the risk of having misinterpreting information in the results. However, the conclusion, which is a product of the results, will be subjective since it because of the authors' perspectives and potential biases. Aiming towards objectivity, the authors of this thesis regularly reflected on and discussed how data was interpreted - always trying to have an open mindset and challenge their own beliefs.

3. Theory

The theory addresses the two purposes of the thesis. Firstly, chapter 3.1 and 3.2 provide theoretical background and groundwork on impact investing - describing and explaining the investment strategy.

Secondly, chapter 3.3 - 3.6 aim to identify relevant measures to apply when investing with the strategy. The material covers how to target, manage, measure and report impact, all necessary perspectives to master impact investing, ensuring theoretical comprehensiveness. Chapter 3.3 and 3.4 introduces best practices and frameworks on how to target impact. Furthermore, chapter 3.4 provides insight into how to manage impact. Lastly, chapter 3.5 and 3.6 present two standards on measure and reporting impact.

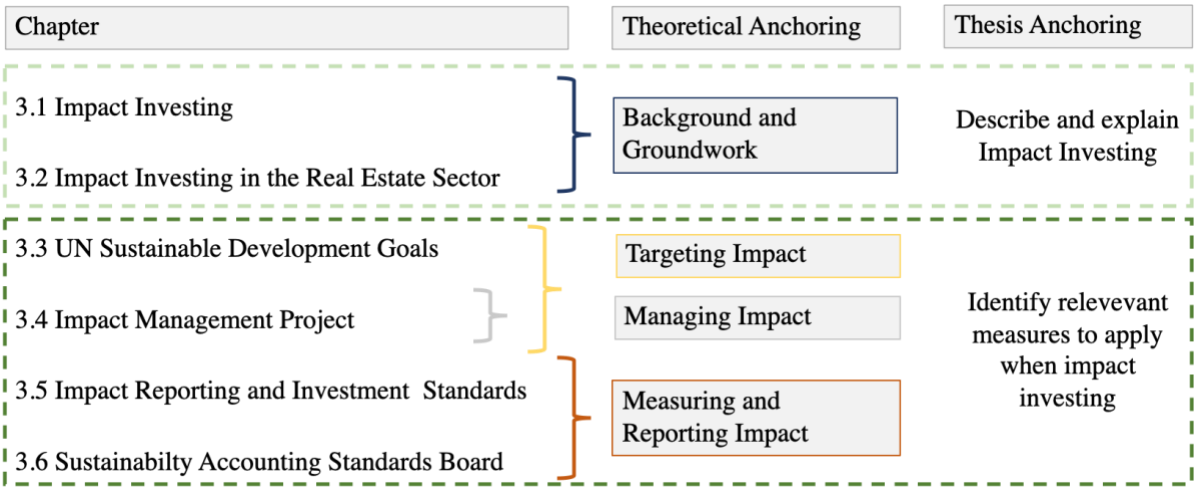

Figure 2. Illustration of theory structure

3.1 Impact Investing

3.1.1 What is Impact Investing

As previously touched upon, impact investing is a strategy of investing with dual intentions: generating positive, measurable social and environmental impact parallel to financial return. These investments can be made in any market, emerging as well as developed ones. The range of return may vary from below-market-rate to above, depending on the risk appetite of the investor. However, financial returns should always be positive since it still is investing and not philanthropy (Global Impact Investor Network [GIIN], 2020a).

Four key elements constitute the groundwork on which the strategy relies (ibid.):

- **Intentionality:** the intention to generate positive social or environmental impact alongside financial return is essential and the very core of the strategy. Intentionality differentiates the strategy from responsible or sustainable investing.
- **Financial returns:** investors should expect a financial return on the capital invested. The range of return may stretch from below to risk-adjusted market-rate and thus has no usual or average rate of return. Financial return differentiates the strategy from philanthropy.
- **Range of asset classes:** investors can utilise the strategy across any asset class for investing such as fixed income, venture capital, private equity and more.
- **Impact measurement:** alongside the investments comes the commitment from the investor to measure and report social and environmental performance. Measuring ensure transparency and accountability towards the strategy and its objectives.

3.1.2 How to Impact Invest

Four practices characterise how to carry out impact investing and distinguish the operations from other investment strategies (ibid.):

- **Intentionality:** Solutions and opportunities for social and environmental challenges are financed intentionally. To articulate the intentionality, it includes:
    - Setting transparent financial and impact goals.

    - Express an investment thesis that is thorough and explicit about these goals and the intended measures planned to reach them.
- **The use of evidence and impact data in investment design:** Evidence and data, quantitative and qualitative, are granularly used to increase the contribution of positive impact, including:
    - Identifying needs that are aligned with empirical evidence or well-proven science as well as needs expressed by the population or environmental community the investment seeks to serve.
    - Using the best and most relevant evidence accessible to:
        - Set targets for each investment to contribute to improvement which is of need.
        - Form investment strategies based on solutions that effectively address the needs identified and adequately can manage any potential downside risk in terms of the targeted impact.
        - Identify qualitative and quantitative indicators, KPIs, to track performance.
    - Continuously improve the capacity to conduct impact analytics and contribute to the rigor of the activities.
- **Manage impact performance:** impact performance data is used to refine decision-making in the path towards achieving the environmental and social objectives. Managing performance includes:
    - Establishing feedback loops embedded through the whole lifecycle of the investment as feasible.
    - Identifying risks related to impact goals and managing mitigation plans.
    - Minimising negative consequences of the investment.
    - Transparently disclose actual impact performance to stakeholders, in as comparable a manner as possible.
- **Contribute to the growth of impact investing:** actions should be taken to enable the growth of impact investing and make the process more effortless for investors. Contributing through:
    - Transparently disclose the degree of use of the impact investing practices.
    - Committing to driving shared conventions, approaches and standards to facilitate impact goals, strategies and performance monitoring.

- Accounting for impact performance and quality of management practices of prospective co-investors and investees.
- Sharing non-proprietary and non-private positive and negative learnings, evidence and data on the subject.

3.1.3 Why Impact Investing

The impact investing strategy challenges traditional views, both of investment outcomes and the tackling of social and environmental issues - which usually philanthropy or public efforts intend to solve. The impact investing market offers diverse, viable and more future-proof opportunities for investors to advance on societal and global challenges while enjoying financial return (ibid.). The rise of efforts towards sustainability has affected institutions with capital and driven the market for capital towards more sustainable investing approaches, making the impact investment market swell of capital ready to be deployed for suitable investments. Larry Fink, the CEO of the world's largest asset management company, is a vocal advocate of more sustainable investment strategies. In his latest CEO-letter for 2020, he stresses the importance of sustainability. Fink states that the shift of capital allocation from financial institutions towards sustainable efforts will occur more quickly than changes to the climate itself (Fink, 2020). Thus, impact investors can benefit from the support of society, governments, and capital while contributing to positive and constructive outcomes in addition to financial return.

3.1.4 Who is Pursuing Impact Investing

Several investing institutions and companies are currently pursuing impact investing, actors like fund managers, financial institutions/banks, private foundations, pension funds, family offices and more. The more agile firms, like venture capital and private equity firms, have been spearheading the industry with funds like TPG's Rise Fund, making a significant impact on the investing society (Jack, 2018).

3.2 Real Estate Impact Investing

3.2.1 What is Impact Investing in Real Estate

Impact Investing can make a significant change in the real estate sector. The built environment make up the foundation of every aspect of peoples' life - homes, workplace, health, education and leisure. Therefore, improving the quality of both internal and external environments provide direct benefits to people, society and bring about both occupier and landlord satisfaction. As buildings depend on resources and energy in the development phase as well as management-phase, environmental impact - particularly carbon-footprint, is essential to regard throughout the lifecycle. However, one can argue that the impact on people as tenants have been less critical in the real estate sector. With social change and development increasing its importance, and climate emergency rising stronger, reducing negative impact and contributing to positive impact on the planet and society is necessary to support the shared future and investment horizons. For the real estate sector, opportunities for recognising and delivering impact are significant (Schroders, 2019).

3.2.2 How to Invest for Impact in Real Estate

To understand how and where to direct impact investing strategies within real estate, UK asset manager Schroders have linked potential impact to the SDGs (See Theory chapter 3.3). Schroders uphold SDG #8 (Decent Work and Economic Growth), #11 (Sustainable Cities and Communities) and #13 (Climate Action) as extra relevant and achievable for the real estate sector. These SDGs complement the company's pillars of real estate impact: People, Planet, Place and Prosperity. Schroders means that this framework provides a holistic view on impact from real estate and is used to form the basis on the firm's real estate investing strategy. To fully succeed with the strategy, reducing negative and improving positive impact should be an integral part of the management strategy. To do so, analysing and considering to tenants physical, mental and well-being needs, supply chains, natural resources and materials, waste and landscape is essential. Example projects of Schroders have been regenerating a town-centre with the input of the local community, improve energy consumption and increasing share from renewables and promoting social and environmentally conscious hotels (ibid.).

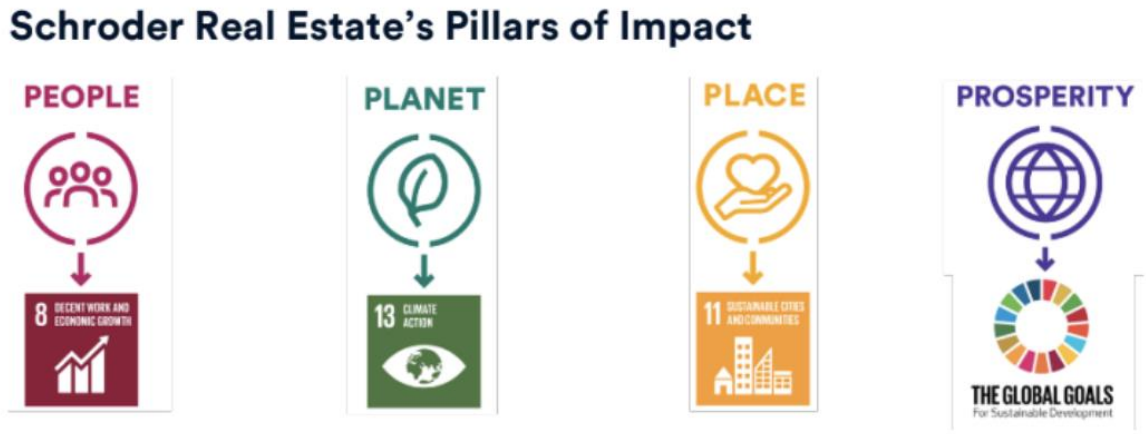

Figure 3. Illustration of Schroder's Pillars of Impact (Schroders, 2019)

Another perspective can be the one of APPA Real Estate, an American real estate developer and investment firm focusing on achieving impact. APPA has categorised different strategies of impact investing in real estate (APPA Real Estate, 2020):

- **Green Real Estate** - achieves environmental impact through focusing on applying green principles into projects. The intention is to deliver a real, physical asset which outperforms today's standards for water and energy efficiency, waste reduction and safe housing.
- **Housing Affordability** - achieves social impact through focusing on affordability for the as-built and future built environment. The intention is to provide the economically underserved population with proper housing.
- **Sustainable Community** - achieves both social and environmental impact. The focus is to design and build real estate assets that serve as a foundation for neighbourhood growth and contribute to community well-being. Central parts are including local community input, enabling central meeting places for public interactivity and serve essential needs of the neighbourhood including health care, education and more.

APPA further exemplifies types of impact that have been identified within the real estate sector (ibid.):

- **Environmental:** energy and water efficiency, using renewable energy sources, reducing waste generation and improving safety for as-built residences (such as fire safety)
- **Social:** offering affordable housing, supporting community culture, providing health and fitness areas, providing health food supplies and options, supporting and

promoting small businesses, supporting education and health care, and delivering community destinations.

In addition to these, more easily categorised impacts, cross-functional impact can be achieved through example smart transport solutions. Examples are metro-rails, bike-ability, walkability, enhancing both positive social and environmental outcomes (ibid.).

3.3 United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs) (Figure 4), are a collection of 17 interconnected global goals that were developed by the United Nations in order to target ambitious improvements by the year 2030 against a wide range of global challenges (UN, 2020). The goals are universal and cover issues affecting us all. A couple of targets further describes each goal. The targets provide a more detailed description of the goals and promote engagement on a more personal level (UN, 2015). According to the Global Impact Investing Network (GIIN), investments of several trillion dollars are required to meet these goals by 2030. However, governments and philanthropists cannot provide such a large volume of funding on their own. Therefore, support needs to be provided by the financial markets, and especially from the private capital markets. With such large volumes of funding required, opportunities have presented itself for impact investors to bridge these gaps and finance robust solutions (GIIN, 2018).

Figure 4. The United Nations Sustainable Development Goals (UN, 2020)

By providing capital and contributing with knowledge and expertise, impact investors can help energise and guide businesses that are "doing good" into reaching their full potential and create impact - and by doing so contributing to these global goals. Therefore, many investors have begun to align their portfolios to the SDGs. In contrast, others either use it as a framework for identifying and targeting impact investments or for developing impact investment strategies (ibid.). For example, the US investment firm Kohlberg Kravis Roberts (KKR) recently closed their Global Impact Fund. A $1.3 billion fund dedicated to investment opportunities in companies whose business models provide solutions to environmental and social challenges and that contributes explicitly to measurable progress towards one or more of the SDGs (Businesswire, 2020).

"The UN SDGS were developed to mobilize citizens, policymakers, technologists and investors to address global challenges. As investors, we have a significant role to play in building businesses that contribute to SDG solutions while also generating financial returns for our fund investors by doing so," - Robert Antablin and Ken Mehlman, KKR Partners and Co-Heads of KKR Global Impact (Businesswire, 2020).

According to a recent survey by GIIN, 62% of the participating investors stated that they accurately track some or all of their investment's performances to the SDGs (GIIN, 2019a). Furthermore, by 2030, GIIN expects that impact investors will have made substantial contributions to the progress of achieving the SDG targets (GIIN, 2018).

3.4 Impact Management Project

"If we want impact management to become the norm for every enterprise and investor, as the UN Sustainable Development Goals demand, we need shared principles, reporting standards and benchmarking methods for impact. The IMP network is the first time that such a diverse group of organisations, from across the entire value chain, have chosen to work on content in a deliberately coordinated fashion. This is our best shot at creating an impact management approach that can ultimately become 'generally accepted' globally." - Clara Barby, Chief Executive of the Impact Management Project (Bridges Fund Management, 2018).

The need for a commonly accepted way of defining, measuring and reporting impact, has for a long time been pointed out by many - and especially by enterprises and investors. This need is what created the foundation of the Impact Management Project (IMP). Since 2016, the IMP has brought together more than 2000 organisations across the global value chain to get their perspective on the impact topic - to reach a global consensus and to agree on shared fundamentals for how to manage, measure and report impact. Since the SDGs are commonly used indicators for identifying impact, much of the IMP work centres around providing insight into understanding the impact performance of enterprises and investments against the SDGs. IMP defines impact as "*a change in outcome for people, the environment, or the economy, caused by an organisation either partially or wholly. An impact can be positive or negative, intended or unintended*" (IMP, 2020a).

Essentially, the IMP is a forum for building a common understanding of how to manage and measure impact. It consists of the IMP Structured Network - a collaboration between some of the world's leading standard-setters, and the IMP Practitioner Community - a community of over 2000 enterprises and investors across different disciplines and geographies. By gathering information of best practises, experience and knowledge, shared through the forum, the IMP developed the Five Dimensions of Impact. In order to understand performance along each dimension, IMP has also specified specific data categories that need to be measured and reported for each dimension (ibid.).

3.4.1 The Five Dimensions of Impact

IMP reached the consensus that impact should be analysed over five dimensions: *What*, *Who*, *How Much*, *Contribution* and *Risk* (Table 1). The five dimensions help us understand what materialised effects business has on people and the planet. Thus, the IMP can provide support for investors into making the right investment decisions according to their impact goals. Furthermore, by collecting data for each dimension, enterprises, and their investors, can assess and manage their impact consistently and comparably (IMP, 2020b).

Impact dimension	Impact questions each dimension seeks to answer
What	•What outcome occurs in the period? •How important is the outcomes to the people (or planet) experiencing them?
Who	•Who experiences the outcome? •How underserved are the affected stakeholders in relation to the outcome?
How Much	•How much of the outcome occurs - across scale, depth and duration?
Contribution	•Would this change likely have happened anyway?
Risk	•What is the risk to people and planet that impact does not occur as expected?

Table 1. The Five Dimensions of Impact (IMP, 2020b)

WHAT

The "What" impact dimension covers outcomes that the enterprise and its activities contribute to and the importance of these outcomes to stakeholders. The below impact data categories assemble data to assess and report the outcome (Table 2) (IMP, 2020c).

Impact data category	Description	Example
Outcome level in period	• The level of outcome experienced by the stakeholder when engaging with the enterprise • The outcome can be positive or negative, intended or unintended.	£9.50 income per hour, or "very positive experience of care"
Outcome threshold	• The level of outcome that the stakeholder considers to be a positive outcome • Anything below this level is considered a negative outcome. • The outcome threshold can be a nationally or internationally-agreed standard.	"How important is [outcome] to you?"
Importance of the outcome to the stakeholder	• The stakeholder's view of whether the outcome they experience is important (relative to other outcomes) • Where possible, the people experiencing the outcome provide this data, although third-party research may also be considered. • For the environment, scientific research provides this view.	£7.85 income per hour (UK minimum real living wage)
SDG or other global goal	• The Sustainable Development Goal target or other global goal that the outcome relates to • An outcome may relate to more than one goal.	SDG target: 8.5

Table 2. The "What" dimension of impact (IMP, 2020c)

Regarding the outcomes, enterprises should examine if the outcomes are positive or negative, intended or unintended. Performing such an examination will allow the enterprise to capture all types of outcomes. The analysis will lay the foundation for what outcomes to priorities, what policies and safeguards that should be established against negative outcomes and improve the communication of impact towards investors. To understand the relevance of what outcomes should be prioritised, an enterprise can gather input directly from people experiencing impact in order to get insight into what it is that matters the most to these stakeholders. Resources can then be directed towards activities driving that outcome (ibid.).

