Driving Eco-Innovation together
A qualitative case study on challenges for different sized collaboration partners

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Abstract

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Background: The background to the study is found in the recent development of applying circularity on traditional processes to support sustainability and reduce food waste. Especially the saturated food industry is in need of innovation (Cooper, 2011) and it is seen as beneficial to foster eco-innovation through collaboration with others, in particular between small and large enterprises rather than them doing it alone (Hockerts and Wüstenhagen, 2010). These networks however are complex and eventually require special attention.

Research question: How do representatives of small enterprises and a global operating company view challenges in collaborating on sustainability driven projects?

Aim: Gaining insight on how an established company with environmental conscious agenda collaborates with sustainable idea providers that have sustainability at the core of their operations.

Method: This thesis is conducted with a qualitative case study using abductive reasoning given its exploratory style of execution. The empirical data is collected through semi-structured interviews. As epistemological direction social constructionism is chosen, which puts into focus that social interactions between social actors create shared meaning and realities.

Conclusion: It is identified how the case company’s collaborations with different stakeholders are impacted by challenges related to industry impact, process mobility and the ability to scale. Especially of importance is the selection of partners regarding shared sustainable values prior to start. After all, the mentioned challenges are eventually not seen as challenges but still are seen as important to achieve sustainable innovations that impact the company’s food handling.

Keywords: Collaboration, Food Waste, Eco-Innovation, Sustainability, Ecopreneurship
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>CE</td>
<td>Circular Economy</td>
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<td>e.g.</td>
<td>example given</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>i.e.</td>
<td>among others</td>
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<td>PPP</td>
<td>People and Planet Positive</td>
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1 Introduction

The aim of the chapter is to present the reader with necessary background information on the topics of food waste, sustainable entrepreneurship and eventually leading to the interaction of networks within the area. Additionally, a first introduction of the case company IKEA and its connection to the topic is given. This is needed to follow arguments and assumptions made in the thesis. By providing a problem discussion the obstacles within the topic are further described and lead to a research question. The following aim helps to answer the research question and limitations to the study help to narrow down the research area. The chapter is completed by an outline of all consecutive parts.

1.1 Background

Environmental sustainability has emerged as an increasingly important topic among corporations of different sizes and industries. Fast food chains extend their offer with plant based alternatives like Max Hamburgare who also shows since 2008 the CO2 emissions of the chosen product to their customer (Max Hamburgare, n.d.). Another example is the company Adidas who produces shoes and sportswear out of ocean plastic (Adidas AG, 2018). This trend is driven by the importance of conservation of nature due to a scarcity of resources, constant growth in world population and globalisation. Just as Carrillo-Hermosilla, Río González and Könnöla (2009) mention despite the earth’s resources being principally sufficient, an unequal distribution as well as ineffective and irrational treatment of natural resources call for action.

Especially the global food producing sector has owned its share in the discussion as one of the leading contributors of greenhouse gas emissions. Worldwide one third (approximately 1.3 billion tonnes) of all food produced for human consumption is lost or wasted, which is a waste of resources (land, water, energy) as for example the production of food which will not be consumed leads to unnecessary CO2 emissions (Gustafsson et al., 2013).

Among others the Food and Agriculture Organization of the United Nations (FAO, 2018) distinguishes between food loss and food waste. The term food waste is used for food that
would have been fit for human consumption but is discarded by choice at a late stage of the supply chain. A decrease in quantity or quality of fish and agricultural products that lead to quality and regulation concerns at early stages of the supply chain on the other hand are defined as food loss. While food waste is often linked to behavioural issues, food loss on the other hand often requires investment in infrastructure as Parfitt, Barthel and Macnaughton declare (2010). As for the benefit of reading flow and since a distinction of both will not add additional benefit to this study the term food waste is used for both in the following.

An estimated amount of 88 million tons of food are wasted in the European Union alone per year, emitting 170 million tonnes of CO₂ (European Parliament, 2017). On the other hand, there is a need for 60% more food production in order to meet growing demand caused by the growth in world population (FAO, 2018).

Besides being a threat to the climate, food waste also accounts for financial loss (Gustafsson et al., 2013). According to calculations by the FAO (2018) the full costs of food waste globally are 2.6 trillion USD annually, which includes 700 billion USD of environmental costs and 900 billion USD in social costs. Figures from the Waste and Resources Action Programme (WRAP, 2013) show that food waste accounts for 682 million GBP in the British restaurant sector covering food procurement, labour, utilities as well as waste management costs.

To combat challenges of modern time society the United Nations issued Sustainable Development Goals to be reached by 2030 and among others SDG number 12 seeks to ensure sustainable consumption as well as sustainable production patterns (SDG, 2018). The European Commission agreed on setting actions that will assure meeting the UN Sustainable Development target 12.3 to halve food waste on retail and consumer level by 2030 as well as a reduction of food loss at production stage and along the supply chain (European Commission, 2018). Also the “Courtauld Commitment 2025” supported through the Waste and Resources Action Programme (WRAP UK, 2018) is installed to meet the UN Sustainable Development Goal 12.3 in the United Kingdom. Further to
mobilize action and accelerate progress in reaching the target 12.3 executives from
governments, businesses, international organizations, research institutions and civil
societies have formed a coalition named “champions 12.3” (Champions 12.3, 2018).

The EU Action Plan for the Circular Economy (European Commission, 2015) foresees
actions that promote sustainability and circularity within operations and value generated
inside the Union. As an example, for this to measure environmental performance of a
product and communicate the information the European Union is testing the Product
Environmental Footprint. Measuring food waste in general to assess its scale, origins and
view development over time is a crucial topic for the Commission, its Member States and
stakeholders and they are there for working on a common EU methodology to measure
food waste, which is currently not existent. Furthermore, it is planned to take actions
where food waste is created due to EU legislation (food donations, use of safe unsold food
in animal feed). To avoid discarding safe, edible food it is also planned to better
communicate the meaning of “best before” dates on products.

The above-mentioned context shows the growing importance of managing food waste on
all levels along the value chain for companies following initiatives from government,
non-governmental actors and civil society.

1.1.1 Sustainable industry change
According to Cooper (2011) having to deal with a mature market as the food industry is,
makes it increasingly difficult to be innovative and create something truly game changing.
In addition, the current situation makes circularity and therewith the avoidance of
inefficient handling of food along the value chain vital for industry leader and upcoming
companies alike in order to succeed. Several case studies executed by the FAO (2014)
show the impact of small scale sustainable actions and entrepreneurship in order to
mitigate food waste. Examples show various actors taking action in e.g. improved carrot
sorting in Switzerland, use of Italian canteen surplus and comparison of feeding food
waste to pigs or anaerobic digestion in Australia.
Schaltegger, Burrit and Petersen (2003) see the potential to drive industry change especially in sustainable entrepreneurs, later on referred to as ecopreneurs. Also Kirkwood and Walton (2014) declare the way of doing business, where the environment is prioritised over profit whenever possible as ecopreneurship. They mention further that by incrementally improving their own company, ecopreneurs can educate wide audiences which benefits the protection of the environment as well. An ecopreneur is according to this an entrepreneur that found new business potential based on sustainable principles. Gibbs (2006) mention ecopreneurship as a research area within management and business studies with a focus on individuals and organisations that strive for more sustainable practices in business. Also Schaltegger et al. (2003, p. 33) first define an entrepreneur as “the founder of a new for-profit business” and then distinguish founder that start their operation with pre-existing green values. According to Hockerts and Wüstenhagen (2010) sustainable entrepreneurship discovers and exploits economic opportunities through creating an environmental and social more sustainable state out of the destabilization of a sector. This is based on the definition of entrepreneurship by Schumpeter (1983) who sees it as an innovative process that creates market destabilization and therewith a need for imitation of something new. Further O’Neill and Gibbs (2016) emphasise these new sustainable entrepreneurs don’t want to be seen as preaching, or judging people’s behaviour or stay in an eco-niche market, they still don’t aim to be seen as too business like but attempting to balance both their interests.