In order to track progress against specific outcomes, certain outcome indicators can be established. Such indicators can be expressed as four data types: numbers, percentages, ratio, and categorical. Deciding on what indicator to use depends on how well the indicator reflects the outcomes and how practical it is in terms of data collection and management costs. To get insight into this matter, consultation with different stakeholders is of relevance. However, since the preferences of stakeholders might change over time, it is essential to remember that this should not be a one-time exercise - consultation and feedback should be conducted and gathered continuously (ibid.).

Comparing the outcomes to industry-standards and peer groups can help the enterprise identify valuable and critical thresholds. Industry-standard thresholds, set by governments and regulatory bodies, will function as benchmarks for the generally accepted minimum level of outcome - and reveal the "tipping point" at which an outcome turns from positive to negative. On the other hand, peer group thresholds reveal what stakeholders consider being a positive outcome and what the industry average is. Benchmarking against these types of thresholds will give insight into "how good" the outcomes generated by the enterprises are. If the outcomes fall below any of these thresholds, the enterprise will not meet the needs of its stakeholders (ibid.).

WHO

The "Who" impact dimension refers to the stakeholders affected by the outcomes and how underserved these stakeholders are. This dimension observes the data categories below to assess and report stakeholder data (Table 3) (IMP, 2020d).

Impact data category	Description	Example
Stakeholder	The type of stakeholder experiencing the outcome	• Customers • Environment
Geographical boundary	The geographical location where the stakeholder experiences the social and/or environmental outcome	• West Bengal, India • Addis Ababa, Ethiopia
Outcome level at baseline	The level of outcome experienced by the stakeholder prior to engaging with, or otherwise being affected by, the enterprise	• £6.50 income per hour at baseline • 45,000 tonnes CO2 emissions at baseline
Stakeholder characteristics	Socio-demographic and/ or behavioural characteristics and/or ecosystem characteristics of the stakeholder to enable segmentation	• % unemployed • % first-time customers

Table 3. The "Who" dimension of impact (IMP, 2020d)

The first step towards understanding who is affected by an enterprise's activities is to categorise stakeholders into stakeholder groups. For enterprises, these stakeholder groups are often defined as customers, local communities, employees, suppliers and distributors, and the planet. An enterprise or investor must consider all its stakeholders to understand their total impact. When stakeholders have been categorised, geographical boundaries need to be examined in order to understand which locations the stakeholder are experiencing the enterprise's outcomes. Finding these locations will help enterprises and investors to put their impact into context (ibid.).

Baselines and baseline indicators should also be established that express the level of outcomes experienced by stakeholders before engaging or being affected by the enterprise. Baselines are formed by collecting and analysing data on the current conditions of the stakeholders. Establishing baselines are critical for understanding how underserved or well-served stakeholders are, for setting goals, and for estimating outcome changes once the enterprise starts having an impact. Whit this insight, enterprises and investors can then (re)allocate their resources toward underserved stakeholder in order to create a more significant impact (ibid.).

Since differences often exist between stakeholders within a stakeholder group, segmenting stakeholders based on socio-demographics and behavioural characteristics can provide

further insight into how enterprises and investors can (re)allocate their resources to drive both social and financial results (ibid.).

HOW MUCH

The "How Much" impact dimension let enterprises and investors understand the significance of an outcome to stakeholders. The dimension interprets data from three perspectives, shown below, to assess the importance of the outcomes experienced by stakeholders (Table 4) (IMP, 2020e).

Impact data category	Description	Example
Scale	The number of individuals experiencing the outcome. When the planet is the stakeholder, this category is not relevant.	1,450 individuals
Depth	The degree of change experienced by the stakeholder. Depth is calculated by analysing the change that has occured between the 'Outcome level at baseline' (Who) and the 'Outcome level in period' (What).	20% increase in outcome relative to baseline
Duration	The time period for which the stakeholder experiences the outcome	24 months

Table 4. The "How Much" dimension of impact (IMP, 2020e)

The scale category describes the number of people experiencing the outcomes, whether it is customers, employees or suppliers. Capturing the current state of the scale can bring insight into how targeting can be done more efficiently in terms of how many will be affected and what measures are needed to monitor performance. However, only defining the scale is not enough to get a full understanding of the outcome significance. Enterprises and investors also need to capture the depth and duration of outcomes experienced by the stakeholder (ibid.).

The depth category examines the degree of social and environmental change experienced by the stakeholder. The depth is the difference between the outcome in the current period and the baseline. Depth is often expressed as an increase or decrease by a numerical factor, expressed in relative or absolute terms, e.g. a 20% increase in salary or a 4000-tonne reduction of CO2 (ibid.).

The duration of an outcome is as important to examine as the other two categories. The duration of an outcome is the period that the stakeholder is experiencing the outcome - it can be either long-lasting or short-lived. Stakeholders want positive outcomes to be long-lasting and adverse outcomes to be short-lived. Therefore, by considering the duration of an

outcome, enterprises and investors become encouraged to think about sustainability, reflecting on their short-, medium-, and long-term effects (ibid.).

CONTRIBUTION

The "Contribution" impact dimension helps enterprises and investors identify whether or not their activities or efforts have contributed to specific social or environmental outcomes that stakeholders would not have experienced otherwise. The dimension focuses on two specific data categories to assess what would likely have happened in the absence of the enterprise or investors activities (Table 5) (IMP, 2020f).

Impact data category	Description	Illustrative values	
Depth counterfactual	The estimated degree of change that would have happened anyway - without engaging with, or being affected by, the enterprise	5% increase in average savings balance	**Methods** A number of methods can be used to estimate an enterprise's contribution: • Market research • Evidence-based research • Stakeholder feedback • RCTs
Duration counterfactual	The estimated time period that the outcome would have lasted for anyway - without engaging with, or being affected by, the enterprise	15 months	

Table 5. The "Contribution" dimension of impact (IMP, 2020f)

Since enterprises and investors operate in a dynamic and competitive landscape where multiple actors want to contribute to the same set of social and environmental outcomes, it is essential to understand what contribution that originates from specific investor activities. Identifying these contributions will deepen knowledge for the investor's part of the ecosystem. With this information, enterprises and investors can work on optimising the whole system from their contribution instead of only working on a single intervention (ibid.).

There are two types of data categories that enterprises and investors should evaluate in order to assess their contribution to social and environmental outcomes. The first one, related to the depth of the contribution, is the extent to which the enterprise or investor was responsible for the outcomes realised. It is not the depth described under the "How Much" dimension since depth here solely focuses on what difference the enterprise or investor have contributed with - and not the total difference between outcomes and baseline which includes all that would have happened anyhow. By understanding the depth of contribution, the enterprise or investor can (re)allocate their resources towards maximising their most significant contribution (ibid.).

The second data category is the estimated duration of an outcome experienced by stakeholders for which the enterprise or investor was solely responsible. Enterprises and investors need to account for the estimated duration of the outcome that is not related to their contribution. Therefore, subtracting the status quo duration to the estimated duration from the investor/enterprise contribution gives the created duration.
Activities and efforts that drive the duration of an outcome provide enterprises and investors with valuable insight (ibid.).

RISK

The "Risk" impact dimension helps enterprises and investors assess and mitigate the likelihood that the impact will be different than expected. The dimension covers two specific data categories to assess and understand risks (Table 6) (IMP, 2020g).

Impact data category	Description	Example
Risk type	The type of risk that may undermine the delivery of the expected impact for people and/or the planet. There are nine types of impact risk.	Execution risk Commentary: In order to achieve high absolute learning outcomes rather than high learning progress, schools may select students on the basis of their ability and in the process exclude disadvantaged groups.
Risk level	The level of risk, assessed by combining the likelihood of the risk occuring, and the severity of the consequences for people and/or the planet if it does.	High Commentary: Market research and expert interviews indicate that this risk is very likely to happen, and could have significant negative consequences in achieving education equality.

Table 6. The "Who" dimension of impact (IMP, 2020g)

Enterprises and investors always face the risk of not achieving the impact goals expected, and the difference between what is expected and what is realised can have a material effect on people or the planet experiencing the impact. For example, there can be severe consequences if a pharmaceutical company providing medicine to sick people does not deliver the medicine in time. Hence, enterprises and investors should always evaluate their impact risk in order to avoid causing undesirable outcomes that may harm people or the planet (ibid.).

Collecting data in the two data categories provide enterprises and investors with valuable information and insight into their potential impact risks, and how work can be done to decrease the likelihood and the severity of them. The first category helps the enterprise or investor to identify which type of impact risks they are exposed to (Table 7) (ibid.).

	Impact Risk		Definition
1	Evidence risk	→	The probability that insufficient high-quality data exists to know what impact is occurring
2	External risk	→	The probability that external factors disrupt our ability to deliver the impact
3	Stakeholder participation risk	→	The probability that the expectations and/or experience of stakeholders are misunderstood or not taken into account
4	Drop-off risk	→	The probability that positive impact does not endure and/or that negative impact is no longer mitigated
5	Efficiency risk	→	The probability that the impact could have been achieved with fewer resources or at a lower cost
6	Execution risk	→	The probability that the activities are not delivered as planned and do not result in the desired outcomes
7	Alignment risk	→	The probability that impact is not locked into the enterprise model
8	Endurance risk	→	The probability that the required activities are not delivered for a long enough period
9	Unexpected impact risk	→	The probability that significant unexpected positive and/ or negative impact is experienced by people and the planet

Table 7. Nine types of impact risks (IMP, 2020g)

When relevant and material risks are identified, the second category helps the enterprise or investor to examine the level of impact risks related to those risk types. The analysis should consider the likelihood of the risk materialising and the degree to which the risk has consequences (Figure 5) (ibid.).

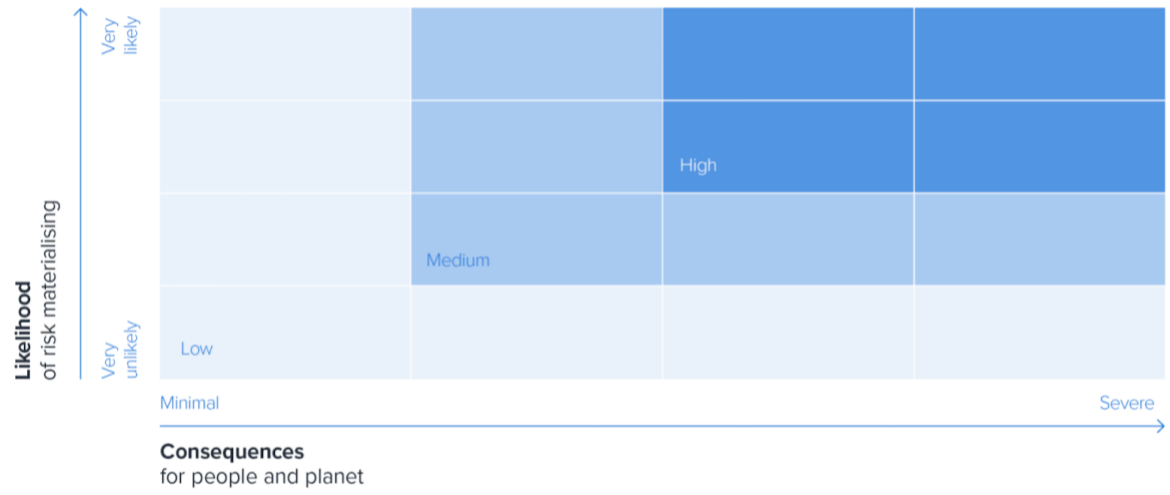

Figure 5. Mapping level of impact risk by likelihood of risk materialising and consequence (IMP, 2020g)

3.4.2 How Investors Manage Impact

Investors have different reasons for managing the impact of their investment or portfolio of investments. It all depends on what values, motives and intentions they have. Some investors are motivated to manage impact because they want to create positive social and environmental change. Some want to maintain a good reputation and comply with regulations, and others believe it is a way of unlocking commercial value. Depending on motives, investors' intentions can range from broad commitments, such as to make the world a better place, to more detailed commitments, such as addressing a social challenge like loneliness (IMP, 2020h).

Similar to investors, enterprises have different motives and intentions for managing and creating impact. An investor needs to understand what intentions underlying enterprises have to determine if their intentions are aligned with their own and if it will support their targeted impact goals. The intentions that enterprises or investors have can be categorised into three different categories: Act to avoid harm, benefit stakeholder or Contribute to solutions (Figure 6) (ibid.).

Figure 6. Illustrative example of an enterprises' intentions to the three types of impact: A, B or C (IMP, 2020h)

In order for investors to get a full overview of their impact and examine whether the enterprises they have invested in are - or are not - achieving the impact goals, the investors can map their intentions to specific impact goals across the five dimensions.
(Table 8) (ibid.).

Dimension	Assessment to look for...				
What	Unknown	Important negative outcomes	Important negative outcome(s)	Important positive outcome(s)	Important positive outcome(s)
Who	Unknown	*Various*	Underserved	*Various*	Underserved
How Much					
Depth	Unknown	*Various*	High degree of positive change	*Various*	High degree of positive change **and/or**
Scale	Unknown	*Various*	*Various*	*Various*	For many **and**
Duration	Unknown	*Various*	*Various*	*Various*	Long-term
Contribution	Unknown	*Various*	Likely the same or better	Likely the same or better	Likely better
Risk	Unknown	*Various*	*Various*	*Various*	*Various*
	↓	↓	↓	↓	↓
Classification of impact	May cause harm	Does cause harm	Act to avoid harm	Benefit stakeholders	Contribute to solutions

Table 8. Classifying an enterprise's impact into A, B or C (IMP, 2020h)

On reporting impact, investors can choose to provide a complete "impact report" or "impact statement" of their portfolio, where they present each enterprise together with their respective effects across the 15 impact data categories, separately. However, since investors can have multiple enterprises in their portfolio, this kind of reporting can become overwhelming with too much data. In that case, the investor can instead choose to create a consolidated "impact statement" where only data relevant to the investors' impact goals is highlighted - while still providing an appendix with all other positive and negative impacts related to each enterprise. For example, if the investor's impact goals are to generate effects on positive outcomes for otherwise underserved people, the investor would pull out the effects classified as "Contribution to solutions" from the underlying enterprises (ibid.).

3.5 IRIS+ - an Impact Accounting System

The IRIS+, released by GIIN in 2019, is a generally accepted impact accounting system used by leading impact investors for measuring, managing, reporting and optimising their social and environmental performance. Created with input from hundreds of global leading impact investors practitioners, and several of the world's leading standard setters, it provides investors and enterprises with a common understanding of how to measure and manage impact effectively and how to improve that impact over time. Furthermore, by increasing impact data credibility and comparability, and by providing streamlined and practical implementation guidance, it allows investors to focus their capital allocation decisions and drive more significant impact on the world's most challenging social and environmental issues. With all that said, IRIS+ can provide the well-needed infrastructure that will allow the impact investing industry to scale (GIIN, 2020b).

3.5.1 Thematic Taxonomy

Looking into its fundamentals, IRIS+ provides a common language for describing, assessing, communicating, and comparing impact performance by offering a simple and well-defined thematic taxonomy. The taxonomy includes generally accepted definitions of Impact Categories and Impact Themes, to which universal Strategic Goals and Core Metrics Sets are linked (GIIN, 2019b).

Figure 7. Illustration of classification hierarchy according to IRIS+ thematic taxonomy (GIIN, 2019b)

The thematic taxonomy (Figure 7) is based on classifying hierarchies with a top-down approach. It is intended to help impact investors obtain relevant and appropriate core metrics, practical implementation guidance, and resources according to their priorities and needs. It starts with the high-level Impact Category, describing to what operational activity with an economic effect which impact can be ascribed. To each impact category, there are then one or several specific Impact Themes, classified according to their superior impact category and by their social and environmental focus. The impact themes are based on macroeconomic topics or trends that investors can use to identify and evaluate investment opportunities. Following each impact theme is a list of representative and illustrative impact Delivery Models that describes the different ways that investors or enterprises can contribute to impact. Finally, are specific and universal Strategic Goals that impact investors can use to achieve established impact objectives (ibid.).