1.1.2 Drive through innovation
Globalization and intense competition lead to a need for continuous innovation from companies (Björk and Magnusson, 2009). Also Mascia, Magnusson and Björk (2015) see the importance for companies to actively seek innovation and therewith receive a competitive advantage in times of intense competition and technological complexity. Though according to Cooper (2011, p. 6) many businesses still “lack the needed climate, culture, and leadership for Innovation”. Similar is mentioned by Leonard and Sensiper (1998) who emphasize that new combinations of the existing and therewith innovations require communication and interaction in order to flourish. Also Björk and Magnusson (2009) declare innovation is simply put new knowledge turned into ideas but it is crucial to be precise in order to make sharing with other stakeholder or organizational members
more viable. Cooper (2011) advocate for a working climate that enables people to take on more risky and innovative projects as well as people in leadership roles that support innovation efforts not only with words but through actions. In order to prevent innovative projects from failing and therewith avoid the “valley of death” which according to Cooper (2011, p. 6) “describes the gap between conception or invention versus moving that concept or invention through to a commercialized product”, entrepreneurship that shows discipline and due diligence is required. Leonard and Sensiper (1998) write further while creativity of an individual is important in the process of innovation it is equally crucial to consider the groups creativity, which highlights the potential of collective actions to drive innovation.

1.1.3 Network connectivity
By exploring idea management Björk and Magnusson (2009) view the interrelationship between the quality of an innovation idea and the network connectivity of the idea provider and state that the more connected individuals are within a network, the higher is the idea quality. This suggests an emphasis of networking possibilities for individuals within organizations. Though results within the same study show that for ideas created within groups it is more beneficial to keep the connectivity to other individuals and groups at a low rate in order to achieve a high level of innovation.

1.1.4 Case Selection (research site and research context)
To enable a better linkage of theory and practice, this study receives its balance from a collaboration with a case company. Given its global impact and size but also since it holds operations in the area of interest for the study, the case company is chosen to be the Inter IKEA Holding B.V. including its companies within. To facilitate a better reading the case company is referred to as IKEA in the following.

Being a company of a certain size and impact, the importance of networking is seen in many of the organization’s operations, furthermore a sustainable agenda is being transferred to several business areas. Yet of certain interest for this study is the IKEA Food Services AB. Besides offering more environmental friendly, plant based alternatives to its range in the IKEA Restaurants, Bistros and Swedish Food Markets e.g. veggie balls
and veggie hot dog, IKEA committed itself to reduce food waste by half until the year 2020 (‘food is precious’ initiative, since December 2016). By March 2018 smart scale solutions provided by ecopreneurial collaboration partners helped to save 450 000 kg food from being wasted in IKEA Restaurants, Bistros and Swedish Food Markets, which equals one million meals (IKEA Food Services AB, 2018). The managing director of IKEA Food Services AB Michael La Cour is part of the Champions 12.3 coalition, which is as earlier mentioned a network of stakeholders in food industry (IKEA Range and Supply, 2017a). To foster sustainability and innovation the future-living lab ‘space 10’ in Copenhagen provides IKEA with additional insights through its ‘local food lab’, which aims at exploring “new, imaginative and sustainable ways of growing, producing and distributing healthy food in the heart of our cities” (Space10, n.d.). Additional collaboration with innovative startups is enhanced by events like the IKEA boot camp (IKEA Range and Supply, 2017b).

A more detailed presentation of the case company can be found in 0.

1.2 Problem discussion
While a large-firm focus when it comes to sustainable business practice has been discussed in many studies Hockerts and Wüstenhagen (2010) include small firms in their research to show their impact on sustainable transformation of industries. Furthermore the complexity and dynamics within organizational networks need more consideration in research as Verburg and Hoving (2007) mention.

Hockerts and Wüstenhagen (2010, p. 482) advocate for a co-evolution of ‘Emerging Davids’ and ‘Greening Goliaths’ due to a need of complementary skills to deal with sustainability challenges which “is more likely to result in sustainability than either of the two alone”.

According to Eurostat (2018) until now circular economy increased investments (15 million EUR), added 3.9 million jobs and stimulated innovation in the European Union. While circular economy has been implemented in many industries like car manufacturing
and steel production the food producing sector is according to Mirza (2016) lacking behind. In addition, smaller companies manage to include circularity in their process while big companies have difficulties (Kiørboe et al., 2015).

Laurenceau, Heald and Fanon (2017) state culture gaps and hierarchical patterns as major obstacles that hinder growth of large organizations through collaboration with startups. They however emphasise that proper managing and learning from each other cannot only help to overcome the obstacles, but also lead to benefits beyond initial market or product improvements. In addition to the above mentioned obstacles Hockerts and Wüstenhagen (2010) elaborate on differences that appear when it comes to the vision of sustainability between big companies with Corporate social responsibility activities ‘Greening Goliaths’ and new entrants to a market with initial environmental drive ‘Emerging Davids’ which can cause challenges when collaborating.

As Schaper (2002) state the focus in environmental business management has long been on how existing firms can become more sustainable. Research considered the implementation of tools to support sustainable operations and the identification of driving forces as well as potential challenges. In recent years however, the focus shifted. In order to detect links between sustainability and innovation but also the role and importance of small and medium-sized enterprises in environmental development the field of green management has been extended. Hockerts and Wüstenhagen (2010) mention that corporate sustainable entrepreneurship activities are the reaction from big companies to cope with sustainability related actions from new market entrants. They state further that the advantage for big companies lies in the broader reach which is something new entrants have difficulties with.

While traditionally the driver for collaboration with startups has been gaining access to new markets and innovative technologies the value in forming alliances can actually lie in the transfer or cultural traits and a more entrepreneurial spirit on complex and long grown corporate structures (Laurenceau et al., 2017).
There are two key factors for firms that want successfully commercialize sustainable innovation according to Hockerts and Wüstenhagen (2010): customer persuasion and government policies. Due to often higher costs of environmental innovation special effort is required in convincing the customer that a purchase is not only good for society but also for themselves. The other key factor namely ‘government policies’ plays a vital role as higher costs that occur due to special effort on the customer or development side need incentive through taxation and other policies. Also, Elkington (1998) emphasises the importance of new types of partnerships in terms of economy, society and environmental issues to achieve success in the triple bottom line.

If one believes Hockerts and Wüstenhagen (2010), different phases in the evolution of an industry require different roles and therewith firm size and innovation should not be seen from a static but rather a dynamic perspective.

Further as Russo (2003 cited in Hockerts and Wüstenhagen, 2010, p. 481) state the rise in awareness towards sustainable motivated actions made clear “that incremental solutions will not be enough to maintain critical levels of natural and social capital”. Concepts that have sustainability in focus such as sustainable entrepreneurship, environmental and ecopreneurship still struggle to receive credibility as they lack proper definition (Kee, 2017). Hobson (2016) states that it is crucial for existing business to keep the circularity and rethink the process rather than trying to fit only parts and square out the circle. Gibbs (2006) questions to which extent ecoprenuerial actions can represent a shift in small-scale business rather than serving only a niche market on a small-scale.

Under the premise that the above-mentioned complexity of networks has significant influence on innovation and sustainable development further exploration around challenges they create seem valuable. The area of entrepreneurship has been studied and also various research been done in the field of collaboration between different stakeholders. However sustainable entrepreneurship is with its distinct feature less researched and probable distinct features that influence collaboration are not available up to this day. In particular there are two main areas unveiled that receive special attention:
Sustainability with a focal point in driving change in an industry and collaboration with a focal point in the interplay between big corporations and small-scale solution provider. Both with regards to their impact on implementing food waste reduction activities.

1.3 Research question
How do representatives of small enterprises and a global operating company view challenges in collaborating on sustainability driven projects?