Impact Categories	Impact Themes
Agriculture	・Food Security ・Smallholder Agriculture ・Sustainable Agriculture
Air	・Clean Air
Biodiversity & Ecosystems	・Biodiversity & Ecosystem Conservation
Climate	・Climate Mitigation ・Climate Resilience and Adoption
Diversity & Inclusion	・Gender Lens ・Racial Equity
Education	・Access to Quality Education
Employmeny	
Energy	・Clean Energy ・Energy Access ・Energy Efficiency
Infrastructure	・Resilient Infrastructure

Impact Categories	Impact Themes
Financial Services	・Financial Inclusion
Health	・Access to Quality Health Care ・Nutrition
Land	・Natural Resources Conservation ・Sustainable Forestry ・Sustainable Land Management
Ocean and Costal Zones	・Marine Resource Conservation and Management
Pollution	・Pollution Prevention
Real Estate	・Affordable Quality Housing ・Green Buildings
Waste	・Waste Management
Water	・Sustainable Water Resources Management ・Water, Sanitaion, and Hygiene

Figure 8. Impact Categories and Impact Themes as defined by IRIS+ (GIIN, 2019b)

3.5.2 Core Metrics Sets

IRIS+ Core Metrics Sets are shortlists composed of a variety of different impact KPIs that are constructed by one or more standard IRIS+ metrics. The sets are backed by evidence and best practice across the industry and are used by impact investors to describe performance towards key dimensions of impact and assess the effects of their investments. Essentially each set provides investors with an overview of the approach for achieving desired goals by identifying clear and standardised KPIs, the underlying data needed to calculate each KPI, calculation guidance, and a brief explanation of the insight derived from these KPIs. IRIS+ Core Metrics Sets include standardised metrics, which support data comparability, and provide clarity of best practice regarding which impact KPI is critical for measuring progress towards different Impact Themes, Impact Goals, and Sustainable Development Goals. Supporting data comparability also allows for impact KPIs to be shared amongst investments with similar goals and themes. Furthermore, the IRIS+ Core Metrics Sets can be used to assess the effect of any investment across the Five Dimensions of Impact (GIIN, 2019c).

All IRIS+ Core Metrics Sets follow the same structure and include the same key elements. First of all, each set begins by stating the objective of intervention, describing the strategic goal that the impact investor or the enterprise seeks to achieve, such as "Increasing Housing Affordability". Thereafter IRIS+ define a particular outcome that is related to that specific strategic goal and on which the set will focus. For the strategic goal "Increasing Housing Affordability" an outcome could be "Improved Standard of Living". However, a strategic goal may be associated with several different outcomes. Hence, each Core Metric Set cites several other common outcomes that are related to the stated strategic goal. Following these broad descriptions, each Core Metric Set then addresses specific key questions by aligning these with the Five Dimensions of Impact and an additional dimension cited as the "How"-dimension. The additional dimension has been constructed to capture business processes, product or service details, and other contextual elements that are important for understanding the effects of an investment or enterprise (ibid.).

Furthermore, each Core Metric Set provides additional KPIs and metrics that investors or enterprises can add to the existing set in order to cater to specific needs. The additional KPIs and metrics also help provide a high-level understanding of other or additional possible effects, including for other affected stakeholders. Finally, the IRIS+ system allows investors

to customise each Core Metric Set. Hence, each Core Metric Set also provides investors with information on how to add relevant IRIS+ metrics or create their own custom KPIs based on IRIS+ metrics to tailor a Core Metric Set to their specific approaches and goals. An illustrative example of how a KPI is derived through a Core Metric Set is presented in 9 (ibid.).

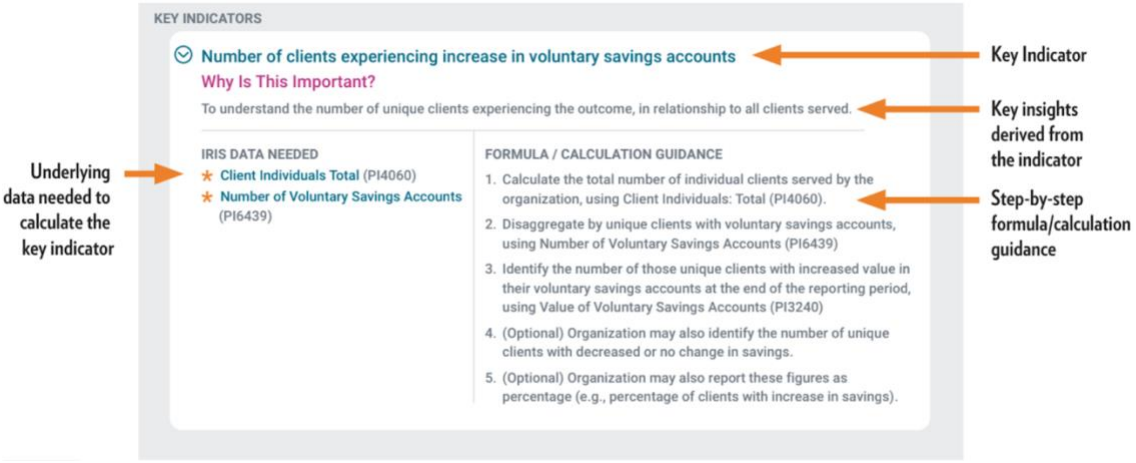

Figure 9. Visual representation of a KPI is derived according to a specific Core Metric Set (GIIN, 2019c)

3.5.3 Real Estate Metrics

Within the IRIS+ impact category "Real Estate" there are two impact themes: Affordable Quality Housing and Green Buildings. These two themes include strategic goals and delivery models that relate to housing projects, services and infrastructure, for which the associated financial cost to occupants do not jeopardise their well-being, human rights or basic needs. The themes also include strategic goals and delivery models that relate to the development and restoration of buildings in ways that minimise or reduce negative environmental impacts (GIIN, 2019b).

Currently, there are no strategic goals or core metric sets related to the Green building impact theme - this is planned for future development. However, for the impact theme Affordable Quality Housing, IRIS+ has identified four strategic goals: Improving Housing Quality, Increasing Resident Stability, Increasing Access to Supportive Services Through Housing, and Increasing Housing Affordability. An overview impact themes is provided in Figure 10, where strategic goals, outcome indicator, KPIs, methods of measuring, and impact implications are presented. Corresponding to each of the goals is then a specific core metric

set. The core metric set for the strategic goal of Increasing Access to Supportive Services Through Housing is explained in Appendix C to provide a schematic explanation for how a core metric set is constructed. All Real Estate specific metrics that IRIS+ have identified can be seen in Appendix D.

Impact Theme	Strategic Goals	Outcome indicator	Key performance index	Method of measuring	Examples of potential positive impacts
Affordable Quality Housing (Social)	**Improving Housing Quality** *- Poor-quality housing impacts peoples health, educational outcomes, and ability to earn money*	**Increased standard of living** Other outcomes related to this strategic goals are: *- Healthier childhood development* *- Improved mental health and well-being* *- Improved physical health*	**Client Satisfaction Ratio** *- How likely stakeholders are to recommend the housing to others*	Qualitative data on stakeholder persived satisfactions, commonly based on data from a representative sample of residents. For example scored by likelihood of recommending the housing to others on a scale from 0 (very unlikely to recommend) to 10 (extremely likely to recommend)	• Reduce resident exposure to airborn pollutants, harmful peast, mold, and harmful chemicals • Increase likelihood of healthy child development • Reducing the risk of certain negative helth outcomes, e.g. asthma and disease • Reduce household expenditures on electricity and fuel due to increased energy efficiency • Improved physical and mental health
	Increasing Residential Stability *- Residential instability can have deep and long-term negative effects*	**Increased standard of living** Other outcomes related to this strategic goals are: *- Healthier childhood development* *- Improved ability to pursue educational opportunities* *- Improved ability to pursue employment* *- Improved mental health and well-being* *- Improved physical health*	**Client Retention Rate** *- Ratio of the number of tenants retained from the start to the end of the reporting period*	(Number of residents at the end of the reporting period - number of new residents during the reporting period) / number of residents at the beginning of the reporting period	• Reduce the risk of eviction, which can compound childhood development problems and health, education, and emotional instability • Stronger family and community heath • Improved educational and employment outcomes • Reduced rates of homelessness
	Increasing Access to Supportive Services Through Housing *- Providing services such as employment and skills-building, health care, education programs, or social services help tenants develop the skills they need to afford housing and live independently*	**Increased Housing Stability** Other outcomes related to this strategic goals are: *- Improved ability to pursue employment* *- Improved standard of living*	**Client Retention Rate** *- Ratio of the number of tenants retained from the start to the end of the reporting period*	(Number of residents at the end of the reporting period - number of new residents during the reporting period) / number of residents at the beginning of the reporting period	• Improved physical and mental health • Reduced rates of recidivism and homelessness • Improved educational and employment-related outcomes • Improved standards of living • Reduced government spending • Improved community health and wellness
	Increasing Housing Affordability *- Cost-burdened households are often forced to choose between paying rent and paying for other critical resources like healthcare, food, clothing, and education*	**Increased Standard of living** Other outcomes related to this strategic goals are: *- Healthier childhood development* *- Improved mental health and well-being* *- Improved physical health* *- Improved ability to pursue educational opportunities*	**Client Satisfaction Ratio** *- How likely stakeholders are to recommend the housing to others*	Qualitative data on stakeholder persived satisfactions, commonly based on data from a representative sample of residents. For example scored by likelihood of recommending the housing to others on a scale from 0 (very unlikely to recommend) to 10 (extremely likely to recommend)	• Stronger family and community heath and resilience • Healthier child development • Improved educational and employment outcomes • Improved standard of living
Green Buildings (Environmental)	Planned for future development		Planned for future development	Planned for future development	Planned for future development

Figure 10. Illustration of Impact Themes related to the Impact Category "Real Estate" as described by IRIS+ (GIIN, 2019c)

3.6 Sustainability Accounting Standards Board

The Sustainable Accounting Standard Board (SASB), founded in 2011 in the US, is a not-for-profit, independent standard-setting organisation that develops and maintains a complete set of globally applicable sustainability accounting standards. Compared to other global reporting standards, the SASB standards focus on capturing industry-specific sustainability topics that are financially material - likely to have a material impact on financial performance. For this, the standards are designed to identify a minimum set of sustainability issues most likely to impact the operating performance or financial condition of the typical enterprise in an industry, regardless of location. Enterprises around the world can use the standards to identify, manage and communicate to investors sustainability information that is financially material. The standards also help investors by encouraging reporting that is comparable, consistent, and financially material, thereby supporting investors in their decision making (SASB, 2020a). The standards are used by several global organisation such as BlackRock, Nordea Asset Management, J.P. Morgan Asset Management, KKR, Rockefeller Capital Management, and Danske Bank (SASB, 2020b). In late 2019, 120 companies were confirmed using the standards, 76 of which were based in the US while 44 were based oversea. Furthermore, according to recent numbers revealed by SASB, 72 per cent of the public reports that use SASB standards make use of some, but not all, of the industry-specific recommendations. In comparison, 28 per cent features all of the SASB's recommendations. The majority of enterprises that uses the SASB standards include it in their sustainability report, but some include it in other reports such as their annual report (Ashwell, B., 2019).

"Sustainability accounting reflects the governance and management of a company's environmental and social impacts arising from production of goods and services, as well as its governance and management of the environmental and social capitals necessary to create long-term value." (SASB, 2020c)

After working together with a large investor advisory group for six years, conducting extensive research and collecting market input from several industry experts, the SASB standards was published in late 2018. Following a thematic schema, SASB has developed a complete set of 77 industry-specific standards where each industry is categorised under one

of 11 specific sectors. For each industry-specific standard, there are a set of financially material sustainability topics and their associated metrics for the typical enterprise in that industry. For example, the industry standard for "Real Estate" is stated under the "Infrastructure" sector. Under this sector, standards for industries such as "Real Estate Services", "Waste Management", and "Home Builders" can also be found (SASB, 2020a). The investor advisory group, consisting of volunteer industry experts has a vital role to play in SASBs' standard-setting process. The group advise SASB on emerging issues and help with evaluating the topics, metrics, and technical protocols included in the industry-specific standards by providing feedback on the extent to which the content of the standards adheres to concepts, principles, and definitions that guide SASB in their standard-setting process. These concepts, principles, and definition are defined by a framework developed by SASB, which is used in their standard-setting work (Figure 11) (SASB, 2020d). The framework explains the fundamental approach for selecting standards that are based on the three objectives; financially material, cost-effective and decision-useful, by stating that the standards must be evidence-based, industry-specific, and market-informed. Furthermore, the framework describes what principles and criteria to consider when selecting sustainability topics and accounting metrics, and how the standards should be presented and what standardised elements they need to include (SASB, 2017).

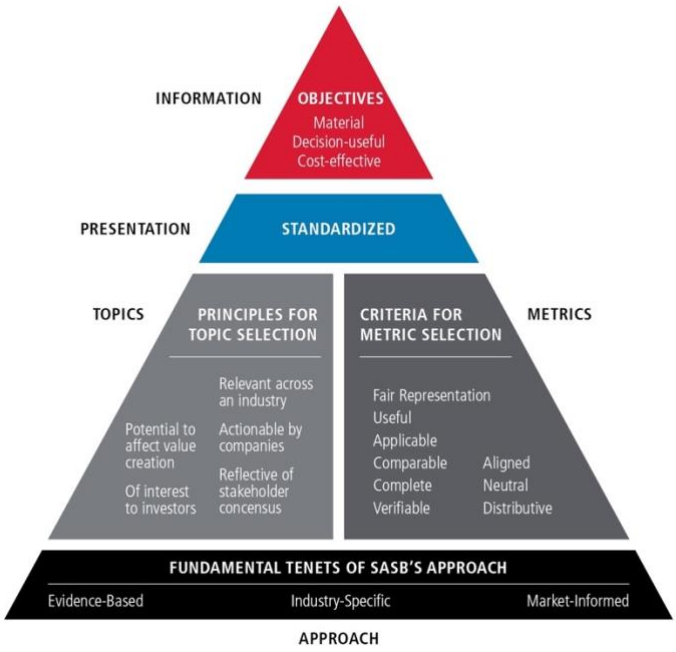

Figure 11. Illustration of the framework that guides SASB in their approach to setting standards (SASB, 2020e)

All of the SASB industry-specific standards follow the same structural representation where disclosure topics, accounting metrics, technical protocols, and activity metrics are presented. First are the disclosure topics which are a set of industry-specific sustainability topics likely to constitute material information. For each topic, there is a brief description of how management and mismanagement of that topic may affect value. Accompanying each topic is a set of specific accounting metrics, either quantitative and/or qualitative, intended to be used to measure performance on each topic. Each accounting metric is followed by a technical protocol that guides how to define, use, implement and present the metrics. Lastly are the activity metrics which is a set of metrics that quantify the scale of a company's business and are intended to be used in conjunction with the accounting metrics to normalise data and simplify comparison (SASB, 2018).

3.6.1 SASB standards for Real Estate

SASB has identified the following industry-specific sustainability topics for the Real Estate industry; Energy Management, Water Management, Climate Change Adoption, and Management of Tenant Sustainable Impact. The following section will give a brief description of how management and mismanagement of each topic may affect value. Figure 12 explains the standard in more detail through the dimensions of topic disclosure, accounting metrics and activity metrics (SASB, 2018).

Energy Management. Real Estate assets consume a significant amount of energy, primarily from water or space heating, air-conditioning, ventilation, lighting, and the from use of equipment and appliances. Generally, grid electricity is the predominant form of consumed energy, though on-site fuel combustion and renewable energy are also common forms. The energy cost may be borne by the real estate owner or the property occupants; either way, energy management is a significant industry issue. When the real estate owner assumes direct responsibility for energy costs, such costs often represent a high operating cost. In this scenario, the importance of energy management becomes more clearly because of all the risks related to energy consumption such as energy pricing volatility, the general trend of increasing electricity prices, and energy-related regulations. Overall, real estate owners effectively managing energy performance for their assets may experience reduced operating costs and regulatory risks, as well as increased demand from tenants - all of which drive revenue and asset value appreciation. Additionally, improving the energy performance of

assets is highly dependent on the several factors such as property type and location, local building codes, target tenant market, physical and legal possibilities to distribute renewable energy, and ability to measure consumption and performance of existing building stocks (ibid.).

Water Management. Buildings consume a significant amount of water in their operation through water fixtures, building equipment, appliances and irrigation. Operating costs resulting from water consumption may represent high costs for the property. Companies in the industry can be solely responsible for the property's water costs, even though it is common to allocate all or portions of these costs to tenants. Companies that effectively manage their assets water efficiency may experience reduced operating costs and regulatory exposure, as well as increased tenant demand - which will increase revenue and asset valuation. Furthermore, given long-term historical increases in water costs and general expectations that such costs will continue to increase due to overconsumption and constrained supplies resulting from population growth, pollutions, and climate change, the importance of water management has increased (ibid.).

Climate Change Adoption. Climate change affects companies in the real estate industry through extreme weather events and changing climate patterns. How a company incorporate ongoing assessments of climate change risks, and the adaption to such risks, into its business model, is likely to become more connected to the company's long-term value. Investment strategies with assets located in exposed and vulnerable regions may have increased needs around risk mitigation and business model adaptation to climate change. Some several strategies and actions can be adapted to mitigate such climate change risks. Besides insurance, other risk mitigation actions include improvements to physical asset resiliency and lease terms that transfer risk to the tenants, even though such actions can create costs and risks for real estate companies. In order to ensure long-term growth and protection of shareholders value, companies must implement comprehensive climate change adaptation strategies, account for trade-offs between such strategies and integrate estimated costs and benefits over the long-term (ibid.).

Management of Tenant Sustainable Impact. Real estate assets generate significant sustainability effects, including waste generation and resource consumption such as energy and water. The assets also affect tenant health through indoor environmental quality. While

companies in the industry are the ones that own real estate assets, it is the tenant operations of those assets that truly drive sustainable impact. Such operations consume a significant amount of energy and water, generate waste and affect the health of those living, working, shopping or visiting the properties. Even though tenant operations and activities often generate such sustainability effects, real estate owners can influence those effects. Managing tenant sustainability effects may among other strategies include mitigating the problem of split incentives by aligning both parties' financial interests with sustainability outcomes, establish systematic measuring and communication of resource consumption data, and create shared performance goals. By effectively managing tenant sustainability effects - specifically related to water, energy and indoor environmental quality- real estate owners may experience outcomes such as an increase in asset values, increased tenant demand and satisfaction, and reduced operating costs (ibid.).

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE
Energy Managemnt	Energy consumption data coverage as a percentage of total floor area, by property subsector	Quantitative	Percentage (%) by floor area
	(1) Total energy consumed by portfolio area with data coverage, (2) percentage grid electricity, and (3) percentage renewable, by property subsector	Quantitative	Gigajoules (GJ), Percentage (%)
	Like-for-like percentage change in energy consumption for the portfolio area with data coverage, by property subsector	Quantitative	Precentage (%)
	Percentage of eligible portfolio that (1) has an energy rating and (2) is certified to ENERGY STAR®, by property subsector	Quantitative	Percentage (%) by floor area
	Description of how building energy management considerations are integrated into property investment analysis and operational strategy	Discussion and Analysis	n/a
Water Management	Water withdrawal data coverage as a percentage of (1) total floor area and (2) floor area in regions with High or Extremely High Baseline Water Stress, by property subsector	Quantitative	Percentage (%) by floor area
	(1) Total water withdrawn by portfolio area with data coverage and (2) percentage in regions with High or Extremely High Baseline Water Stress, by property subsector	Quantitative	Thousand cubic meters (m^3), Percentage (%)
	Like-for-like percentage change in water withdrawn for portfolio area with data coverage, by property subsector	Quantitative	Percentage (%)
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a
Climate Change Adoption	Area of properties located in 100-year flood zones, by property subsector	Quantitative	Square feet (ft^2)
	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	Discussion and Analysis	n/a
Management of Tenant Sustainablity Impacts	(1) Percentage of new leases that contain a cost recovery clause for resource efficiency-related capital improvements and (2) associated leased floor area, by property subsector	Quantitative	Percentage (%) by floor area, Square feet (ft^2)
	Percentage of tenants that are separately metered or submetered for (1) grid electricity consumption and (2) water withdrawals, by property subsector	Quantitative	Percentage (%) by floor area
	Discussion of approach to measuring, incentivizing, and improving sustainability impacts of tenants	Discussion and Analysis	n/a

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE
Number of assets, by property subsector	Quantitative	Number
Leasable floor area, by property subsector	Quantitative	Square feet (ft2)
Percentage of indirectly managed assets, by property subsector	Quantitative	Percentage (%) by floor area
Average occupancy rate, by property subsector	Quantitative	Percentage (%)

Figure 12. Sustainability topics, accounting metrics, and activity metrics for the Real Estate industry as defined by SASB (SASB, 2018)

3.7 Theoretical Summary

The theory includes topics addressing the fundamentals of impact investing as well as best practices, with a focus on the real estate sector. By first introducing impact investing and impact investing within the real estate sector, specifically, the foundation for the thesis is established. The first two chapters provide the groundwork necessary to describe and explain the investment strategy that is impact investing. Key topics include elements of impact investing, practices for carrying out impact investing, and how the strategy applies to the real estate sector. The following chapters present comprehensive material on different segments of impact investing. A wide range of material is covered, including frameworks and best practices on how to impact invest. The latter part of the theory addresses the purpose of identifying relevant measures to apply when impact investing.

Chapter	Key Takeaway
3.1 Impact Investing	Impact investing is investing with dual intentions: enivornmental and/or social impact alongside financial return
3.2 Impact Investing in the Real Estate Sector	Impact can be created in spheres including housing affordability, green buildings and sustainable communities
3.3 UN Sustainable Development Goals	The UN SDGs help target problems to be solved and align organisations and efforts
3.4 Impact Management Project	IMP provides a frramework for impact analysis as well as guiding on how to manage and measure impact
3.5 Impact Reporting and Investment Standards	IRIS provides impact reporting standards
3.6 Sustainabilty Accounting Standards Board	SASB provides sustainability related reporting standards

Figure 13. Illustration of key theory takeaways

Chapter 3.1 covers the fundamentals on impact investing; What it is, how it is done, who is doing it, and why is it done. Summarising, impact investing is investing with dual intentions: generating positive social and/-or environmental outcomes alongside financial return. The positive social and/-or environmental outcome should solve a problem for an underserved group. The strategy requires intentionality, impact analysing, managing and measuring as well as transparent and credible reporting - all to enhance the purpose of the strategy. The strategy is mainly carried out by sophisticated financial investors, and the motivation is, as the strategy itself, twofold. Naturally, investors engaging in the strategy seek the greater good for society and the world at large, however, large capital inflows to sustainable investing

strategies like impact investing have been reported - increasing the financial incentives to be an impact investor.

Following the fundamentals presented in chapter 3.1, chapter 3.2 deep dives into the current scene on impact investing in the real estate sector. Investment firms have identified that impact can be generated notably relating to the Sustainable Development Goals (SDGs) #8 (Decent Work and Economic Growth), #11 (Sustainable Cities and Communities) and #13 (Climate Action). Impact creation can take form in mainly three identified domains: Affordable Housing, Green Real Estate and Sustainable Communities.

Chapter 3.3 thereafter present the Sustainable Development Goals, a collection of 17 interconnected global challenges developed by the United Nations. The SDGs are often used to clarify and target which problem an initiative or company are trying to address. For impact investing, the SDGs provides a clear and well-known framework useful for targeting impact and aligning efforts as well as explaining impact when reporting.

Following the SDGs and an introduction on how to target impact, the Impact Management Project (IMP) and its Five Dimensions of Impact are presented (chapter 3.4). IMP is a forum for building shared understanding on how to manage and measure impact and is supported by some of the world's leading standard setters as well as over 2000 enterprises and investors. By gathering information of best practises, experience and knowledge, shared through the forum, the IMP developed the Five Dimensions of Impact - a framework for analysing impact. The Five Dimensions framework forces the user to thoroughly analyse its business, operations and effects of it and thus outline its potential impact. The framework is generally used by investors to target and manage impact and often constitute the foundation of impact strategy. The Five Dimensions include the analysis of:

- **What** outcomes occur and how important are the outcomes to the people (or planet) experiencing them
- **Who** experiences the outcome and how underserved are the affected stakeholders
- **How Much** of the outcomes occurs across scale, depth and duration
- What is the investor or enterprise **Contribution** - would the change likely take place anyway
- What are the **Risks** of the impact not occurring as expected

Lastly, two of the most well-established and common sustainability/impact accounting standards are reviewed. IRIS+ (chapter 3.5) is an impact accounting system used and created by leading impact investors, and SASB (chapter 3.6) is an independent standard-setting organisation which provides sustainability accounting standards. The accounting systems present general measurements and standards as well as processes for identifying and establishing accounting metrics and indicators. Impact investors can look to the accounting systems for standards and metrics or develop strategies on how to measure and report their specific impact generated. Following the focal point of the thesis, residential real estate, the emphasis was put on real estate standards and metrics.

The theories presented in this chapter provides the foundation and the guidelines for addressing the thesis purpose and objectives. The theory is additionally used for, firstly collecting empirical data in a relevant and structured manner, and then as a framework for which the data will be analysed and structured in a way that addresses the thesis purpose and objectives. As mentioned in the introduction to the theory chapter, mainly theory from chapter 3.1 and 3.2 will address the thesis first purpose (to describe and explain impact investing), while chapter 3.3-3.6 have an angle towards identifying measures to apply**.**

4. Empirics

4.1 Impact Investors

In order to add to the secondary sources on impact investing (found in the Theory chapter), interviews were conducted to add more colour to the investment strategy and how it is conducted in real life. As not a lot of investors would necessarily categorise themselves to be impact investors, interviewees were chosen based upon having investment strategies that could resemble impact investing.

All firms operate as private equity investors, meaning they invest in mainly private companies using a portion of debt to finance the investment and more often than not become majority owners of the company. Having a majority stake entails for the investor to control and govern the company - which means that the interviewees could elaborate on how one can manage impact. Lastly, the investment scope of these firms includes targeting more mature businesses – which is similar to the case company Brunswick.

4.1.1 Nordea Impact Private Equity

4.1.1.1. Introduction

Karim Sayyad is a Senior Analyst at Nordea Asset Management working in the Impact Private Equity group. The group carries out impact investments in a private equity manner. Sayyad's operational role and work include carrying out impact and ESG-analysis on portfolio companies and investment opportunities. Sayyad was interviewed to bring the perspective of Nordea as an impact investor and specially to discuss how the firm target, measure, assess and communicate impact.

At the time of the interview, the firm had not carried through any investments. Therefore, the information regarding the firm's investment approach can be regarded as their strategy, rather than their exact modus operandi for investing.

4.1.1.2. Investment Approach

The firm integrates its impact analysis from the start when screening investment opportunities. Either they evaluate what scale and expansion a potential financially interesting target could produce in terms of impact, or they focus on thematically interesting sectors for impact and search for financially interesting opportunities. The importance of impact is fully integrated when assessing investments. The firm defines the impact they are targeting as a positive effect from an investment that is solving a current problem. This means that businesses benefiting society but not necessarily targeting a current problem will not qualify (Sayyad, 2020).

Since companies may affect the society positively or negatively, direct or indirect, in many different ways, the impact investor needs to determine what impact/-s they should focus on in order to maintain efficiency and concentrate efforts. For Nordea this means a thorough analysis of the company and its impact. Different frameworks and methods are used, however, foremost The Five Dimensions of Impact by IMP (See Theory chapter 3.4) since it has proved to be appropriate and is also said to be a growing standard in the industry. Thereafter, different "impacts" are ranked by its potential to affect the most, across scale, depth and duration, whereupon the top alternatives are chosen. Furthermore, Sayyad states that it is important that what generates the impact needs to be integrated into the core of the company business model. Given the natural difficulties of measuring and assessing certain types of impact, the feasibility of tracking a specific impact is also part of the evaluation (ibid.).

In order to monitor the impact of the firm's investments, everything is naturally measured and then communicated in a clear and efficient fashion. Measurements are made in a different form; the objective justifies the means. This entails that some measurements are made quantifiable, such as calculating carbon dioxide emission equivalents, while others are made through a more qualitative approach, such as through interviews with relevant stakeholders (employees, customers etc). To measure effectively, different KPIs are used. A set of overall KPIs are used to measure and communicate impact on an aggregated portfolio level, however, every investment also has its own set of 4-5 KPIs. The firm tries to find suitable KPIs to measure impact from IRIS+ (See Theory chapter 3.5) or another general standard like SASB (See Theory chapter 3.6). By using this approach, Nordea ensures the KPIs to follow some sort of standard which is believed to simplify their work with the impact long-term.

Sayyad states that if there is no KPIs relevant for their impact measurement, they can produce their own KPIs, however, they would rather avoid it to ensure a high level of communicability and comparability to its measurements as they see standards in this area as something of growing importance. The impact is then reported through establishing a year 0 baseline value - and then following up each year on the development versus the baseline (ibid.).

4.1.2 Summa Equity

4.1.2.1 - Introduction

Anna Ryrberg, director at Summa Equity, is part of Summa Equity's investment team with responsibilities stretching across the whole investment cycle. Summa Equity (Est. 2016) is a Nordic private equity firm operating with an impact investment approach, investing in companies that are addressing some of the global social and environmental challenges. Summa was among the first private equity firms to use the UN SDGs as a framework when evaluating new investments. The firm invests within three themes: *resource efficiency, changing demographics,* and *tech-enablers* (Summa, 2020). Ryrberg's operational role and work includes screening of new investments, leading due diligence and transaction processes, and supporting portfolio companies in their value creation. Ryrberg was interviewed to bring insight into Summa's impact investment approach.

Summa Equity does not explicitly state themselves as being impact investors, however, the authors evaluated the company as a valuable source on the subject, due to the closely related investment approach.

4.1.2.2 - Investment approach

As mentioned before, the firm does not state themselves as being impact investors, however, their investment strategy is based on the concept that better impact is closely related to better performance and financial return. Using the SDGs, the firm seeks to invest in companies that fits into one or several of the firms three investment themes and evaluate such potential investments according to the investments alignment with the SDGs and the associated value creation opportunity - while at the same time understanding the potential ESG risks related to different climate and social scenarios. With a proactive sourcing strategy, the firm first identifies sectors and companies they believe are well-positioned to grow from a SDG perspective, either because of their position in the industry or because of their internal resources and capabilities. Secondly, when target companies have been identified the next step is to identify what SDG related challenges the company is solving, how competitive and differentiated they are in solving those challenges and evaluating the company's ability to scale (Indahl, R., 2020). Therefore, defining the degree to which an investment aligns with the firm's investment strategy is of great importance in the screening process.

For example, Ryrberg states that the firm does not invest in cases where there is no clear SDG angle. Without a clear SDG angle, investments are judged not having the potential of generating financial and impact related returns. This means that Summa will turn down opportunities despite the traditional investing metrics (e.g. financial profile, market position, management team) being positive (Ryrberg, 2020).

According to Ryrberg, Summa always has a hypothesis about what will be relevant to measure when making an investment. However, to know beforehand what a relevant measurement for a specific investment is difficult. Therefore, when an investment has been made, initial meetings with management and workshops are arranged with the company. The objective is to identify which goals and underlying goals of the SDGs that are relevant for the company, for their customers, and for their suppliers. Suitable measurements are the ones that are understandable, communicable, relevant for the company and its stakeholders, and align with the company's strategy. Either way, the measurement must be in line with what drives performance, whether it is impact focused or not - in terms of the investment process (ibid.).

The firm communicates the impact of their investments by using both qualitative and quantitative measurements. They report two to three company specific KPIs for each of their portfolio companies and complement it with approximately three stories told where Summa highlights significant improvements made by the "success" company. Each portfolio company have to keep track of the KPIs that have been set by the firm and also include "impact stories" if possible to its material. Ryrberg stresses the importance of keeping the KPIs as simple as possible and not using more than two to three KPIs per portfolio company in order to not make it confusing or difficult to understand and to direct focus to measuring what matters. Furthermore, she stresses that the KPIs should showcase the financial and impact-related aspects of an investment so that it aligns with the firm's strategy and so that the investments objectives become clear for both external and internal stakeholder (ibid.).

In addition to explaining the overall work and approach that Summa Equity has towards impact investing, Anna stresses the importance for companies to integrate sustainability into their organisations and continually evaluate the ESG risks associated with their operations.

4.1.3 Alder

4.1.3.1 Introduction

Åsa Mossberg works as a Sustainability Manager and Keiward Pham as an Investment Director at Swedish private equity firm Alder (Est. 2011). The firm's approach is to invest in sustainable technology companies. Mossberg's role entails leading the firm's sustainability work, including analysis and steering of portfolio companies on ESG-related topics. Pham's work includes sourcing, company and transaction analysis of new investments/divestments as well as operational work with current investments. Mossberg and Pham were interviewed to bring the perspective of Alder as a sustainability-focused investor and specially to discuss how they evaluate sustainability in regard to targeting, measuring, assessing and communicating it.

Alder is not an impact investor, however, given their experience and successful track record in investing with a focus on sustainability, the authors deemed Alder to be a credible and suitable source to add value to the empirics of the project.

4.1.3.2 Investment Approach

Alder targets companies that are technology-based and with a sustainability-related business. Most of the firm's portfolio companies are active in the environmental technology sectors, however, investments do not explicitly need to be so. The firms aim to invest in companies that have a competitive advantage based on sustainable characteristics. One example could be a company providing solutions to safely process metal at low cost while enabling the recycling of acid waste. Simplified, safe and cheap metal treatment can be viewed as the core offering and recycling of acid waste from the process as a sustainable based competitive advantage. This investment approach means that the firm does not target a specific impact, but rather sustainable business models (that are technology-based) in general (Mossberg & Pham, 2020).

The company does, however, pursue rigorous measurements on sustainability metrics. These metrics include energy and water usage, waste recycling, diversity, absence due to illness, employee satisfaction and more. In addition to these more general metrics, Alder measures more specific measurements related to each portfolio company's business. Following on the example from above, this could be measuring how much acid waste has been recycled (and

then compared to how much would have been recycled if not using the Alder company's technology). The measurements create something similar to a scorecard on the current level of sustainability-engagement the specific company has. The scorecard, Mossberg states, is very valuable. It enables for Alder to identify what can be improved with the company and also to track development. As the nature of the business it to buy and sell companies, the scorecard is also stated to be valuable in sales processes as it provides thorough and clear reporting of sustainability metrics which, intuitively, is valued by a potential buyer investing in sustainability-enabled businesses (ibid.).

Every year, the company publishes a sustainability report. The report aggregates information about the portfolio companies and tells what their business is and how they are doing, with a great emphasis on sustainability work. All businesses and their operations are mapped towards how they contribute to the UN's SDGs. The reporting is done on an aggregated portfolio level as well as in-depth reporting of each portfolio company. Data and efforts are presented both qualitative and quantitative (Alder, 2020).

4.2 Residential Real Estate

Interviews were conducted with professionals working with sustainability within the real estate sector. The purpose was to gain insight from knowledgeable and experienced source on how real estate companies think and operate with sustainability and mainly what effects (impact) firms can see happen and also identify as desirable. Several of the firms carry out real estate practice across several business segments (residential, commercial, societal), however focal point was everything that would concern residential real estate.

The interview questionnaire for real estate professionals was based on IMP's Five Dimensions of Impact. The framework was chosen since it is well-established and well-structured thus providing the authors with a proper tool for analysing impact efficiently and in a relevant manner.

4.2.1 Balder

4.2.1.1 Introduction

Camilla Holten is Head of Sustainability at Fastighets AB Balder, one of the largest real estate companies in Sweden with properties all across the Nordics, Germany and the UK. The company is publicly listed and owned by mainly CEO Erik Selin.

Holten was interviewed to give the perspective of Balder and insight into the company's sustainability operations and experience from it.