1.4 Aim
The aim of this thesis is to gain an insight into how an established company with a high market share and an environmental conscious agenda is collaborating with sustainable idea providers that have sustainability at the core of their operations. An elaboration on the challenges that arise out of these interactions and therewith increased awareness intends to facilitate future interactions and drive environmental sustainability.

The aim will be reached through an analysis of the case company’s’ network on creating sustainable change and how affected stakeholder perceive challenges within the collaboration. Screening of existing theories will provide input on current knowledge within the field in order to receive findings that improve and alter the existing.

1.5 Limitations
Despite food loss and waste also being created on business to consumer level the focus of this study is elsewhere and therefore seeks to exclude challenges that arise in business to consumer interactions.

The study focuses on challenges that arise within business to business interactions. Food waste and circularity are despite giving the frame for the explorations not in the centre of attention and are rather seen as technicalities. However, the overall frame of this study is food related therefore it excludes all collaborations with idea providers that operate in other fields and also those that don’t have sustainability as desired outcome.
1.6 Outline

Chapter 1 Introduction

The first chapter introduces the research topic and informs the reader with background information on food waste, sustainable entrepreneurship and innovation potential. This is followed by a brief introduction of the case company. Thereafter the problem discussion deals with the actors that drive the change in the above-mentioned topics and their networking efforts to achieve them. Finally, the research question as well as the aim of the thesis is given before the chapter closes with a remark on limitations to the study.

Chapter 2 Theoretical framework

The theoretical framework is build out of for the thesis relevant theories. Starting with a general clarification on important words used to avoid confusion later on, the chapter is continued by elaboration on green entrepreneurship and influences that control and drive sustainable business. Afterwards the topic of innovation is viewed from a sustainability perspective by also taking process complexity and barriers into account. The chapter is completed with a combined view of sustainability and business interaction backed with examples of potential networks.

Chapter 3 Methodology

The methodology chapter describes the way the research in this study is approached and how it is conducted. By collecting data through semi-structured interviews, a qualitative approach can be seen. Further the study is conducted in the manner of a single case study design. Considering the topic and context of the study abductive reasoning is applied.

Chapter 4 Analysis

The collected empirical data is presented in this chapter. First the structure of the assessment of primary data is presented in a theme matrix. Afterwards the results from semi-structured interviews and therewith the primary data in this research is combined
with documents from the case company. Therewith the IKEA story regarding sustainability and collaboration with different idea providers is told and challenges are uncovered.

Chapter 5 Discussion

This chapter seeks to elaborate on the findings supported by previously presented theory and concepts. First the topic of challenges is broadly discussed with regards to the interplay between different size stake holders. Thereafter the discoveries are critically assessed regarding their influence on the eco-innovation process.

Chapter 6 Conclusion

In this chapter the research results are put into context and therewith key findings are generated. In addition, implications for future research are presented and the chapter finds its closing by managerial implications.
2 Theoretical framework
The following shall provide the reader with additional information on areas discussed in this paper and lead to a better understanding of its interrelation with each other.

2.1 From Entrepreneurship to Ecopreneurship
As mentioned, Schumpeter (1983) considers that economic development does not happen in response to preceding economic conditions alone but is a result of all previous societal events and influences and reflects change from the world surrounding. Therewith one can see the transition from a linear economy where goods and services are produced and eventually end up as waste towards a circular economy (CE) as a result from various influences. Among others Murray, Skene and Haynes (2017) see CE as creating a closed-loop system. Also Parfitt et al. (2010) suggest a closed-loop supply chain model where waste of any kind is feed back into the value chain in order to reduce food waste.

Unlike other closed circular flows which experience constant changes and evolve static therefore the real obstacle with economic development is the occurrence of unexpected, discontinuous events or as Schumpeter (1983, p. 63) calls it “revolutionary change”. These events, although maybe out of economic nature are hard to analyse by economic methods wherefore asking how these changes take place and which phenomena they support in rising help to receive insight. These changes can be influenced by social and behavioural development such as consumer behaviour and view on the use of resources. Further transitioning towards a circular economy is an ongoing process initiated in recent years.

2.1.1 Ecopreneurship
Ecopreneurship is a development “where start-up companies specialise in providing products and services aimed at achieving a sustainable society or an ecologically sustainable society” (Schaltegger et al., 2003, p. 33). Schaper (2010, p. 81) declares a sustainable entrepreneur as someone whose “economic success is strongly linked to their environmental performance” but also someone that aims for growing markets or even increased turnover from mass markets as opposed to those bio-pioneers that operate in a small alternative eco-niche.
What sets ecopreneurship apart from environmental management or environmental administration is according to Schaper (2010) the drive that comes from within which leads to proactive engagement regarding sustainability and not reactive engagement on laws and regulations.

2.1.2 Influences on Ecopreneurship
Schaper (2010) created a conceptual model to show influential factors on green entrepreneurship divided into soft and hard structural influences. As illustrated and also according to the author agreed on in entrepreneurship literature the individual ‘Green Entrepreneur’ (Figure 1, black circle) is responsible on how ‘Green Structural Influences’ from outside are conveyed onto the ‘Green Business’.

![Figure 1: Influences on the green entrepreneur (Schaper, 2010, p.65)](image-url)
Among various factors Schaper (2010) mentions the green consumer as one of the green structural influences. This reflects Schumpeter (1983) who mentions when analysing change one has according to consider the influence of the consumers want, but not from a perspective that gives the consumer the superiority over the process. He advises further to disdain from consumer needs being spontaneous. Despite having a circular flow which implies no start or ending point the consumer want results from a business lead, learned but maybe hidden process. Innovation creation therefore must under every circumstance start from the satisfaction of a want as this being the end of every produce but the creation of such does not start with the consumer but within the business.

2.2 From Innovation to Eco-Innovation
Innovation itself has been altered by many authors since Schumpeter (1983) wrote about economic development and the importance of introducing discontinuity into circular flows. However the idea that new combination of forces or material, result in the “competitive elimination of the old” and therewith lead to change and development in industries is still valid today (Schumpeter, 1983, p. 67). Among others Parker (2005) stresses the importance of innovation in entrepreneurship to achieve evolution of an industry. This innovation forces the entrepreneur to leave its known circular flow or change the channel which requires a certain attitude.

The dilemma within innovation is discussed by Christensen (2013) as such, that it causes big firms to fail when there is a new, innovative entrant to a market. This gives the motivation for established companies who previously focused on economic incentives to change their view. Verburg and Hoving (2007) emphasize the innovation process is dynamic and non-linear. As such one can see a complexity which has implications on various levels. Just as Rasmussen and Hall (2016) mention, there are various models by various authors that illustrate the innovation process. They however mention that most of the models only focus on the innovation generation process but lack in depth knowledge on the adaptation stage. Schumpeter (1983, p. 89) further mentions that “innovations which it is the function of entrepreneurs to carry out need not necessarily be any inventions at all” and advocates for less focus on inventing to drive change, as the
emergence of such is often more misleading and slowing down real change. Parker (2005) mentions that in fact it is more beneficial to exploit innovation as this is economically more valuable than creating knowledge.

As complex one can view the innovation process itself, Carrillo-Hermosilla et al. (2009) additionally elaborate on the countless amount of sustainability concepts issued by various sources and stakeholder. They see this as an indicator for the importance of the topic itself but at the same time find an affirmation to the complexity of it. Especially compromising between business concerns and sustainability seems to cause obstacles. Carrillo-Hermosilla et al. (2009) therewith mention eco-innovation as contrasting concept that seeks to avoid compromising between both.

2.2.1 Eco-Innovation
To achieve more with doing less, meaning to support economic growth as well as employment by at the same time putting less pressure on the environment is what Carrillo-Hermosilla et al. (2009) call eco-efficient innovation. This is also supported by a model proposed by the European Union (Figure 2) which puts eco-innovation in the centre of attention with all other processes lining up to it. The European Commission (2017) sees eco-innovation as an opportunity to create new business, jobs and growth within Europe without compromising the environment. Estimations see potential of 227 billion euros turnover annually. Further they see the potential especially for small enterprises that can benefit from their process agility. By now already almost half of European companies that operate in manufacturing, agriculture, water and food service benefited recently from eco-innovation.
A corporate culture that favours change and is generally more proactive towards environmental protection and innovation is often required for eco-innovation as this special type of innovation bares risks. Considering the environmental aspect is in addition something that needs to be valued highly from company side as external incentives such as environmental policies are often either not existing or not stringent enough. (Carrillo-Hermosilla et al., 2009).

2.2.2 Influences on Eco-Innovation
Despite holding competitive gains as well as benefits from a social and environmental perspective, eco-innovations don’t diffuse without any resistance. Factors like barriers and the absence of drivers are context-specific and some difficulties faced by eco-innovations are unique to eco-innovations while others are not. (Carrillo-Hermosilla et al., 2009).
Internal factors that have an effect on development and adoption of eco-innovation are characterised by Carrillo-Hermosilla et al. (2009) through e.g. the financial situation, company size and age, position in the value chain as well as area of operation in terms of geography but also industry.

**Financial situation**
Eco-innovations require often a significant amount of money to be invested which might not have a short payback time. While companies who are in a good financial position will have no trouble in engaging and even receive benefits from eco-innovation, the financial situation often puts pressure on small enterprises. (Carrillo-Hermosilla et al., 2009).

**Size of firms**
Small firms are according to Carrillo-Hermosilla et al. (2009) less likely to engage in eco-innovation due to their size. Having an extensive supply of human and technological resources is therewith supporting the innovation drive of large enterprises. This also aligns with Schumpeter (1983) who sees the distribution of production means and more efficient utilisation of processes is in general more given when applied on large scale business.

**Position in the value chain**
It is likely that firms face pressure from final consumers if they operate at the end of the production process (Carrillo-Hermosilla et al., 2009).

**Age of the firm**
Essential infrastructure, meaning trained workers and knowledge on market conditions are more likely to be given in established, large scale business (Schumpeter, 1983). Which is also what Carrillo-Hermosilla et al. (2009) mean by saying that a certain experience level and eventually human capital acquired throughout a long history of existence can be beneficial and old firms also tend to have a more sound system set in place. Albeit all these factors can also lead to a certain level of inertia that produces a resistance especially towards radical changes. (Carrillo-Hermosilla et al., 2009).
**Multinational or local character of the firm**

Whether a firm belongs to a multinational group or it operates on local level can have contradictory impact on development and adoption of eco-innovation. Despite having plenty of resources at hand, firms operating within a large network might face troubles due to corporate set of rules and regulations that effect their decision-making processes. (Carrillo-Hermosilla et al., 2009).

**Characteristics of the sector**

As Carrillo-Hermosilla et al. (2009) mention depending on the market structure the likelihood of innovation and eco-innovation in particular is either increased or hindered. A monopolistic setting leads to potential for bigger scale and therewith reduced fix costs as well as less danger of imitation. Yet these factors give less incentive to innovate. On the other hand, if a small firm operates on a competitive market, innovation can be the single chance to survive. Furthermore the key to change industries with a given set up lies as Schumpeter (1983) states in reassembling the existing factors i.e. performing an entrepreneurial action by creating new combinations which in an initial stage also yield entrepreneurial profit.

### 2.3 Collaboration and Idea Networks

An innovation network, meaning a collaboration to source ideas is generally seen as constructive. Generating ideas from external sources can have benefit for firms and enhance innovation according to Björk and Magnusson (2009). They argue that this so-called open innovation networks create new knowledge through exchanging expertise. Also Verburg and Hoving (2007) see the access to sources of knowledge that are heterogeneous as key driving force to construct innovation networks.

Writing about collaboration with different actors Schumpeter (1983) mentions that it happens that a new combination of sources is executed by different actors than the one that is being replaced by it, but this is neither a requirement nor a guarantee for success. It is however another discontinuity added to the process which has impact on the rise or
fall of involved actors, old and new and therewith gives livelihood to the existing. As
Verburg and Hoving (2007) mention having a knowledge-based economy and simplified
access to tools that enable communication flows makes it interesting for organizations to
engage in various kinds of networks. They note three assets from collaboration for
companies which are remaining innovative, competitive and efficient.

As Perry-Smith and Mannucci (2017) state different stages in the idea generation process
(generation, elaboration, championing, implementation) require different social networks
and different strong ties between actors. Cognitive flexibility is required in the generation
phase and feedback and emotional support are of special importance in the elaboration
phase. As for the championing phase influence as well as legitimacy are needed and once
the implementation phase is reached a certain importance for shared understanding of a
vision is crucial. Verburg and Hoving (2007) mention further that external collaborations
and being involved in networks becomes increasingly important for organizations. To not
only stay current but also advance the business companies need to join networks as they
simply put are not any longer able to afford relying on their own ideas or restricting their
innovations towards a single direction. Chesbrough (2003, in Verburg and Hoving, 2007,
p. 1015) emphasize the shift in the innovation process from closed internal to open
systems.

Mascia et al. (2015) give value to the context social networks take shape as according to
them this influences network formation and change regarding degree of stability, speed
of evolution, emerging structures and change leading mechanisms.

2.4 Challenges
One can see in literature that there is different understanding of the term ‘challenge’. To
better distinguish and receive a clear accord of how it is used in this study the table below
and chance.
Table 1: Definition Overview: Challenge, Problem, Chance (from Cambridge Dictionary, 2018)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Problem</th>
<th>Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>“a job, duty, or situation that is difficult because you must use a lot of effort, determination, and skill in order to be successful”</td>
<td>“a situation, person, or thing that needs to be dealt with or solved”</td>
<td>“Opportunity; an occasion that allows something to be done”</td>
</tr>
</tbody>
</table>

The table above shows one definition for challenge, depending on a person’s background knowledge and context the individual’s definition of challenge can differ. Among others Mascia et al. (2015) mention as challenges for innovation management the often unintentional uncertainty that is caused by different actors actively working together on an innovation process. Further one could also see the differences in perception of environmental sustainability as an arising challenge for involved actors. Hockerts and Wüstenhagen (2010) mention two difficulties that can cause trouble or at least need to be taken into consideration in sustainability driven projects, customer persuasion and government policies. Reason for customer persuasion being the problem that eco-innovations often require more money and investment and therewith the customer needs to be made aware of the additional benefit.

2.5 Linkage of theory and concepts
The Figure 3 below gives an overview of the identified key concepts and formulated theory. It illustrates their relationship with each other and guides the development throughout the study by providing a logical structure. Both innovation and entrepreneurship are viewed from a sustainability perspective which lead to eco-innovation and ecopreneurship as central themes. These both in addition are influenced by various factors. The whole setup is chosen to provide a basic background for the need of collaboration and idea networks between Small and Large Partners. With the focus
being on the challenges created in all interactions connected to the prior mentioned, one narrows down the complex nature of this field of research.

Figure 3: Relationship between used theory and concepts (own illustration)
3 Methodology
The following chapter describes the way the research in this study is approached and how it is conducted. First the research approach and the research design are introduced. Thereafter and since the study is executed in the manner of a single case study design the research site including introduction of the case company is presented. Following these sections, the methodological frame provides an overview of the philosophical perspective that is applied as foundation to the study and further gives introduction to the abductive reasoning strategy that results from the topic and context of the study. The methodological assumptions inform the methods used in the study. The chapter closes with information on the data analysis and thereafter the research process is once more illustrated.

3.1 Research Approach and Design
As stated by Ghauri and Grønhaug (2010) a strategy behind the research design is essential to avoid errors and maximise output. Provided that the chosen research design fits the research problem relevant data can be collected. The nature of this study is unstructured which leads to an exploratory research approach that is illustrated in Figure 4 below.