4.2.1.2 Sustainability and Impact

As Head of Sustainability at Balder, Holten's operational role is to coordinate efforts regarding social, environmental and economic sustainability. Balder owns different types of real estate; residential and commercial however, all are managed with the same long-term perspective. For the company's sustainability efforts, this is key since it enables for long-term projects and time for effect and change to take place (Holten, 2020).

For Balder's residential practice, the main focus is to enable safeness and well-being. Safeness enhanced through improving the physical environment (lights, open spaces), presence through having people around (enabled by coordinated nightly walks by tenants) and company personnel hired locally to enhance the company presence and responsibility

among others. Well-being efforts can include the outside environment (parks, playgrounds), well-functioning waste management, tenant participation in developing the area (through meetings and surveys), education initiatives such as homework aid, food festivals and activities for children and youths during spare-time and school breaks. Furthermore, Balder tries to hire locally from its residential areas and also provide summer jobs for youths. To determine what efforts are desirable and needed, Holten emphasises the importance of people on the ground (i.e. company personnel physically present in the residential area) and cooperation with tenants, organisations, local companies, schools and counties. The perspective of both tenants and the other constituents of the community helps ensure Balder partakes in creating a better and more enjoyable society (ibid.).

As a lot of effects are subjective and difficult to measure, Balder applies different techniques to track development. The best and most important insight is tenant dialogue, followed by measures like spending on vandalism and movement in the area (with the thesis that more people outside indicating well-being and safeness). The impact of sustainability efforts is difficult to track since it applies to all of the population present in the community and targeted areas, safeness and well-being, are subjective and personally experienced feelings. In general, tenants prioritise safeness followed by well-being. Especially initiatives like activities (trips, social gatherings, food festivals), neighbourhood patrol (organised nightly walks) and homework/education support. Environmental efforts are often endorsed and liked, however not as prioritised. Commercial tenants in the area are more prone to prioritise environmental aspects such as certifications in order to ensure beneficial green financing (ibid.).

Lastly, Balder tries to apply a similar approach to working with sustainability to each residential area. Focal points are safeness, well-being, children and youths and employment. It is rather the specific initiatives or efforts that are different per each area, depending on the local possibilities and resources. By having the same general approach, Balder can work efficiently and create a better standard (ibid.).

4.2.2 Rikshem

4.2.2.1 Introduction

Carolina Nordling is a Development Strategist, focusing on social sustainability and "neighbourhood development", at Rikshem, one of Sweden's largest real estate companies. Rikshem has some 30 000 residential apartments across the whole country (Riskhem, 2020). The company is owned by pensions funds AP4 and AMF Pensionsförsäkringar.

Nordling was interviewed to give the perspective of Rikshem and insight into the company's sustainability operations and experience from it.

4.2.2.2 Sustainability and Impact

The core of Rikshems residential property business is to create safe and attractive areas where people *want* to live, not just have to live because it's the most viable option. To do this, the company works with neighbourhood development where the perspective as to how their property development and management affects the larger area. One of the cornerstones to this strategy is to discourage the "Success Paradox" (as described in the List of definitions). The need springs from historical social sustainability work which tended to be quite individually focused, enabling for individuals to grow - but resulting in residential areas to lag behind. Thus, focusing on neighbourhood development to enable social stability and personal growth is a cornerstone of Rikshem's vision (Norlding, 2020).

Enabling social sustainability can give two-folded gain - development of the people for society and increased valuation of assets for Rikshem. The company believes in working with several aspects of social sustainability to create positive spirals. It can be applying measures which help battle segregation, crime-rates, unemployment as well as enabling better education. From Rikshem's perspective, all this can be helped through thoughtful property development and management. For Rikshem, main focuses are to enhance neighbourhoods that contribute to the feeling of safeness and well-being for their tenants as well as enabling personal growth. Some initiatives that have been taken to enhance these social factors are (ibid.):

- Local collaboration with tenants, organisations, schools, police, counties etc. to constitute a common view of how the residential area should be developed. This

highlights the importance to get people involved in creating and developing their residential area to create greater feelings of belonging and well-being.

- Increase activity on the bottom floor of residential buildings. This can be creating common areas, space for business operations, elderly care and/or apartments. It's done to increase throughflow of people which increases safeness. Enabling companies to settle in can improve the area with the service/business provided as well as open up for job opportunities.
- Change in composition of apartments within residential areas. By creating different sizes and types (rental vs ownership) of residences, tenants can be allowed to grow and change their living situation within their residential area. This can diminish the "Success Paradox" effect for example.

Nordling emphasises that stakeholder dialogue is key to identify where and how Rikshems operations can contribute and make a difference. By getting tenants and residents involved in developing the area and decision-making processes, a sense of belonging and ownership can grow, and people will themselves see to it, to a greater extent, that the area is safe and a place for well-being. Nordling states its related to discouraging the Broken windows theory (as described in the List of definitions). The company have, for example, recorded lower levels of vandalism towards areas where tenants have been involved in the design of the area and its characteristics (specifically to art) (ibid.).

Other stakeholders, such as the owners, have broader demands related to Rikshem being top of class within sustainability. To Rikshem, this provides them with the possibility to work long-term and establish lasting principles and effects when working with neighbourhood development. For example, the company emphasises the importance to develop existing residential areas. A lot of effort and projects are directed into development projects where Rikshem means that developing established neighbourhoods is a key, and often underestimated, feature in improving the whole community (ibid).

To measure and assert Rikshem's contribution to positive social effects, the company works with different ways of measuring. Rikshem carries out continuous questionnaires on safeness and well-being with tenants, cooperation with foundations to establish safeness-certifications, physical tests with tenants where tenants are asked to move around the area with buttons and

click to register areas lacking safeness and more. Furthermore, socio-economic factors are monitored for the neighbourhood (ibid.).

Lastly, compared to social sustainability, the real estate industry has come far in working with environmental sustainability and has identified several ways for reducing negative environmental effects. The majority of Swedish real estate companies are currently developing and improving within this area and have incorporated developing real estate environmentally sustainable as a part of their strategy. Therefore, real estate companies need to follow this trend and improve and develop environmental solutions to remain and increase its competitiveness in the market (ibid.).

4.2.3 Stena Fastigheter

4.2.3.1 Introduction

Cecilia Fredholm Vaarning is Chief Sustainability and Communications Officer and part of the executive team at Stena Fastigheter. Stena is one of Sweden's largest property owners with some 25 000 residences across mainly Stockholm, Gothenburg and Malmo (Stena, 2020). The company is privately held, owned primarily by the Olsson family, and focuses on long-term property management and development.

Fredholm Vaarning was interviewed to discuss the perspective and experience from Stena's sustainability work and the effects from it, environmentally and socially.

4.2.3.2 Sustainability and Impact

Stena is a family-owned real estate company, which is an important feature for their work with sustainability. The ownership enables the company to really focus on long-term value creation across the board – including sustainability work. As sustainability and the effects from it are usually unfolded long-term, it is crucial with a strategic vision and a company culture that allows for effects to take form. Sustainability work is not necessarily something that needs a lot of budgeting, but time, effort and consideration which is deeply rooted and integrated in the core of the company business model. This enables greater long-term effects and credibility for the company's operations (Fredholm Vaarning, 2020).

Within social sustainability, Stena works with Relationship Management, which is the firm's operations method to create an area surrounding the housing where people can thrive and feel safe. The work spans across mainly four areas: safeness, work, schooling and spare time [activities] (Stena, 2020). In general, the firms' social sustainability work relies on continuous dialogue and cooperation with residents, schools, companies and other participants of the local communities of which their properties are in and identifying in what ways can Stena be helpful in creating a better, safer and more enjoyable environment for everyone in the space (Fredholm Vaarning, 2020).

Safeness is a key aspect in all development and management of the firm's properties. It affects all the people inhabiting areas where Stena has properties, residents as well as people who work there or pass by. To ensure Stena enables safe areas, the company carries through

thorough and recurring reviews with the residents to identify problems, discuss solutions and identify any other resident demand. Safeness can be measured in several ways, some of them are tenant dialogues and surveys (where Stena uses the sector standard AktivBo among others), measuring costs related to vandalism or looking at the average length of stay for tenants(ibid.).

Considering the work vertical of the firms' Relationship Management, Stena wants to enable companies to establish in the area of their properties as well as support residents in obtaining employment. For example, the company hires youths from their residential-areas to work for them during the summers – creating job opportunities for their resident youths. The firm also collaborates with neighbourhood schools. The greatest, yet unusual, example is in Fisksätra where Stena has teamed up with school operator Viktor Rydberg to take over management of a local high school (a school which was struggling in terms of quality and KPIs such as student inflow). This enables Stena to ensure the neighbourhood can have access to quality education for their youths. Other ways of working with schooling is done by providing premises for assisting with schoolwork such as homework. Lastly, the spare time section of Relationship Management includes Stena cooperating with local associations to enable activities for mainly children and youths, but also other inhabitants (ibid.).

Environmentally, Stena has a goal of halving its carbon footprint until 2030. Realising this is done through renewable energy in their housing (which has been implemented since 2010), working with resource efficiency, having a company car fleet existing of electric vehicles. During the development of properties, environmental considerations are especially prioritised: choice of materials and circular thinking can have a great long-term impact. Although environmental features such as eco-labels or green leases are not a top priority for tenants, it's more important for commercial partners and buyers of properties as these labels can enable better financing (green financing) (ibid.).

4.2.4 Sveafastigheter

4.2.4.1 Introduction

Harry McNeil is Head of Marketing Communication and Sustainability at Sveafastigheter. Sveafastigheter is a Swedish property developer highly focused on sustainability and creating greater societies through thoughtful property and urban development. The firm has some 500 complete apartments, 500 in production and 3000 contracted (Sveafastigheter, 2020).

McNeil was interviewed to discuss the perspective and experience from Sveafastigheter's sustainability work and the effects from it, environmentally and socially.

4.2.4.2 Sustainability and Impact

Sustainability-based real estate development is the very core of Sveafastigheter's business model. The company has a long-term focus and develop and manage real estate that contributes to a growing, including and sustainable society (Sveafastigheter, 2020).

Speaking of sustainability and the impact possible from real estate, McNeil states that the environmental part is less complex than the social one. Environmental aspects of sustainability are about reducing carbon footprint through materials, building techniques, installing solar power or other smart energy management solutions. The social part, on the other hand, McNeil claims is 90% unique for each project depending on the location and the surroundings. Social impact contributing to solving local problems and bring forth improvement (McNeil, 2020).

Zooming out, Sveafastigheter has identified three areas (or pillars) of social sustainability that are especially important. These are (1) safeness, (2) codetermination and participation and lastly (3) possibility to develop as human beings. (1) safeness can be enhanced through physical changes to areas as reducing unsafe roads, illuminating pathways, creating lively bottom floors and also through enabling collective gatherings and reducing loneliness. (2) codetermination and participation are about engaging tenants in developing the area and make sure that needs and requests can be approached - engaging tenants increases well-being. (3) entails helping to facilitate tenants to develop. It includes many aspects, for example enabling for people to move within a residential area and reduce overcrowding (through different housing offerings in terms of size, type and ownership structure), enabling for

proper education (through homework aid, study areas) and enabling occupation by making sure companies can operate in the area. In short – all things that help people grow as human beings (ibid).

To improve sustainability, one needs to understand the stakeholders and their needs. Tenants are often more focused on what's in their direct surrounding, focusing on "the small world". This can be feeling safe in their apartment, bike room, the cellar and the staircase as well as how much money is left after rent each month. Counties, being Sveafastigheter's main constituents, on the other hand, focus outward and see to the safeness between houses and districts. This is natural since the county is building a city rather than just a residential area. Environmental standards are not as sought after from tenants in comparison to investors and hirers. As a developer and manager of these properties, it is important to see to all these demands and needs and prioritise to make the greatest gain for all (ibid.).

Developing with care is of uttermost importance since the effects of building a residential area long-lasting, downside risks may affect tenants and residents' years ahead. One example is Miljonprogrammet - a huge effort to solve the problem of housing shortage led to unintended lack of living space and segregation. Today, the problem is highly complex, and many people inhabit residencies that are not well thought through. Since there still is somewhat of a housing shortage, making large changes to the area is difficult as people need a place to live. This highlights the importance of continuous evaluation of the residential areas as well as acting for change to take place (ibid.).

Different methods are used to trace the effects of Sveafastigheter's efforts in creating sustainable residential areas. Questionnaires regarding tenant well-being are common and of uttermost importance to gain the tenant perspective. Other measurements that can be taken into account are looking at crime rates in the area, vandalism costs, relocation of tenants, sickness leave, life expectancy, unhealthy rates and more. These data points help identify where efforts should be directed and if change is taking place (ibid.).

5. Summarising and Categorising of Theory and Empirics

In this chapter, data from theory chapter 3.3-3.6 and empirics collected from investors is first summarized and categorized according to the thesis objectives. The motive is to present valuable insight into impact analysis and impact investing as an investing strategy. Data from theory and empirics collected from real estate professionals will then be summarized and categorized according to its relevance to the residential real estate sector and the Five Dimensions of Impact. The motive is to examine best practices of measuring and reporting impact as well as identifying what impact can be created from the specific sector.

5.1 Impact Investing

5.1.1 Identifying Target Outcomes

The foundation of assessing impact is identifying what outcomes are a direct consequence of a company's activities and contributions. It is also the first part of the IMP's Five Dimensions of Impact for analysing impact. The next step is to evaluate these outcomes to find which ones are material and for which focus, and resources should be allocated. Performing such evaluations to identify important outcomes can be completed in several ways - however, it will always include some form of subjectivity. SASB, for example, identifies outcomes as material, i.e. essential and a priority, if the outcomes can be related to industry-specific sustainability topics that are likely to have a material impact on financial performance. IMP and IRIS+, on the other hand, identify outcomes as material if the outcomes have a significant social or environmental effect on underserved groups of stakeholders. Therefore, financial materiality is a crucial differentiator for the three different concepts. SASB is more (financially) sustainability-related and IMP and IRIS+ more pure impact-oriented. However, the overall thesis is that outcomes that have a positive social or environmental effect will be financial material, even though outcomes do not explicitly need to be financially material to be related to impact. For example, if investing in better education to a residential area, a short-term impact can be created while financial benefits may be limited. However, such investment should in the long-term increase attractiveness to the area and therefore demand -

resulting in increased property value and thus, financial return. This example demonstrates the thesis on value creation from impact - it may not be direct; however, general impact creation should generate long-term financial benefits.

Furthermore, there does not seem to be a one-size-fits-all solution when it comes to identifying the outcomes that can be related to impact. It all depends on what challenges an investor aims to solve, what has the potential to increase long term value, and finally, if the outcomes align with the enterprises business models and strategies. All these factors are subjective to the investors or enterprises own beliefs, values and objectives. However, looking at IMP, IRIS+, and SASB, as well as impact and sustainability-focused investors and real estate companies - there is a shared understanding that for an outcome to be material and create impact, the outcome must solve one of the global challenges as stated by the SDGs.

The different investment firms heard in the empirics use different methods for identifying target outcomes. Nordea, being the sole pronounced impact investor, seeks investments in areas that can generate positive impact or look for impact in financially attractive investments. Meanwhile, Alder and Summa generally invest thematically and focus on businesses in what would be considered sustainability-enabling sectors. The difference is the focus on impact - being essential to Nordea and non-essential but present for the others - distinguishing what being an impact investor can entail. Furthermore, Nordea carries out rigorous impact analysis using the Five Dimensions of Impact. The analysis helps Nordea determine where the investment can generate the most significant impact - which is the area, and outcome/-s Nordea should focus on the specific investment. Summa appraises measurability and manageability when choosing the outcomes (impact) should be prioritised. The motto from Summa is to "measure what matters" and that too many targets make one miss the big picture. Lastly, Alder applies a standard set of sustainability metrics to measure, rather than focus on a specific impact. The different methodologies from the investors to identify a target outcome mirror the investment strategies of the firms and the degree of how vital impact is. Given the exploratory nature of the project, having a range of sustainable investors, from investing in sustainability-enabled technologies to impact investors, provide necessary width to the data ensuring an open-ended approach to acquiring knowledge to answer the research questions.

5.1.2 Methods of Measuring

looking at IMP, IRIS+ and SASB, it is evident that environmental impact is generally measured through quantitative methods. In contrast, social impact is generally measured through qualitative methods. Qualitative approaches usually take the form of interviews or questionnaires aimed at focus groups affected by the impact in question. Impact theory upholds the importance of measurements, ensuring transparency and accountability. Measuring impact can be complicated - methods to measure may be unobvious or inaccessible, which creates a need for innovative solutions. Both Summa and Nordea state that the feasibility of measuring a targeted impact affects how the specific impact is prioritised - an impact that cannot be appropriately measured is down-prioritised. In terms of how the measuring is carried out, naturally, the impact justifies the means. In general, approaches are either quantitative or qualitative - where environmental impact tends to be more quantitative and social more qualitative - all investment firms state.