Figure 4: Illustration of abductive research process (own creation)
The study originates in a broad initial exploration of literature in the field of entrepreneurship with a focus on actions connected to sustainability and networking challenges within. Through gaining an understanding of the concept of sustainable entrepreneurship and influences on ecopreneurship, the area of challenges is added to the theoretical frame. The initial search is therewith complemented with for the study relevant additional theories. These explorations lead to and abductive approach for the study and to go further with qualitative data collection in form of semi-structured interviews in the case company IKEA and their external partners. By having a broad theoretical direction given relevant questions for the semi-structured interviews emerged but enabled some flexibility on location. Due to this explorative nature the theory is adapted according to findings from the semi-structured interviews. The insights gathered from the semi-structured interviews are combined with selected theories in form of an analysis. This analysis leads to more engagement in the following discussion and key findings are repeated in the conclusion where also the research question is answered.

The research looks into a phenomenon, which is in this case defined as the current collaboration efforts between small and larger sized partners to achieve eco-innovation in terms of food waste reduction. Since it deals with a phenomenon at a certain time one can refer to the study as cross-sectional study. A time constraint often leads to a cross-sectional approach with quantitative surveys or qualitative case studies that use interviews for data collection as Saunders, Lewis and Thornhill state (2015).

3.1.1 Case Study Design
In order to be qualified as a case the element to be studied needs to be distinctive and possible to be studied in isolation of its context (Denscombe, 2014). Many subjects can be in focus when doing case study research which is according to Yin (2012) an in-depth inquiry of a real-life topic or phenomenon. The case itself that can be studied can range from managers, to working teams, organisations, associations or even a change process or event. Saunders et al. (2015) emphasise the quality of receiving insights from intensive and dynamic cases to achieve rich understanding of a phenomenon. For Blaikie (2009, p. 11) “case studies are neither research design nor methods of data collection”, they rather require attention when the collected data is being generalized. Generalization is however
limited in social research as time and space the research is carried out require extensive judgement. (Blaikie, 2009). As Märkelä and Turcan (2007) consider case study not as a distinct form of methodology but rather a constructed concept to support a choice

A case study is especially fitting for small-scale research as it is the case here. It enables the concentration on one research site (IKEA) and in addition gives the possibility to gain in depth understanding of a social phenomenon which is in this case the whole collaboration efforts to drive sustainability and eco-innovation (Denscombe, 2014).

3.1.2 Research Site
As introduced earlier this study draws from a case study conducted at IKEA, which is best known by its customers as Swedish furniture retailer. In the financial year 2017 the company recorded 780 million customers in their 414 stores in 49 countries around the world (Inter IKEA Systems B.V., 2017). Besides its operations in home furnishing the multinational IKEA conglomerate also holds a division in food within its range and supply section (Figure 5 for illustration of the organizational structure). Throughout the case company the principles of democratic design are applied which value sustainability, form, low price, quality and function in equally important way (Inter IKEA Systems B.V., 2017).

Figure 5: Organizational structure of the case company (adapted from Inter IKEA Systems B.V., 2016)
IKEA Food Services AB contributed to the business with a turnover of 1.8 billion Euros in the financial year 2017 generated from 660 million people at IKEA Restaurants, Bistros, Swedish Food Markets and co-worker restaurants (Inter IKEA Systems B.V., 2017). Considering the impact of it on global scale the reason of choice for the case company in this study is given as it enables explorations within the food industry by at the same time receiving the large, global perspective on the development of the industry. The ‘food is precious’ initiative aims at cutting food waste by 50% by the end of the fiscal year 2020 (IKEA Range and Supply, 2017a).

3.1.3 Research context
The particular context of interest in this study is the recent growth of interacting with smaller idea providers. The development of driving the industry and therewith enable sustainable change to achieve a better everyday life for the many people has gained momentum within the case company. In fall of 2017 IKEA hosted its first ‘IKEA Bootcamp’, a 3 month startup accelerator program aiming at co-creating with innovative startups from around the world. (IKEA Range and Supply, 2017b). Further a collaboration with Space10, a future living lab and idea hub in Copenhagen is providing the case company with fresh and futuristic concepts on topics of sustainability, digitalization and sharing (Space10, n.d.). Talking in particular about the IKEA food division a collaboration with two sustainable startups that provide the restaurants with smart scale solutions to measure food waste helped avoiding 450.000 kg of food waste already since the start of the ‘food is precious’ initiative (IKEA Food Services AB, 2018). Especially the opportunity to view the topic of challenges of interaction between small and large actors seems fruitful.

3.1.4 Exploratory, non-probability, purposive sampling
The above mentioned events of collaboration are still relatively unexplored given their short time of existence, therewith one can see the use of exploratory sampling as it provides the researcher according to Denscombe (2014) with the means to generate insights.
Further this study uses non-probability sampling due to some constraints within the selection of respondents. The researcher relies on one gate keeper at the case company setting up the contacts and therewith has not a complete access and limited choice of sample. Certain requirements for the sample contacts (relation to food waste, sustainability, ecopreneurship, entrepreneurship) where requested by the researcher from the gate keeper. This process which one could see as a sampling frame did in a way lead to a certain bias as it did systematically exclude respondents from the sample. However by applying purposive sampling meaning to have ‘hand-picked’ respondents it is possible to focus on the relevant and therewith receive eventually a better outcome. (Denscombe, 2014). This also aligns with King and Horrocks (2010) who mention diversity of respondents as the most common criteria used for sampling in qualitative research which refers to recruiting a diversity of respondents to assure meaningful differences in the data.

In case of this study it was of value to focus on the quality information and research insights. Since it seeks to explore challenges in collaboration for sustainability driven projects related to food, it is legitimate to decide for the case company which operates a global operating network of restaurants.

3.2 Methodological frame
The following methodological assumptions influence the way the research is carried or as Crotty (1998) mentions, it is the way of looking at the world and making sense of it. Also according to King and Horrocks (2010) it is the process that justifies and determines the research design and informs the choice of method used in the study. As Saunders et al. (2015) emphasize every form of research helps to develop knowledge in a certain area, the assumptions and believes that motivate a research in a field however have an impact on the research process and its result and therefore need to be taken into consideration. The discovery of which assumptions are embedded in the research often relates to language and communication. The way in which the assumptions are justified and grounded is presented in detail by the view of social life within human world. (Crotty, 1998).
3.2.1 Philosophy
King and Horrocks (2010) stress that different philosophical, theoretical underpinnings lead to different perspectives that complement knowledge in different ways but influence what one might need to know. Alvesson and Sköldberg (2009) state that everything from primary data like statements of interview subjects to secondary data like statistics is a result of interpretation and its context. Internal factors influence research as much as external factors. Knowledge and social cultural traditions as well as language understanding and narration coming from the researcher form the research context. Potentially it does also create blind spots derived from taken-for-granted assumptions. Also Ghauri and Grønhaug (2010) state that social knowledge builds on one another and imply therewith the importance of taking various factors into account. A researcher needs to know up to which extend personal believes and assumptions contribute to understand the worlds nature and at which point they harm the research outcome (Saunders et al., 2015). It is crucial according to Alvesson and Sköldberg (2009) to carefully asses why a certain interpretation is made prior to forming reality out of it. They elaborate further that more value can be given to collected data by applying a reflective empirical research where the focus is shifted from pure handling of empirical material to taking various circumstances into account.

In the knowledge of the above-mentioned importance of context, in this thesis, assumptions and beliefs are taken into account constantly by reflecting on potential effects of certain external factors and internal knowledge on the study. Albeit a reflexive research approach as proposed by Alvesson and Sköldberg (2009, p. 8) that draws “attention to the complex relationship between the processes of knowledge production and the various contexts of such processes, as well as the involvement of the knowledge producer” is not entirely possible due to external factors that were not entirely under control of the researcher (see 3.1.4 Exploratory, non-probability, purposive sampling for further ethical perspective).