5.1.3 Reporting

Reporting impact is naturally of uttermost importance and is something that should be done through a consistent and unambiguous manner to contribute to accountability and transparency. Using KPIs is effective and enhance comparability. Standardised frameworks and accounting systems for identifying, managing, measuring and communicating impact, as defined by IMP, IRIS+, and SASB, are useful. Although the three resemble each other in many aspects, there are some differences. First of all, IMP mainly provides a framework that guides investors and enterprises on how to analyse impact. In contrast, IRIS+ and SASB provide specific metrics and indicators that can be used for reporting and communicating impact. However, IRIS+ uses much of the IMP framework alongside best practises and market input to identify and create accounting metrics and indicators. In contrast, SASB has created its framework for which best practices and market input are tested to identify and create industry-specific accounting standards. Secondly, IRIS+ and SASB provide general accounting systems, and both can be used by investors and enterprises from all over the world. However, there are some differences between the two. IRIS+ focuses on impact metrics and indicators that are linked to specific strategic goals that are related to certain operational activities that have an economic effect. Furthermore, instead of only providing a fixed number of metrics and indicators for a strategic goal, IRIS+ also let enterprises and investors to customise as well as use self-made metrics and indicators for reporting and

communicating impact, hence providing users with flexibility in its reporting. By also facilitating the structure of the IMP's Five Dimension of Impact, IRIS+ let its users get a full overview of what impact metrics and indicators that can be used to ascribe social and environmental impact along multiple dimensions. In contrast, SASB provides off-the-shelf sustainability accounting standards through a fixed number of metrics which are linked to specific sustainability topics. Opposite to IRIS+, these sustainability topics are related to specific industries and not to specific operational activities. SASB uses the definition "standards" since its industry-specific topics and metrics are designed to be consistent, well-documented and reliable.

Considering existing frameworks and accounting systems, a reasonable approach for an investor or enterprise looking to incorporate impact strategy into its business is to first evaluate its operational activities according to the Five Dimension of Impact. Compared to the SASB framework, which is specially designed for identifying sustainability standards according to SASB's preferences and objectives, the Five Dimensions of Impact provides a more general framework that can be used by anyone. Using the Five Dimensions of Impact framework ensures that the process for identifying impact-related outcomes is done in a structured and consistent manner. When impact-related outcomes are identified, the next step is to decide on which outcomes to focus on and how to report and communicate impact related to those outcomes. Reporting can be done in multiple ways, either by using self-made measurements or by fully or partially using metrics or indicators from any of the generally accepted accounting systems that exist today. The benefits of, for example, using only existing standards, like the ones provided by SASB, is that it allows for consistency in the reporting as well as for clear communication of impact created. However, the drawbacks with using a single accounting system or general accounting standards are the lack of measurements and standards - no one size fits all accounting system exists today. Regardless of what measurements, investors and enterprises should always try to showcase what global challenges the impact created helps to solve by reporting on the relationship of impact with one or several of the SDGs. The SDG alignment ensures that the impact created is material, and it also makes it easier for stakeholders to understand the effects of the impact created.

On reporting [structure/methodology], all interviewed investment firms have somewhat of a similar approach for impact/sustainability reporting. A few KPIs are used on an aggregated portfolio level to demonstrate a picture of overall impact. Also, each investment has several

more individualised impact KPIs to illustrate every one of the investment's impacts and progress. The KPIs used are naturally a cause of the identified and targeted impact, however Nordea and Summa both state they try to choose as standardised KPIs as possible. For Nordea, this entails using KPIs from accounting systems such as IRIS+ and SASB. In addition to general KPI or metric reporting, Summa uses storytelling as a reporting technique. It is a technique favoured when the impact can be challenging to measure or pinpoint. Furthermore, all investment firms use the SDGs to anchor their efforts.

5.2 Impact within Residential Real Estate

5.2.1 Theory

Both IRIS+ and SASB have developed accounting measurements for the real estate industry. Even though these measurements are not explicitly created for the residential sector, several real estate measurements can be used for measuring impact in this particular sub-sector. By looking at SASB, its standards for the real estate industry are mainly related to environmental effects resulting from energy and water management - it is evident that by creating impact along these dimension real estate companies will improve both its financial performance as well as create positive environmental and, in some cases, social impact. Creating standards related to environmental effects are quite simple due to the quantitative nature of measuring environmental impact. However, creating standards for social impact is much more complicated - underserved groups can differ significantly between real estate companies and locations. It is also much more challenging to calculate how a company's financial performance is improved through the creation of social impact. IRIS+, on the other hand, has created metrics and indicators that are better suited for measuring social impact within the real estate industry - though not defined as financially material or standards. Examples of IRIS+ metrics for measuring social impact are *Client Retention Rate*, *Client Satisfaction Ratio*, and *Number of Community Facilities Financed*.

For residential real estate companies, there is somewhat of a trade-off between achieving environmental impact versus social impact. Speaking with representatives from the real estate sector, it became clear that different stakeholders desire different impact. Tenants and communities are generally more prone to request social impact where safety, well-being and standard-of-living are prioritised before green buildings, e.g. buildings that are eco-friendly

or operated in an energy-efficient manner. Additionally, green buildings do not create any impact that significantly benefits tenants and communities. Green buildings do not solve any of the challenges most prioritised by tenants and communities - thereby not effecting tenants' willingness-to-pay nor increase tenant demand. Although municipalities, commercial tenants and investors also request social impact – as social effects leading to a safer and thriving community are desired - there also exists a general desire for environmental impact amongst this stakeholder group. The reason for this is because municipalities and investors have their own stakeholders (i.e. shareholders and governments) who request that environmental impact is created. Furthermore, properties which are developed and operate in an environmentally friendly manner might receive green certification or eco-labels, which can enable better financing (green financing) for commercial tenants and investors.

5.2.2 Five Dimensions and Empirics

The real estate empirics questionnaire was designed to replicate an impact analysis, making the interviews a proxy for an analysis of the field. Using the IMP's Five Dimensions of Impact, interviews were carried through to dissect the landscape of potential impact from residential real estate.

5.2.2.1 What

Theory on real estate impact investing categorises the "What" into different fields. APPA Real Estate categorises efforts into mainly three fields: Green Real Estate, Housing Affordability and Sustainable Community, while Schroder has the split of focusing on Person, Planet, Place and Prosperity. The two different categorisations are necessarily not that different; both fit any efforts in the field - they just view and categorise them differently. With this background, speaking to real estate professionals on the "What" dimension of impact, all ideas fit any of the two ways of categorising. The categorisations presented in the theory chapter can, therefore, be used as frameworks for identifying and categorising impact from residential real estate.

Real estate professionals suggested a range of topics on the "What" [what outcome (impact) occurs] during interviews. Areas where the operations of residential real estate can have an impact are:

- Safeness
    - Feeling safe inside and outside of your apartment including residential premises like washhouse, cellar, walkways, bus stops and more.
- Well-being
    - One's ability to feel well-being through a suitable home, attractive outdoor premises, social life and more.
- Health
    - Enabling for proper health authorities to be within reach for tenants as well as promoting healthy lifestyles
- [Neighbourhood] Participation
    - Including mainly tenants - but also companies, organisations and other stakeholders to partake in the development of the area.
- Integration
    - Managing efforts to promote integrated communities.
- Crime obstruction
    - By developing the built, physical, environment cautiously - crime can be obstructed.
- Vandalism and property damage
    - Can be obstructed through different measures, neighbourhood participation for one. See broken window theory in wordlist.
- Job-creation
    - Managing efforts to attract corporations and enhance job opportunities in the area (can be more extensive – focusing on the city or part of the country).
- Education
    - Ensuring education alternatives are close and off good standard
- Personal growth
    - Can take form in many different fields: health, education, employment, socially etc.

- Reducing the carbon footprint
    - Creating a living for people while improving carbon footprint and ensuring sustainable development

5.2.2.2 Who

When discussing the "Who" [who experiences the outcome] section of impact, all real estate professionals univocally reasoned that impact from the residential area would affect everyone and anyone being in the area, including non-tenants. The rationale was that while some impact may be experienced more on an individual level, the long-term effect should include everyone - as a base case. Examples could be crime rates or health, probably having a quick individual impact for some, but the main objective should be the collective impact, and that should affect everyone - tenants, jobholders or even by passers in the area.

5.2.2.3 How Much

The "How Much" [how much of the outcome occurs - across scale, depth and duration] is naturally unique per impact. In general, the impacts identified should have wide-scale for all tenants (safeness, carbon footprint, integration, well-being for some) while a few target minor groups (education, for example). The duration is in general life-long, but also short-term. The feeling of safeness, for example, should be present at all times (i.e. duration should be lifelong), however, if there has been recent disturbance threatening it, efforts can be made promptly, and the effect sought for short-term.

5.2.2.4 Contribution

When discussing "Contribution" [is the outcome attributable to efforts or was the change likely to occur anyway] all real estate firms tried to ensure that their work was continuously assessed. The univocal efforts were evident in discussions on measuring effects where firms attempted to measure and look at what could be under their control like spending on vandalism rather than crime rates in the municipality. Interestingly, for some fields, like environmental impact, much progress was happening as an effect of the market. Rikshem stated that while the environmental aspect is of uttermost importance, the whole industry is pushing for its development together. All competitors have incorporated developing real estate environmentally sustainable as a part of their strategy, which results in it being essential for any company in the sector to do so to remain competitive. Therefore, focusing on environmental impact, from an impact investor's perspective, could entail betting on a field where change was likely to occur independent of any efforts and the actual impact created may be lesser than potential social areas of impact. Naturally, this is good for the environment and also investors caring for it. However, if investing for impact in this sector, chances are environmental effects are limited in terms of impact creation.

5.2.2.5 Risk

Real estate firms were in partial agreement on "Risk" [what is the risk to people and planet that the impact does not occur as expected]. All firms saw little risk in working with sustainability since it should be vital for their operations, now and in the future. Even though an effort did not create the outcome sought for, working in the domain of sustainability entails low down-side risk and the outcome should therefore not be "too bad" - firms argued. However, Sveafastigeheter raised the viewpoint of long-term effects that could take a turn for the worse - exemplifying with Miljonprogrammet where a suboptimal solution to housing shortage underpinned segregation. The risk associated was that short-term focus can create long-term problems and that many aspects of creating a neighbourhood should be considered - more than just that residences are needed promptly. Another viewpoint lifted was the difficulty to make changes to the built environment - especially for residential real estate as people will be living there. All firms argued that longsightedness was a critical perspective that should be permeated in all analysis to mitigate the risk of causing future problems with the built environment.

6. Analysis

This chapter utilises and structures data from theory and empirics to best answer the thesis purpose with regards to the focal point - Brunswick Real Estate.

6.1 Impact Investing

What distinguishes impact investing from other investing strategies is the intentionality to solve problems or better situations for underserved groups in a social and/or environmental perspective. Following the intentionality comes a responsibility to report and communicate transparently, enhancing the strategy and (hopefully) proving its worth. The theory emphasises intentionality, use of evidence and impact data in design, managing (impact) performance and contributing to the growth of impact investing. Naturally, all of these parameters demand some work and should rely on careful analysis. Well-established frameworks like IMP's Five Dimensions of Impact can be used advantageously to certify a thorough and comprehensive analysis. The same goes for any impact investor, including the ones targeting residential real estate in Sweden. To carry through the strategy in Sweden, the impact investor should do a thorough impact analysis in the market as a whole, but more importantly, on each investment level. As the standard of living in Sweden is quite high, the impact that is possible to generate often targets social wellness areas like safeness, health and education, which are highly location specific.

6.2 Determining Desirable Impact - SDG Alignment

The SDGs provide a high-level overview of where impact can be created by describing global challenges that need to be solved. Investors wanting to incorporate impact investing in its investment strategies can use the SDGs as guidance when targeting industries or businesses in which to invest. For example, looking at Summa's investment strategy, it is based on three investment themes and centres around identifying assets that have an apparent SDG angle. Aligning impact to one or several of the SDGs has several advantages. First of all, the alignment makes it easy for stakeholders to understand the actual effect of the impact created and secondly it indicates and strengthens the claim of the impact having a material

social or environmental effect. Regarding residential real estate companies operating in Sweden, impact can be achieved in various ways and most of which can be aligned to one or several of the SDGs. With data collected from interviews with real estate companies together with best practises on impact investing within the real estate sector, it has been identified that impact investors can primarily contribute in solving eight of the seventeen SDGs. Figure 14 showcases the SDGs that have been identified as being the most relevant and achievable when investing in this particular sector. It also gives examples of how impact investors can contribute to solving each challenge.

Relevant SDG	Real estate companies can contribute to the SDGs by…
3 GOOD HEALTH AND WELL-BEING	… promoting internal health for its workforce and promoting external health actions for tenants and communities surrounding the real estate (e.g. by providing fitness areas, social areas, and community gatherings)
5 GENDER EQUALITY	… promoting gender equality in its own workforce and management
7 AFFORDABLE AND CLEAN ENERGY	… providing green buildings that are using affordable and clean energy in its operations (e.g. through renewable energy or utilizing solar panels)
8 DECENT WORK AND ECONOMIC GROWTH	… providing employment opportunities with fair labour conditions
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	… improving the environment and the infrastructure in a city. Such contribution can help foster innovation and promote sustainable industrialization
10 REDUCED INEQUALITIES	… providing, for example, affordable housing. Thereby, contributing to reducing inequality gaps between those having a home and those who have not
11 SUSTAINABLE CITIES AND COMMUNITIES	… for example, providing affordable housing or green buildings, and by promoting housing quality, residential stability, and access to supportive services
13 CLIMATE ACTION	… reducing environmental effects from its operational activities (e.g. by using renewable energy and sustainable materials as well as promoting circular solutions and waste and water management)

Figure 14. Overview of global challenges for which impact investors can contribute to solutions.

Through a thorough analysis of the eight SDGs defined in Figure 14 it has been sought to identify which SDGs are most relevant and achievable with regards to where impact can be created to the greatest extent and for which efforts can be directed naturally. Reducing the environmental effects resulting from property development and operational property activities can create a significant impact. Due to the nature of the business, it is also something that is both relevant (reduces operating and developing costs) and achievable (use of renewable energy or by installing solar panels). Both Schroder, APPA Real Estate and the interviewed real estate companies state environmental impact as one of the essential impact areas for which the real estate sector can contribute to and have thereby directed much of its focus towards that area. Schroder is linking environmental impact to efforts that contribute to solving issues concerning the way the industry is affecting the planet - stating SDG #13 (Climate Action) as being extra relevant and achievable targets. Furthermore, improving energy efficiency and reducing waste and greenhouse gas emission is particularly requested and prioritised by municipalities, commercial tenants and buyers of properties, empirics state.

There are mainly two SDGs that environmental impact can be aligned to and that are of relevance for this sector, namely SDG #7 (Affordable and Clean Energy) and SDG #13 (Climate Action). Schroder has stated SDG #13 as being extra relevant and achievable. In contrast, APPA Real Estate, though not linking environmental impact to a specific SDG target, has stated Green Real Estates as one of its relevant and achievable targets which could be aligned to both SDG #7 and SDG #13. Additionally, Stena Fastigheter, express its focus on using renewable energy in its housings and its continuous work with resource efficiency - both contributing to SDG #7 and SDG #13. Comparing #7 to #13, SDG #13 is not as pinpointed towards the Swedish residential real estate sector as SDG #7 since enhancing energy efficiency and using renewable energy is where efforts can be directed. By aligning environmental impact to SDG #7, some of the targets stated by Schroder and APPA Real Estate are satisfied. However, it significantly targets the needs of tenants, communities and buyers of properties, and it is something that is already targeted by real estate companies. Hence, SDG #7 makes it easier for stakeholders to understand the actual effect of the impact created; it indicates and strengthens the claim of the impact having a material environmental effect. It is proven to be both relevant and achievable.

When instead looking at different aspects and best practises regarding social impact, it is evident that there are several SDGs for which impact can be aligned and efforts targeted. However, four SDGs stands out for this particular sector, namely SDG #3, SDG #8, SDG #10 and SDG #11. Schroder is linking social impact to efforts that contribute to solving issues concerning the way the industry is affecting people and places - stating SDG #8 (Decent Work and Economic Growth) and SDG #11 (Sustainable Cities and Communities) as being extra relevant and achievable targets. Though not specifying specific SDGs as targets, APPA Real Estate is focusing on social impact by stating Housing Affordability and Sustainable Community as relevant and achievable targets. Housing Affordability being undoubtedly aligned to SDG #10 and SDG #11 since efforts targeted towards this area are intended to help reduce inequalities, contribute to inclusiveness as well as provide people with housing. Sustainable Community being undoubtedly aligned to SDG #3 and SDG #8 since efforts targeted towards this area are intended to contribute to the economic growth, community well-being, good health, and educational aid. Additionally, reflecting on the interviewed real estate companies' best practises, it is evident that focus is mainly directed towards enhancing safeness and well-being and supporting personal growth. Efforts for enhancing safeness include improving physical environments such as creating open spaces, creating lively bottom floors, and illuminating pathways, thereby clearly aligning to SDG #11. In contrast, efforts for enhancing well-being often include providing fitness and social areas, and through arranging activities for children and the youths, all of which can be aligned to SDG #3 and SDG #11. Lastly, efforts for supporting personal growth are primarily made by providing different sizes and types (rental vs ownership) of residence - clearly aligning to SDG #11.

Being mentioned by all parties, SDG #11 is one of the most prioritised targets for which social impact can be created. Contributing to solutions solving challenges related to SDG #11 have the potential to create significant impact with efforts affecting not only tenants but also the whole community surrounding the real estate. Therefore, SDG #11 should be prioritised as one of the main targets for which impact investors should align impact. When instead looking at SDG #3 and SDG #8, efforts intended to contribute to either one of them will likely contribute to the other as well. For example, efforts intended to contribute to SDG #3 will likely contribute to improving SDG #8 as well, since better health and well-being can help individuals to get or retain a job which can help to stimulate the economy. However, SDG #8 is more targeted towards commercial tenants, while SDG #3 is more targeted

towards residential tenants - commercial tenants create jobs, thus stimulate economic growth. Moreover, as tenants are prone to request and prioritise well-being, more significant impact can be created when targeting SDG #3 than SDG #8 considering this particular sector. Therefore, SDG #3 should be prioritised as one of the main targets for which impact investors should align impact. The last SDG, SDG #10, is a target for which this sector can contribute to - providing affordable housing reduce inequality differences. However, as not explicitly stated to be prioritised by tenants or people living nearby the real estate, the impact resulting from reducing inequalities would be small. Hence, SDG #10 should not be prioritised as a target if the impact investors intention is to achieve a significant impact.

6.3 Determining Desirable Impact - Targeting Impact

From the Empirics, and as discussed in 5.2.2.1, it is evident that the field of residential real estate provides numerous possibilities to inflict positive impact through thoughtful operations. To determine which impact that should be targeted, an impact analysis of place and situation should first be conducted, preferably through a developed framework like the Five Dimensions of Impact. The effect or area which should be targeted should be the one where the most significant impact can be inflicted (theory and investors state). The empirics collected from the interviews with real estate professionals followed the structure of IMP's Five Dimensions of Impact, wherefore the identified areas came from a proxy impact analysis. The empirics provide what impact can be created; however, the information on how much impact can be contributed need further analysis. Therefore, this section analyses potential areas of impact and the "size" of their potential, using the tools from theory and knowledge from the empirics.

Starting, the analysis sought is where can residential real estate inflict the most significant impact. As impact has no general measurement for the "size" of impact created, a well-rounded analysis must be carried out. To determine the "size" of potential impact, an impact analysis with the Five Dimensions of Impact has been complemented with analysis on how feasible and manageable a targeted impact would be. The additional analysis of feasibility and manageability stem from Nordea and Summa Equity use of these perspectives when choosing which impact should be their focal point. Combining the elements of feasibility and manageability provides an analysis on the impact-creator and their capabilities (in this case, that would be a real estate company which the impact investor would invest in). Another dimension that could be added, from an investor's perspective, is the willingness to pay for a specific impact. Willingness to pay would provide the element of what impact is viewed to bring a financial return. The dimension would deviate some from impact investing strategy, which clearly states that the most significant impact, independent of projections on financial return, should be the main focus.

Each identified area of impact, the "What", have been analysed for the below parameters (called "verticals") in Table 9. The value assigned (high/medium/less) stem from IMP (See Table 8.) and provides a scale of 1-3 based on that vertical assessing the impact. The value

assigned is the result of analysis of the collected empirics, theory and the market. Each vertical has been given the same weight to try to make a well-rounded size-valuation of each impact. The vertical "How much", including depth, scale, and duration, account for three, rather than one, sources of size-contribution - which is fair as all parameters provide relevant perspective on the size of the impact. The "Who" vertical, considering who is affected and how underserved are they, is somewhat simplified to only cover "who are affected". The simplification is due to that the analysis is general on the predetermined market, why judging how underserved a specific group is considerably complex due to its unique location, and therefore situation, dependence.

What - what impact is sought for	Safeness	Well-being	Health
Who - who are affected: neighbourhood/tenants/select few	Neighbourhood	Tenant	Tenant
How Much			
Depth - degree of positive change achievable: high/medium/less	High	High	Medium
Scale - for how many: many/medium/less	Many	Many	Medium
Duration - for how long: long-term/medium-term/short-term	Long-term	Long-term	Long-term
Contribution - would the outcome be the same: better/medium/likely the same	Better	Medium	Medium
Risk - risk that the desired outcome cannot be achieved: High risk/medium risk/low risk	Low risk	Low risk	Medium
Feasibility - how feasible is it to create the desired impact: feasible/medium/unlikely	Feasible	Feasible	Medium
Manageability - how manageable is the impact: manageable/medium/difficult	Manageable	Manageable	Manageable
Impact size score	**24**	**22**	**18**

Table 9a – part 1 – Impact" Size" Analysis – Qualitative scoring

Participation	Integration	Crime obstruction	Job-creation	Education	Personal growth	Reduced carbon footprint
Tenant	Neighbourhood	Neighbourhood	Neighbourhood	Select few	Neighbourhood	Neighbourhood
High	High	Medium	High	Medium	High	Medium
Medium	Many	Many	Medium	Medium	Many	Many
Long-term	Long-term	Medium-term	Long-term	Long-term	Long-term	Long-term
Better	Medium	Likely the same	Better	Better	Better	Medium
Low Risk	High risk	Medium	Medium	Medium	Low risk	Low risk
Feasible	Unlikely	Medium	Medium	Feasible	Feasible	Feasible
Manageable	Difficult	Difficult	Manageable	Manageable	Manageable	Manageable
22	**17**	**16**	**21**	**19**	**24**	**22**

Table 9b – part 2 – Impact "Size" Analysis – Qualitative scoring

What - what impact is sought for	Safeness	Well-being	Health
Who - who are affected: neighbourhood/tenants/select few	3	2	2
How Much			
Depth - degree of positive change achievable: high/medium/less	3	3	2
Scale - for how many: many/medium/less	3	3	2
Duration - for how long: long-term/medium-term/short-term	3	3	3
Contribution - would the outcome be the same: better/medium/likely the same	3	2	2
Risk - risk that the desired outcome cannot be achieved: High risk/medium risk/low risk	3	3	2
Feasibility - how feasible is it to create the desired impact: feasible/medium/unlikely	3	3	2
Manageability - how manageable is the impact: manageable/medium/difficult	3	3	3
Impact size score	**24**	**22**	**18**

Table 9c – part 3 – Impact "Size" Analysis Heatmap – Quantitative scoring

Participation	Integration	Crime obstruction	Job-creation	Education	Personal growth	Reduced carbon footprint
2	3	3	3	1	3	3
3	3	2	3	2	3	2
2	3	3	2	2	3	3
3	3	2	3	3	3	3
3	2	1	3	3	3	2
3	1	2	2	2	3	3
3	1	2	2	3	3	3
3	1	1	3	3	3	3
22	**17**	**16**	**21**	**19**	**24**	**22**

Table 9d – part 4 – Impact "Size" Analysis Heatmap – Quantitative scoring

The table above show safeness and personal growth come out on top on the analysis, with a perfect score - these focus areas can inflict significant impact. Safeness and personal growth can cause great positive change and to many people. Both of the impacts would be qualified within the category of positive social outcomes and, using the categorisation of APPA, under Sustainable Communities.

Inspecting "Safeness", everyone in the neighbourhood is affected, empirics state. Furthermore, all "How much" parameters are maxed due to the nature and baseline value of safeness. If people experience un-safeness or distress - it is a huge problem, and the specific group is highly underserved. That is why all real estate firms prioritise, creating safe and

secure neighbourhoods - resulting in the degree of change can being high, the scale affects many, and the duration is long-term. The "Contribution" from the impact creator (real estate company) is also highly related; the outcome is likely better when companies intervene. The empirics state several suggestions to enhance safeness such as working with lightning, community rooms, people on the ground - proving the companies have experience from affecting the safeness. The same argument validates why efforts are feasible and manageable for the desired impact. Lastly, risks associated with not generating the impact sought for are low. This analysis also stems from the vast material from the real estate companies working with the subject and also not identifying specific risks associated.

Moving on to "Personal growth", the impact is complex and multifaceted - and also consist of several other identified impacts. Personal growth is characterised by possibilities of good health, education, occupation, residency (size and ownership), having a family, wealth. As an area of impact, it can be discussed if personal growth should be divided into several smaller sub-areas; however, the impact should not be disregarded as a standalone impact since it is mentioned and desirable according to empirics. Looking at the "size" analysis; personal growth can affect everyone in the neighbourhood. The multifaceted nature ensures there should be an impact for anyone to be affected by in the area. The degree of positive change can be high, the scale affects many, and the duration of impact is long-term. The "Contribution" is likely better - many examples from the empirics prove personal growth can be affected (examples may be providing different types of ownership alternatives to apartments, health and education efforts). Given the number of examples from the empirics to create this impact, it is both feasible and manageable. Lastly, risks associated with creating a positive outcome should be limited - nothing was raised from interviews, and a sanity check only says that the impact may not be as significant as planned. Furthermore, the impact risk should be offset by the width of the potential area of impact - the width provides a lot of options and angles to create the impact, giving it a better chance to be substantial.

Behind safeness and personal growth, "Well-being", "Participation" and "Reduced carbon footprint". Well-being, which is enhanced through suitable homes, social life and more, misses the perfect score due to "Who" and "Contribution". The impact is judged not to affect all ("neighbourhood" classification in "Who") since it would be difficult for an impact investor to be responsible/affect the well-being of non-tenants. "Contribution" is medium since possibilities to affect from a landlord's perspective should be limited. For example,

social activities or outdoor premises provided may increase well-being; however, most likely will not be a significant part of what a tenant would say contributes to their well-being. "Participation" is most likely challenging to reach out to a broad range of people and for it to stretch beyond tenants would require unreasonable efforts for a real estate company - which causes the scale to reach medium rather than many. "Carbon footprint" misses the perfect score for the same reason: the industry, as stated by Rikshem, naturally push the advancement to more green buildings and communities. The natural development limits the possible degree of positive change achievable (depth) and makes it more likely for the impact to take place independent of efforts, lowering the "Contribution" score.

The remaining areas of impact achieve varied scores, all due to different obstacles. "Health" can be generated by promoting healthy lifestyles and ensuring the availability of health care. The impact struggles to affect many people (e.g. a gym) and ensuring the "Contribution", which increases risk and lowers feasibility. "Integration" struggles with "Contribution", "Risk", "Feasibility" and "Manageability". The score is attributable to the highly complex nature of integration - making it difficult to ensure contribution and high risk that efforts do not turn out as planned. Naturally, this lowers feasibility and manageability. "Crime obstruction" is mainly difficult from a "Contribution" and "Manageability" point of view. The impact is that fewer crimes are carried out - how does one prove that one's initiative obstructed a crime that has not happened? "Job creation" scores high, however just outside top three. Job creation affects fewer people and efforts can only be attributed as a contribution if the impact investor is directly (i.e. the residential company invested in hires people) responsible. At the same time, indirect responsibility is difficult to determine the contribution. Furthermore, the efforts to contribute to more complex (i.e. not “just” hiring people oneself as a company) job-creation should be somewhat limited - why feasibility is not perfect. "Education" receives lower score mainly since it does not target all within a community, but mainly a select few being people in schooling-age.

As previously mentioned in the analysis, investors tend to use three or so areas to focus on an aggregate portfolio level. Having this in mind, and adding the above impact analysis, an impact investor in Sweden focusing on residential real estate could focus on three key impacts: safeness, personal growth and carbon footprint on an aggregate portfolio level - and then any of the other identified impacts on project-level, dependent on project-specific impact analysis. For the third area, the carbon footprint is selected over well-being and participation.

The main argument is to get a diversified base of impact to attract a broad range of investors - as the carbon footprint is the only of the top five impacts with a distinct environmental connection. Further arguments can be made that it is not interconnected to the same extinct as the other impacts, which arguably can be overlapping in some senses.

6.4 Measuring and Reporting Impact

As theory states, the impact should be measured and reported to ensure transparency and accountability towards the strategy [impact investing]. Standard measurements and KPIs contribute positively to comparability and also communicability - enhancing industry standardisation. Furthermore, the reporting standard should follow the one as discussed in 5.1.3: a few KPIs used on an aggregate portfolio level complemented with a deep-dive into each project along with project-specific KPIs. Naturally, the impact investor in residential real estate should use our three identified main impacts (safeness, personal growth and carbon footprint) on an aggregate portfolio level and the other on project level.

Reporting safeness, neither IRIS+ nor SASB has any off the shelf measurements or metrics that accurately focus on safeness. As an impact, safeness is highly subjective from person to person as it is a perceived feeling. With this in mind, a comprehensive sample of respondents should be prioritised to codify an overall opinion on safeness. From the empirics, firms state that safeness is evaluated through periodical surveys to tenants. The approach is qualitative and open-ended - rhyming with what has been discussed with social impact measurements. Therefore, periodical (annual or semi-annual) surveys make sense. Looking at the logic behind how IRIS+ structures KPIs, as presented in Figure 9, page 42, the approach fits. Furthermore, if safeness is going to be used as an overall KPI, and therefore must be able to be measured throughout the project portfolio, the measurement needs to be manageable across all projects - which it is.

Moving on to personal growth; measuring is naturally more difficult. As discussed, the multifaceted nature of personal growth provides many sub-areas of potential impact - but also a problematic basis on what should be measured and compared. Looking at IRIS+, Figure 10, presenting relevant impact themes related to real estate, no theme is equivalent to personal growth; however, "Increasing Residential Stability" (IRS) shares similar characteristics. For example, IRS has outcomes related to it as "Healthier childhood development", "Improved

ability to pursue educational opportunities", "Improved ability to pursue employment", "Improved mental health and well-being" and "improved physical health". All of these outcomes relate to how empirics would define personal growth and also would underpin actual personal growth. Needless to say, IRS and personal growth share characteristics. The KPI used to measure and compare IRS is "Client Retention Rate" - the ratio of the number of tenants retained from the start to the end of the reporting period. The KPI fits personal growth as an impact, however, it is arguably not perfect. The rationale is clear: if one can develop as a person, there is no need to move, the area should satisfy one's continued growth (assuming people want to grow continuously) - which highly relates to Rikshem's attempt to obstruct the success paradox. The empirics do not state any precise methods of measuring personal growth, but rather initiatives to enhance it (enabling jobs and education, for example) and how to measure specific initiative. Thus, Client Retention Rate is the best fit to serve the purpose of measuring and comparing personal growth in a way to ensure transparency and accountability. The measurement can also be done across a portfolio.

Lastly, regarding reducing the carbon footprint, the environmental impact has some quantifiable characteristics. The potentially reduced carbon footprint should naturally be a consequence of the usage of energy, water, materials used recalculated to CO2-equivalents or similar. The full carbon footprint of a residential project, and a portfolio, take a thorough life-cycle-perspective analysis of all operations. It is a best-case scenario to compare such numbers periodically, however not the most feasible nor manageable metric to handle. Inspecting SASB, which presents numerous environmental-related KPIs, the main fields are Energy Management, Water Management, Climate Change Adoption and Management of Tenant Sustainability Impacts. Energy and water management are the largest fields in terms of carbon footprint, where energy management (given the nature of the operations) is the most significant contributor. With energy usage and its carbon footprint, it is essential to note that it depends mainly on two factors: (1) total energy consumption and (2) energy source (e.g. renewable or not). Thus, a good KPI should account for both of the factors. Total energy consumption is mainly viewed as an efficiency metric looking at total energy consumption by square metres, and the source of energy is declared as a percentage of total consumption coming from renewable sources, the first SASB report. To adequately account for the (1) and (2) factor determining the carbon footprint, one could look at CO_2 emissions from non-renewable sources per square meter. The metric would be improved if lowered, and companies could lower it by (1) lower total energy consumption and (2) lower the energy

used from non-renewable sources. The metric allows for companies to grow (e.g. build more) as it is dependent on square meters. The metric aligns with SDG #3.

For the remaining identified areas of impact, different methods of measuring and metrics/KPIs for reporting are available. The theory states that comparability and transparency are of importance. If looking at the empirics, different initiatives may be aimed at goals which cannot be appropriately measured. Examples are crime obstruction and education where improvements, which would be seen in overall crime rates and grade statistics available on municipality level, may not be entirely attributable to the initiatives taken by the real estate firm. Therefore, when working with impact, it can be of relevance to try to measure differently. Continuing on the education example, many firms provided homework services/opportunities. For an impact investor to measure, compare and communicate this impact, perhaps having "number of visitors" to homework aid opportunities would be more accurate and transparent as to what the impact is that has been created. Concerning crime obstruction, on the other hand, firms measured "the amount spent on property damage". The KPI was supposed to serve as a proxy for crime in the area, an innovative and relatively appropriate metric - as long as it follows with an appropriate explanation to ensure transparency. This flexible mindset needs to be applied when impact investing and reporting efforts and effects. Qualitative storytelling should follow along to illuminate the efforts taken and the impact sought for and, most importantly, created - complementing KPIs and metrics.

7. Conclusion

7.1 Summary and Conclusion

Impact investing is a dedicated strategy to create measurable positive environmental and/or social effects alongside financial return when investing. The strategy requires the investor to carry through thorough impact analysis to identify and target the impact/-s which are going to be generated. Thereafter, the investor should manage the impact performance and then report on the investment and its impact. The reporting should be done clearly and transparently to bring accountability towards the strategy and contribute to its growth. Standards such as the Five Dimensions of Impact for impact analysis and IRIS+ for reporting may be used advantageously to help create common ground on the subjects, enhancing the possibility to compare and communicate impact.

When impact investing in the residential real estate sector in Sweden, the investor should target impacts aligned with SDG #3, #8, #11. These SDGs have been identified as the most relevant and achievable for the sector. The investor should focus on three main areas of impact, which should be included in all impact-related work for each project. These areas of impact are safeness, personal growth and reducing the carbon footprint. Each impact should be monitored, managed, measured and reported. The three main impacts should be monitored with the following KPIs:

- Safeness - tenant questionnaire - how safe does the tenant feel on the premises of the residential area – 1-10. The KPI is compared Y-o-Y and should be increasing.
- Personal growth - tenant retention rate - how many of the tenants from the last period still live at the residences - % tenants retained. The KPI is compared Y-o-Y and should be increasing.
- Reduced carbon footprint - CO_2 emissions from non-renewable energy sources per sqm - energy efficiency should be measured for the actual residence - CO_2/sqm. The KPI is compared Y-o-Y and should be declining.

In addition to the main areas of impact, the investor/investment should identify underserved groups and possible impacts to target on a project level basis. All impact-related work should

be thoroughly and transparently disclosed though a structured report. The report should combine SDG-alignment, KPIs/metrics and qualitative information – presenting the firm's objectives, efforts and results regarding impact.