Bryman and Bell (2015) define two types of assumptions that direct research philosophy and influence the process: Epistemology and Ontology. An additional assumption is
added among others by Saunders et al. (2015) which is Axiology. On the contrary to Bryman and Bell as well as Saunders et al., Crotty (1998, p. 10) argues

“ontological issues and epistemological issues tend to emerge together (...)” as “to talk of the construction of meaning is to talk of the construction of meaningful reality (...)”

and it is therefore difficult to keep both apart from each other conceptually. In this thesis epistemology is in focus.

**Epistemology, social constructionist view**

The core focus in epistemology is on what is or should be a disciplines’ accepted knowledge (Bryman and Bell, 2015). Also Crotty (1998) states that epistemology provides a philosophical base to understand which type of knowledge is produced and in addition gives assurance that the knowledge is legitimate and adequate. It is the understanding of knowledge that comes out of a theoretical perspective and needs to be identified, explained and justified. Likewise King and Horrocks (2010) mention conversations do not always convey knowledge but rather bring it into being. They state further that it is not a vacuum where methods and methodology exist but rather new ways to contribute to and draw from thinking about the world. Saunders et al. (2015, p. 129) formulate the central question in epistemology as “How can we know what we know?”. Providing various methodological approaches to alter knowledge make epistemology especially important and relevant for business research, given the variety of acceptable assumptions it is however critical to understand the individual implications. As constructionist research suggests, meaning is not discovered, but constructed implying that through social interactions people create their own reality and meaning out of the world which shows an interpretive approach (Crotty, 1998).

With that being said the studies epistemological direction is decided to be social constructionist which puts according to Bryman & Bell (2015) into focus that social interactions between social actors create partially shared meanings and realities. This decision has substantial effect on the data collection and the sense making in the analysis of the collected data.
In this study where understanding of collaboration in networks which are socially constructed is gained through interviewing members of them, it is of importance to critically assess what is being said in the context of the individual to establish truth. As this study that looks into activities connected with environmental sustainability and challenges one could assume that participants as well as the researcher itself have a certain personal truth to the topic which is determined by what is socially expected and accepted. Throughout the research process this is taken into consideration and paid attention to how the concepts or term of ‘challenge’ and ‘sustainability’ are mentioned by the individuals and support these with quotes.

3.2.2 Abduction
In order to answer a research question, research strategies like induction (empirical evidence), deduction (logic) and abduction are used (Blaikie, 2009). Based on Saunders et al. (2015) there are research areas where a clear inductive or deductive approach is not conducive. Particularly in business and management research it is abduction that helps to excel. In case of dealing with a topic that provides plenty of existing information in one context but very few in the context the research is supposed to take place an abductive approach helps to modify existing theory rather than create a new one. As Blaikie (2009) states abduction is the strategy that generates social scientific knowledge out of everyday accounts. Further social science usually starts with words rather than numbers i.e. it favours qualitative research (Blaikie, 2009).

This study is considered to be abductive as it is despite having features of induction and deduction mainly based on modifying existing theory and furthermore the research area is researched in areas like innovation but sustainable entrepreneurship is fairly new, similar applies to collaboration challenges regarding sustainability driven projects.

Following an abductive approach and therewith moving between theory and practice also the research question is refined along the development of the understanding of the research area. Initially a ‘what’ question, that according to Blaikie (2009) is fitting almost any purpose to search for simple descriptions seemed suitable. The interest for
understanding more detailed however lead in the end to the decision of working with a “how” research question that seeks to uncover underlying mechanisms as Yin (2014) declares and is concerned with explaining as Blaikie (2009) mentions.

3.2.3 Reliability and Credibility
Reliability is given according to Saunders et al. (2015) if a research design is replicated and the same results are achieved. However as Denscombe (2014) mention using criteria conventionally used in quantitative research is often not feasible. A reason for that Denscombe (2014, p. 297) states that it is “impossible to replicate a social setting” as chances of “assembling equivalent people in similar settings in a social environment that has not changed” are low. Another reason is that the researcher itself tends to be close bound the study through the collection and analysis of data almost becoming part of the data itself. Hence it is difficult to receive similar understanding and identical conclusions from a different researcher in a repetition.

By supplying information why certain decisions are made and distinct procedures are followed throughout this study the researcher tries to create a proxy that can be applied on subsequent studies. Giving as much detail on the methods, analysis and decision-making in order to show the reader explicit accounts that lead to conclusions enables a check on reliability (Denscombe, 2014).

Validity is given when appropriate measures are used, the analysis of results is accurate and it is possible to generalize findings according to Saunders et al. (2015). Although one can say that it will never be possible to duplicate and verify qualitative research the way quantitative is, different sources propose a more pragmatic approach (Denscombe, 2014). Instead of trying to a guarantee validity of data a reassurance that the produced data is checked and in accordance to good practice can serve its purpose. Tools to achieve this are checking back on participants after the data was collected and analysed to see if it is accurate from their account, grounding data in extensive fieldwork or use triangulation of data.
It is decided that due to time constraint the data is not extensively double checked by the participants which would also mislead outcome and have the risk of participants wanting to polish their contribution. In addition, a full triangulation is also not possible but is advised to consider for future research. The tool chosen in this study to assure credibility is grounding data through extensive knowledge of the field. This knowledge is gained through reviewing literature and supported by organizational documents.

3.2.4 Ethics

From an ethical perspective Saunders et al. (2015) state research design should not expose those subjects studied to embarrassment, cause them pain, be harmful or in any other way be disadvantageous. This also aligns with Diener and Crandall (1979, in Bryman and Bell 2015, p.134) who narrow down four main areas that infringe ethical principles: harm to participants, lack of informed consent, invasion of privacy, implication of deception. As Bryman and Bell (2015) mention there can be an overlap between the four dimensions. Based on King and Horrocks (2010) researcher are influenced by their individual morality and understanding as well as feelings and positions on certain topics while conducting research which will have an impact on research ethics. A further concern Bryman and Bell (2015) mention is confidentiality which has to be taken with caution especially in qualitative research. Statements can be traced back easily even when pseudonyms are used and difficulties grow in particular with large and well-known organizations. It is therefore crucial to keep the identity and all recordings from individuals and organizations confidential and anonymous unless all affected stakeholders agreed otherwise beforehand. As King and Horrocks (2010) additionally stress researchers are obliged to consider ethics and morality not only in direct research practice but also include factors that define a research from a practical perspective and epistemological or ontological assumptions. It is essential to not only consider ethical responsibility towards studied subjects but also towards the target group that the knowledge is produced for.

Since this study is executed in collaboration with a large and well-known organisation a special caution was taken to not harm interview participants and infringe their privacy by providing a form of consent to sign. The form of consent (Appendix B: Consent Form) provides both researcher and participant with control over collected data.
3.3 Data Collection Method
While methodology informs the research, methods are the procedures that are used to collect and analyse data (King and Horrocks, 2010). Data collection in this study is conducted by semi-structured, personal interviews with key individuals. Using this form of interview provides enough flexibility to collect diverse qualitative data while still providing the researcher with a broad framework which helps to achieve the aim of the study.

3.3.1 Qualitative approach
The variety of data collection techniques is vast, though there are two main directions that can be chosen to design a research: qualitative and quantitative. Qualitative research is the research of words (Bryman and Bell, 2015) or as Saunders et al. (2015) define it as non-numeric data collection unlike quantitative research that has its focus on numeric data. The emphasis and importance on context in qualitative research additionally supports the process of making sense of a particular experience (King and Horrocks, 2010). Here one can see the benefit of qualitative research for this study as it aims at understanding words which is according to Bryman and Bell (2015) another distinct characteristic of qualitative research. In addition due to the topic of balancing sustainability goals and business requirements in collaboration between different sized parties is fairly new, gaining first insights from a qualitative perspective makes sense (King and Horrocks, 2010).

Critiques argue that qualitative research is often too subjective and difficult to replicate since it is up to the researcher to decide significance and importance of collected data and choose focus in interpretation of it (Bryman and Bell, 2015). As debilitation to this it is important to stress the study’s focus on an individual case wherefore a replication is not the aim but rather a support to deepen knowledge on the topic itself. Furthermore findings of qualitative research are often argued as being not generalizable as interviews or other qualitative data collection methods only show the opinion of a small sample. It is however not the goal of this qualitative research to generalize population but rather to generalize to theory.
3.3.2 Semi-structured interviews
For this study primary data is collected through interviews. Besides gaining a broad and deep answer to the research question Blaikie (2009) describes it as an asset of interviews to receive insights in a persons’ activities, values or attitudes towards certain events, which is of particular interest in this study to receive insights from the field. As King and Horrocks (2010) state flexibility is the key in qualitative research and thus requires the interviewer to be attentive during the interview and able to adjust in order to support the investigation. Additional help can be found in form of an interview-guide which only outlines main topics but shows flexibility in the way questions are phrased during the interview. The scope of the interview guide can be determined through some informal preliminary work from the researcher.

The chosen interview language was English. This is not the native language of all interview partners, which one also need to consider regarding understanding and expression of things said. Especially qualitative research is interested in listening to and understanding participants and is thus likely to use open-ended questions, which is reflected in this work through a certain flexibility in the posed questions. (Creswell, 2007). Additionally asking further questions that provide the respondents answers with something that seems significant to the research study was also considered as an option (Bryman and Bell, 2015). All these features lead to an alteration of traditional interviews in case of this study, meaning semi-structured interviews are used to better facilitate receiving various insights and understanding of the respondents’ views on collaboration and interaction. Semi-structured interviews refer to conversations with individuals by having certain questions prepared in a general form but being able to ask them at different stages during the interview unlike with having a full interview schedule planned out (Bryman and Bell, 2015).

Due to the personal interaction between the interviewer and the respondent but also because of the deep knowledge the interview needs to acquire beforehand, Ghauri and Grønhaug (2010) see interviews as one of the best methods to collect data. The aim of the research was to conduct face to face interviews to avoid misunderstandings and ensure clear conversations. Unfortunately, this was not possible for all interviews executed in
this study due to geographic distance and or time constraint. Therewith three interviews were executed using the web video chat application Skype. In the knowledge of eventual complications caused by this constraint the researcher was especially careful during the web-based talks and paid attention to language regarding speed and understanding. Apart from the three interviews executed through distance the talk with the remaining seven respondents took place in a “semi-natural setting” which helps according to Blaikie (2009, p. 22) to provide a balance in context between falsified response influenced by either artificial setting and too unorganized data retrieved from completely natural settings.

The questions that created the semi-structured interviews were derived from theory gathered until this point and influenced by the initial review of literature. According to King and Horrocks (2010) changing the interview guide over the course of data collection is not only allowed but even advised if adjustment hold a better research outcome at hand. Hence the first few interviews informed the subsequent and by being aware of potential changes distorting the analysis of data later on is avoided. The alteration of questions did take place in this study and one could see the impact of having questions more informed from practice on the overall result of the interviews.

The conversation questions can cover a range of different areas from background and demography questions to experience and behavioural questions, opinion and value questions up to feeling questions (King and Horrocks, 2010).

The preparation for the interviews included the development of an interview guide which served as template for the execution of the interviews. The guide is divided into four areas: A) General, B) Sustainability & Waste, C) Process & Projects and D) Collaboration, Ideas, Application (the full Interview Guide can be found in the appendix A). The individual talks took around 50 minutes each and where executed on location on various sites of the case company in Sweden (Älmhult and Malmö) as well as Denmark (Copenhagen). As mentioned earlier three additional interviews took place via Skype due
to constraints in time and geographic distance. In total primary data was collected through the contribution of ten individuals and took place from March 2018 to May 2018.

All ten interview partners (Table 2) share a common interest in sustainability but with a difference in intensity and importance in their daily working life. According to this an allocation into two sub-groups (external and internal) was made prior to executing the interviews. This step was seen as necessary in order to keep a balance in the sample and therewith more equilibrium in the analysis. To assure anonymity and assist the reading further on, all names are replaced by fictional, Nordic names. A special attention is paid in the choice of names by deciding to have all participants representing the external group starting with an “E”, while all chosen names for participants representing the case company and are seen therewith as internal start with an “I”.

Table 2: Overview of interview partners with fictional names

<table>
<thead>
<tr>
<th>Interviewee, Position, Company</th>
<th>Place</th>
<th>Date</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erik, Chef and Food Designer, <em>idea hub</em></td>
<td>Copenhagen, DK</td>
<td>2018-03-28</td>
<td>50 min</td>
</tr>
<tr>
<td>Eva, Process and Business Developer, <em>idea hub</em></td>
<td>Copenhagen, DK</td>
<td>2018-03-28</td>
<td>40 min</td>
</tr>
<tr>
<td>Elias, Farmer and Plant Engineer, <em>idea hub</em></td>
<td>Copenhagen, DK</td>
<td>2018-03-28</td>
<td>45 min</td>
</tr>
<tr>
<td>Evan, Business Owner, <em>eco-startup</em></td>
<td>Online</td>
<td>2018-05-02</td>
<td>45 min</td>
</tr>
<tr>
<td>Eskild, Business Owner, <em>eco-startup</em></td>
<td>Online</td>
<td>2018-04-16</td>
<td>40 min</td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingrid, Supplier Code of Conduct, <em>Inter IKEA Systems B.V.</em></td>
<td>Malmö, SE</td>
<td>2018-03-23</td>
<td>45 min</td>
</tr>
<tr>
<td>Isaak, Sustainability Policy, <em>Inter IKEA Systems B.V.</em></td>
<td>Malmö, SE</td>
<td>2018-03-23</td>
<td>45 min</td>
</tr>
<tr>
<td>Ida, Food and Sustainability Manager, <em>IKEA Food Services AB</em></td>
<td>Online</td>
<td>2018-03-27</td>
<td>60 min</td>
</tr>
<tr>
<td>Iben, Entrepreneurship and Innovation, <em>IKEA of Sweden AB</em></td>
<td>Älmhult, SE</td>
<td>2018-03-20</td>
<td>50 min</td>
</tr>
</tbody>
</table>
3.4 Data Analysis Method

Saunders et al. (2015) stress the importance of adequate analysis in qualitative research given the complexity of words and the possibility of multiple meanings depending on context, experience and knowledge. The quality of the research result therefore very much depends on the interplay of data collection and analysis. As King and Horrocks (2010) mention a differentiation is often made between an analysis that focus on language and an analysis that is concerned with the content. The latter is often applied in phenomenological approaches, qualitative case studies and to build grounded theory as it is interested in the lived experience of participants and how they make sense of it. This is also the case for this study.

King and Horrocks (2010) state that there are two approaches when it comes to analysing qualitative data from interviews. Either a complete transcript of every interview that provides written confirmation and an intense overview of all collected primary data or an more thematic approach. Further they mention that transcription as the first step in data analysis as it helps the research to become closer with the data.

3.4.1 Transcription

As King and Horrocks (2010) state having a full transcript is a time-consuming effort that might not be worth given a time constraint that could rather be invested on analysing the collected data itself. Since this study is less concerned with how language is used and has rather a focus on identifying a broad pattern of a common theme with a bigger number of interviewees e.g. a case study of an organisation a description word by word (verbatim) is not necessary as King and Horrocks (2010) mention. As Saunders et al. (2015) mention in order to reduce transcription time it is possible to use data sampling by only transcribing those sections of the audio-recording that is pertinent to the research. Data sampling requires to listen and re-listen to the recording carefully and needs checking of transcribed sections with caution. Eventually there is a need to turn back later to the recording to understand certain meanings and avoid misinterpretation.
The approach taken in this study was to listen several times through the material and create a transcript that covers all sections that are of relevance to the study in order to be able to deduct themes for coding from it.