8. Contribution and Remarks

8.1 Critical Review

The conclusions made in this thesis are based on data gathered through the literature review and interviews. As impact investing is a relatively young investment strategy, extensive research has not yet been made on the subject - especially not its application within the residential real estate sector. Most of the data used in the literature review came from publications not older than five years. As such, the literature review managed to be up-to-date, however, limited considering the few numbers of publications identified and used. One can argue that the literature review should be more extensive in order to provide additional depth and width to the thesis.

The central parts of the thesis originate from IMP and the Five Dimensions of Impact. The Five Dimensions of Impact offer investors a prominent framework for working with and analysing impact in a structured and efficient manner. The framework is thorough and used by investors across the world - there are currently no other frameworks that are equally tested or well-established. Additionally, IMP is supported by organisations such as GIIN, UNDP, and GRI, thus providing significant credibility and reliability to the framework. Hence, despite limited data from the literature review, the authors still believe it to be sufficient for addressing the thesis purpose and objectives in the right way. However, it is worth noting that more real-world applications, industry experts, and research on impact investing are necessary to validate the findings of this thesis fully.

Qualitative interviews were conducted with seven people, of whom three were impact/sustainability investors and four real estate professionals. This sample size can be argued as being small. However, the four real estate professionals represent four of the major real estate companies in Sweden. Hence it can be argued that they represent the whole population quite well. Similarly, the sample size of investors was small. With limited number of impact investing practitioners in Sweden it was difficult to expand this sample further. The shortage of pure impact investors might affect the findings in the thesis and by interviewing more pure impact investors the results might have turned out differently. However, despite

the low number of investors interviewed, the authors believe that the group represent the whole population, as it is today, quite well.

8.2 Suggestions for Further Research

The research gaps - intentionally beyond the thesis project scope - are well-suited as areas for further research. First, it would be interesting to explore impact related to the residential real estate industry more deeply. To what extent do efforts have a positive impact on residents and the neighbourhood? What positive change is it that residents and the neighbourhood need and demand? By collecting data directly from residents, instead of real estate professionals, it would be possible to examine more thoroughly where impact can be created to the greatest extent.

Secondly, it would be valuable to examine the possibilities to convert social impact to monetary value. What is the social monetary benefit of, for example, employing 20 people from the neighbourhood? How would one measure safeness in monetary terms? However, since social impact is often subjective to the people experiencing the outcome, it would also be interesting to examine if it is even possible to put a monetary value on social impact?

Lastly, this thesis is based on qualitative data, but it would be interesting to examine impact investing from a quantitative perspective, for example, examine the historical performance of impact investors. How has impact investors performed financially compared to investors investing with a traditional approach? Does impact investors really create both positive social and/or environmental effects and financial return?

8.3 Final Remarks

A master thesis is a final deliverable before finalising a Master of Science degree in Industrial Engineering and Management. A thesis is conducted in a highly academic setting; however, it may have objectives of such in line with the interest of business life. This particular thesis held objectives formulated in agreement with investment firm Brunswick Real Estate. While the objectives and purpose of the study held commercial value, the methodology and shaping of the project were highly academic. The mixture of academic and commercial value of the thesis creates a unique blend of analysis and viewpoint - a differentiated product which aims to serve as inspiration for investors, business leaders, and intellectuals alike.

Lastly, one must note that this thesis was carried out during the bewildered spring of 2020. As wildfires, armed conflicts, a pandemic and inequality riots took hold of the global media scene and the world's attention - this thesis researched how to generate positive returns for society and the planet. Needless to say, the timing was captivating. The legitimacy and allure of the strategy grew almost by the day. The real core of the strategy comes down intentionality - commitment and responsibility to create definite sustainable advancement. As the intentionality is appreciated by the underserved groups impact aim to improve, it is also attracting investors. The strategy is appealing from almost any angle - and we think it will be for quite some time. As global challenges will not solve themselves and institutions having excess capital to deploy, the strategy could benefit all. Impact investing should be an approach to succeed - sustainably and financially.

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Appendix

A – Impact Investors Interview Guide

Intervjuguide - Impact Investing

Denna intervju kommer att hållas i syfte för att samla information till ett examensarbete vid Lunds Tekniska Högskola. Examensarbetet behandlar "Impact Investing in the Residential Real Estate Sector" och syftar till att svara på följande:

- Identify target social and environmental outcomes
- Identify methods for measuring positive impact
- Propose suitable KPIs that can be used for reporting purposes

Impact Investing

- Hur inkluderar ni positiva social/miljömässiga effekter (impact) vid investeringar? Hur definieras det och inkluderas i investeringsunderlag/rapportering/arbete framgent etc.
    - Mätning (kvalitativt / kvantitativt):
        - Hur uppskattar ni dessa effekter? (Före)
            - Hur bestämmer ni relevanta KPI:er?
        - Hur mäter ni dessa effekter? (Under)
        - Hur rapporteras dessa effekter? (Efter)
        - Sätter ni mål för den impact ni vill uppnå? Hur går det till?

- Hur säkerställer ni att den mätbara impacten är hänförbar (kausalt samband) till en investering?
    - Hur avgör ni vad som är hänförbar effekt från en investering?
        - Direkt vs indirekt

- Hur jämför man sociala/miljömässiga effekter vid investeringar?
    - Hur prioriteras och vägs önskade effekter?
    - T.ex.: när man jämför olika case mot varandra **vs** när man jämför vilka effekter man ska prioritera inom ett specifikt case

- Hur prioriteras impacten vid en investering?
    - Hur väljer ni vad som är viktigt? Vilken impact ni ska fokusera på.

- Hur jämför man investeringar med olika impact?
    - Hur görs investeringsbeslut när olika effekter ställs mot varandra?
    - Är impacten enbart komplement till det finansiella som väger tyngst, eller jämförs "finansiellt + impact" per varje investering?

- Hur går ni tillväga i sourcingen: söker man ett problem att lösa via en investering, eller hittar man positiva effekter från en investering?

- Hur har era processer/tillvägagångssätt för att mäta och definiera impact ändrats med åren?

- Hur väljer ni vilka områden ni vill fokusera på för att skapa impact? Övergripande perspektiv. (t.ex. om man fokuserar på SDGs - hur och varför prioriterar ni vissa mål)

- Hur ser ni på framtiden för impact investing?
    - Vilka trender ser ni?

Intervjuperson och firma

- Person:
    - Kort bakgrund
    - Befattning/roll

- Firma:
    - Vad arbetar er firma med?
    - Vilka är era primära intressenter?
    - Hur arbetar ni med impact investing (eller relaterade investeringsapproacher)?

B – Real Estate Interview Guide

Intervjuguide - Hållbarhet och Impact inom Residential Real Estate

Denna intervju kommer att hållas i syfte för att samla information till ett examensarbete vid Lunds Tekniska Högskola. Examensarbetet behandlar "Impact Investing in the Residential Real Estate Sector" och syftar till att svara på följande:

- Identify target social and environmental outcomes
- Identify methods for measuring positive impact
- Propose suitable KPIs that can be used for reporting purposes

Informationen som eftersöks är hur ett företag jobbar med hållbarhet och vilka effekter det får, vilken typ av impact som går att identifiera inom ramen för verksamheten inom bostadsfastigheter;
vem, vad och hur den påverkar.

Impact defineras som positiva social eller miljömässiga effekter från aktivta val, inom ett område som tidigare kan ses som "underserved" (området för impact ska gärna vara imperfekt/utsatt/sämre ställt än andra möjliga påverkansområden - en förbättring ska gärna behövas snarare än endast vara möjlig).

Intevjun är tänkt att täcka 5 områden:

- **Vad** - vilken impact skapar verksamheten och hur viktig är den för intressenter
- **Vem** - vilka intressenter upplever impacten och hur var deras ställning (hur underserved var de) innan impacten
- **Hur mycket** - hur många intressenter upplever resultatet, vilken grad av förändring uppnås, hur länge kommer resultatet upplevas
- **Bidrag** - på vilket sätt bidrar företagets ansträngingar till ett resultat som är bättre än om inga hållbarhetsansträngningar gjorts
- **Risk** - vilken risk finns att den önskade effekten från hållbarhetsarbetet blir annorlund än tänkt

Exempelfrågorna kan upplevas riktade mot "impact" som nödvändigtvis inte känns relaterbart eller som något respoendenten jobbat med. **Ett förtydligande är därför att målet med intervjun, oavsett frågeformulering, att grena ut vilka positiva effekter som kan och har kunnat skönjas från bolagets aktiva hållbarhetsarbete.**

Frågor – Impact inom bostadsfastigheter:

- Vad för positiva sociala och miljömässiga effekter kan ni identifiera från er verksamhet?
    - Här går det bra att nämna gärna många övergripande områden, ex:
        - Socialt: trygghet, överkomliga hyror - mm.
        - Miljö: lägre CO2 utsläpp genom solpaneler, materialval etc.
- Vilka effekter bedömer ni som extra viktigt för era intressenter? Både vad de vill ha och vad de kan behöva (ex. vill ha gröna avtal eller bidra till att skapa trygghet i utsatt område)
    - Med intressenter avses hyresgäster, anställda, leverantörer, köpare av bostäder samt även era intressenter (ägare, investerare)

- Vilka intressenter upplever de indentifierade positiva effekterna - vilka påverkas?
    - Boende, närområde etc.
- Hur var nivån på det område som påverkas innan den/de identifierade positiva effekterna?

- Hur många kan det handla om som påverkas av de positiva effekterna?
- Vilken grad av förändring bedöms möjlig att uppnå?
- Hur länge kan de positiva effekterna upplevas?

- På vilket sätt kan man hänföra positiva sociala och miljömässiga effekter till företagets verksamhet?
- På vilket sätt kan man särskilja dessa effekter från aktivt hållbarhetsarbete kontra hur det hade varit "annars"?

- Vilka risker finns det med hållbarhetsarbete?
- Vilka risker finns det att effekterna som eftersöks blir annorlunda en tänkt?
- Vilka risker finns det att inte jobba med hållbarhet?

- Vad hade ni velat göra/jobba med om er hållbarhetsbudget inte var begränsad?

Intervjuperson och firma:

- Person:
    - Kort bakgrund
    - Befattning/roll

- Firma:
    - Vad arbetar er firma med?
    - Vilka är era primära intressenter?

C – Core Metric Set for the strategic goal Increasing Access to Supportive Services Through Housing

Dimension	Key indicator	Insight	Metrics needed	Key indicator calculation
WHAT				
	Client Retention Rate	By collecting data on tenant retention, the property owner gets an overview of how satisfied the tenants are with their living situation - indicates the degree of housing stability	· Client Retention Rate	Number of residents at the end of the reporting period - number of new residents during the reporting period / number of residents at the beginning of the reporting period
	Importance of outcome to stakeholder	The extent to which impact and value are created, identify the risk of negative impact and unintended outcomes, and uncover ways of maximizing social and environmental value creation.	· Importance of Outcome to Stakeholder	Describe the value or importance of the outcomet from the perspective of those affected
WHO				
Stakeholder description	Stakeholder Type	Maps out which stakeholders the investment or enterprise aims to affect (e.g. tenants, distributors, employees, the environment)	· Target Stakeholders	Describe the type of stakeholders who are the target of the investment (e.g., tenants)
	Stakeholder	Maps out target stakeholders in more detail (e.g. children, the elderly, minority or previously excluded populations, low-income populations, urban populations, or geographic areas)	· Target Stakeholder Demographic · Target Stakeholder Socioeconomics · Target Stakeholder Setting · Target Stakeholder Geography	Describe the target stakeholder group in terms of demographics, socioeconomics, setting, and geography
HOW MUCH				
Scale	Number and percent of individuals housed and retained	How many of the targeted stakeholders that have been affected by the investment	· Client Individuals: Total · Client Individuals: Active · Client Individuals: New	1. Calculate the total number of residents 2. Calculate the total number of residents retained through the reporting period by: clients active at the end of the reporing period - new clients
Depth	Percent change in Client Retention Rate	The extent of which change is being experienced by the target stakeholder group	· Client Retention Rate	Calculate the percentage change of Client Retention Rate between the prior reporting period and the current reporting period

Dimension	Key indicator	Insight	Metrics needed	Key indicator calculation
HOW is change happening?				
Housing unit detials	Housing type	Maps out whether housing units are for sale, rent, or other	• Housing Type	Describes the typ of housing
	Percent of housing units improved	Maps out the number and percentage of housing units that were improved out of all units financed	• Number of Housing Units Financed • Number of Housing Units Improved	1. Identify the total number of housing units financed 2. Indetify total number of units improved 3. Calculate the percentage of housing units improved
	Percent of housing units constructed	Maps out the number and percentage of housing units that were constructed out of all units financed	• Number of Housing Units Financed • Number of Housing Units Constructed	1. Identify the total number of housing units financed 2. Indetify total number of units constructed 3. Calculate the percentage of housing units constructed
	Percent affordable housing	What percentage of units financed are considered affordable housing according to local benchmarks	• Percent Affordable Housing	1. Identify the number of housing units constructed or improved that are considered to be affordable 2. Identify total number of housing units constructed of improved 3. Calculate the percentage of housing units constructed or improved that are affordable housing
Supportive service details	Residents provided access to non-financial support	Listing types of supportive services provided through housing and how well these services are reaching residents who previously did not have access to them	• Client Individuals: Total • Client Individuals: Provided New Access • Non-financial Support Offered	1. List and describe the non-financial support provided during the reporting period 2. Indetify total number of clients who accessed each type of service during the reporting period 3. Identify number of clients who was provided access to services previously unavailable to them 4. Calculate for each type of service the precentage of clients provided access to new services
Resident feedback and protection	Resident feedback system	Identifies whether the housing facility or organization implements a system to solicit and handle resident feedback	• Client Feedback System	Yes or No
	Resident engagement with development and delivery of supportive services	If the residents are engaged in designing and testing supportive services	• Stakeholder Engagement	Describe the mechanisms in place to gather input from residents concerning product or service design, development, and delivery
	Social responsibility	If the organization has policies in place to protect its residents	• Social Responsibility Client Policies	Yes or No

Dimension	Key indicator	Insight	Metrics needed	Key indicator calculation
Metrics				
High-level understanding of other effects (Including for other stakeholder groups)	Resident individual detail	Which underserved groups are being reached by housing products and services	• Client Individuals: Rural • Client Individuals: Female / Male • Client Individuals: Low Income • Client Individuals: Minorities/Previously Excluded	Describe underserved residents
	Number and percent of residents provided new access to housing	The extent to which the organization is providing new access to housing	• Client Individuals: Provided New Access • Client Individuals: Total	Calculate the percent of residents who were provided new access
	Number and percent of resident households provided new access to housing	The extent to which the organization is providing new access to housing	• Client Households: Provided New Access • Client Households: Total	Calculate the percent of households who were provided new access
	Savings on housing unit compared to similar housing units	Resident savings on housing against a local benchmark	• Purchase Price of Product or Service Sold • Purchase Price of Product or Service Replaced	1. Identify the cost to the resident of the housing provided by the organization 2. Identify the cost of alternative, similar housing in the same/similar market 3. Calculate the Client Savings Premium: (Cost of housing - Cost of alternative, similar housing) / Cost of alternative, similar housing
	Non-financial support offered	Whether the organization provides support services, which can improve resident well-being and decision-making	• Non-financial Support Offered	List and describe the types of non-financial support offered to residents
	Housing quality certifications	Which certifications have been obtained for provided housing	• Product/Service Certification • Operation Certification	List relevant certification obtained
	Resident satisfaction ratio	Residents´ level of satisfaction with the organization´s housing	• Client Satisfaction Ratio	Qualitative data gathered from survey or similar method. "How likely are you to recommend the housing to a friend or colleague?"
	Community facilities	What type of additional community facilities built, renovated, or purchased	• Community Facilities Type	Describe the type of facility provided
	Resident retention rate	The extent to which current residents are retained between reporting periods	• Client Individuals: Active • Client Individuals: New • Client Retention Rate	Calculate retention rate
	Eviction rate	Rate of forced departures from housing units	• Eviction Rate	Calculate eviction rate

D – Real Estate Metrics identified by IRIS+

Affordable Quality Housing

Area of Buildings Reused

Area of Community Facilities Financed

Building Area of Energy Efficiency Improvements

Client Individuals: Forcibly Displaced

Community Facilities Type

Connection Type

Eviction Rate

Housing Type

Individuals Housed

Number of Community Facilities Financed

Number of Household and Business Connections

Number of Housing Units Constructed

Number of Housing Units Financed

Number of Housing Units Improved

Number of Individual Connections

Percent Affordable Housing

Setting of Housing/Community Facilities

Value of Commercial or Retail Infrastructure Financed

Value of Community Facilities Financed

Value of Housing Units Financed

Green Building

Area of Buildings Reused

Building Area of Energy Efficiency Improvements

Community Facilities Type

Connection Type

Greenhouse Gas Emissions Avoided

Greenhouse Gas Emissions Mitigated

Greenhouse Gas Emissions Mitigation Types

Greenhouse Gas Emissions Reduced

Greenhouse Gas Emissions Sequestered

Greenhouse Gas Emissions Types

Housing Type

Land Directly Controlled: Impervious Surfaces

Level of Stream Connectivity

Level of Water Stress

Number of Household and Business Connections

Number of Housing Units Improved

Number of Individual Connections

Peak Flow Rate

Stormwater Runoff

Stream Nutrient Levels Assessment

Stream Turbidity Level

Water Discharged

Water Type

Water Withdrawn