Transcription can face three main threats according to King and Horrocks (2010, p.144): recording quality, missing context, and ‘tidying up’ transcribed talk. To avoid these mentioned problems extensive care was taken already during data collection prior to data analysis. The researcher made sure to speak loud, clear and slow and reminded the interviewee to do so too to improve the quality of the recording. The researcher made sure that the setting of the interview did leave no space for distressing environment by having separate interviews with the participants where possible and a closed area. King and Horrocks (2010, p. 148) emphasise that it is “not the purpose of transcription to produce a corrected version of what people have said, but rather an accurate one.” To avoid guessing of words that where inaudible or correcting text that was grammatically incorrect the researcher paid attention to make no false guesses that could negatively influence the research outcome.

King and Horrocks (2010) mention that there are differences between how stories are told (life as told) and how they have happened (life as lived). Being aware that the human nature seeks to create meaningful stories and therewith excludes less decisive details and alters information helps to assure authenticity for social research.

3.4.2 Thematic analysis approach
As Saunders et al. (2015) state thematic analysis is common in qualitative research and looks for themes or patterns throughout the collected data. It requires coding of parts that are relevant to answer the research question. Being able to answer the research question was one of the frames in the study to create themes. Further the themes developed from reoccurring features characterizing particular perceptions and experiences also how King and Horrocks (2010) state. The possibility of combining deduction and induction as Saunders et al. (2015) suggest was considered too by starting with theoretically-derived themes and modify them over the course of exploration of the data set.
Applying coding requires according to Saunders et al. (2015) the formulation of a single word or phrase that refers to the section or unit of data. Codes can be either data driven i.e. derived from terms used by participants or descriptive for the unit of data or theory driven i.e. derived from terms used in theory and literature. In this study the codes evolved out of the data as well as from the theory. Just as King and Horrocks (2010) emphasise themes or codes must be distinct from each other to avoid blurring of interpretation but should not be so unique that assigning data to it is difficult. In case of this study a word or term only became eligible when it was used by several interviewees several times. In a next step finding a pattern of themes in the full data set helps to say something about the participants group as a whole. Additionally in this very study it was attempted to organize the conceptual themes to some degree to support the research outcome. (King and Horrocks, 2010).

The applied coding theme process (Figure 6) shows that the overarching theme is “challenges in collaboration between different sized stakeholders”. The interpretive codes are divided into three identified challenge areas and each of these areas is supported by descriptive codes.
3.4.3 Quality criteria
As King and Horrocks (2010) mention unlike in quantitative research there is no common agreement on criteria to use for assessing quality in qualitative research. If one considers that there are no limitations in how language constructs reality it makes no sense to create criteria that seek to assess the value of one of the different realities.

In case of this research many interpretations and therefore realities could be created. In order to assure quality, the concept of triangulation is used. Taking not only the collected data from primary research but also different theoretical models as support helps to make sense of the whole data set and refers to theory triangulation (King and Horrocks, 2010).

3.4.4 Organizational documents
The first insights on the topic from the case company’s perspective is gathered through organizational documents. As for this study the importance of organizational documents
is supported in two ways. First it provides an understanding of the case company’s point of view which is crucial for the subsequent data collection as it helps creating questions. Secondly the sheer existence of the documents shows the case company’s interest in environmental management. The table below includes all sort of documentation released by the case company that seems to be of relevance in the area of interest of this study meaning the frame of food waste and sustainability.

Table 3: Overview of reviewed organizational documents

<table>
<thead>
<tr>
<th>Collected document</th>
<th>Content</th>
<th>Published</th>
</tr>
</thead>
<tbody>
<tr>
<td>The IKEA Way on Purchasing Products, Materials, and</td>
<td>Code of conduct</td>
<td>2016-04-29</td>
</tr>
<tr>
<td>Services (IWAY)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INGKA IKEA Sustainability Report FY17</td>
<td>Info on Circular Economy and Waste</td>
<td>March 2018</td>
</tr>
<tr>
<td>People &amp; Planet Positive</td>
<td>IKEA Group Sustainability Strategy for 2020</td>
<td>October 2012; updated June 2014</td>
</tr>
<tr>
<td>New People &amp; Planet Positive</td>
<td>Revised Sustainability Strategy</td>
<td>June 2018</td>
</tr>
<tr>
<td>Video, Michael La Cour (Managing Director of IKEA Food Services AB)</td>
<td>Talk on “A World of Food in Change” at London School of Economics and Political Science</td>
<td>2018-02-02</td>
</tr>
</tbody>
</table>
4 Analysis

The collected empirical data is presented in this chapter. First the general notion on sustainability is gathered in a compressed form from the interviewees. Afterwards the analysis is arranged in themes which provide structure and contain quotes from the primary data collection as well as content from various secondary data. The structure of the assessment of primary data is presented in a theme matrix. After each theme analysis the findings are summarized. Therewith the IKEA story regarding sustainability and collaboration with different idea providers is told and challenges are uncovered.

4.1 Introduction of the interviewees and their notion of sustainability

While all interviews are executed in a way that puts the role as business owner or employee in the center of all follow up questions, one cannot deny the individual behind and previous experience or knowledge that informs the notion and the way they work and perceive things. This also aligns with the conceptual model from Schaper (2010, p. 65) where the green entrepreneur, meaning the individual, is illustrated as the gatekeeper between external green structural influences and the green business.

The interviews have been divided into two groups. The group “internal” combines all data that was provided by participants that work on corporate level with sustainability on the agenda but not with environmental sustainability in all actions from the beginning. The group “external” combines all data collected from interview partner whose actions are determined by environmental sustainability from the beginning due to the nature of their working environment.

The following table (Table 4) gives an overview of the people interviewed for the study.
Table 4: List of Participants, semi-structured interviews and their sustainability notion

<table>
<thead>
<tr>
<th>Name</th>
<th>About/ Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erik</td>
<td>Works with idea creation and execution with a background in hospitality and food preparation</td>
</tr>
<tr>
<td><strong>Motivation/Background</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Erik claims that he always had a passion for food and was eventually hired for one project only but realized through researching on trends and problems</td>
</tr>
<tr>
<td></td>
<td>“(...) that there is a need for change and I would very much like to be a part of that, that I think that's my motivation”.</td>
</tr>
<tr>
<td>Eva</td>
<td>Works with processes and has a background in business administration</td>
</tr>
<tr>
<td><strong>Motivation/ Background</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eva sees being part of something that has a big positive impact as driver for her team and her.</td>
</tr>
<tr>
<td></td>
<td>“So it's also nice to see like there is a big interest across the team for this topic, so there is a lot of research coming in that just people find out and also how it motivates both our community but also like the team in here”.</td>
</tr>
<tr>
<td>Elias</td>
<td>Works with idea creation and execution with a background in urban planning</td>
</tr>
<tr>
<td><strong>Motivation/ Background</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being asked for his motivation for his job and sustainability in general Elias mentions that.</td>
</tr>
<tr>
<td></td>
<td>“I'm just curious as a person and I also like food and I like nature and I like plants and then now I'm here and the more you dive into this whole food, the more you also realize exciting projects from around and also some of the challenges”.</td>
</tr>
<tr>
<td><strong>Evan</strong></td>
<td>Works with innovation and collaboration between industries with a background in academia; participated in the IKEA boot camp</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| **Motivation/Background** | Talking about sustainability Evan says  
“So it's something that I don't think that we have already gotten to by means of making some kind of a balance between the way we want to see the world and the way we actually act upon. So we're still on the way and I don't know if we'll ever get there but this is something that is really kind of central lines for me in looking at things.” |
| **Eskild** | Owner of ecopreneurial startup with a strong business background and experience of running several companies, participated in the IKEA boot camp |
| **Motivation/Background** | Eskild reflecting on talking about sustainability  
“Big companies do CSR because they need to balance the mess they are doing, our product is very sustainable we don’t need these efforts” |
| **Ingrid** | Works with the supplier code of conduct at the case company |
| **Motivation/Background** |  |
“I'm close with the different sustainability metrics but also the different business so we kind of have a very much a kind of a I guess a global view and overview of different things”

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Motivation/ Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isaak</td>
<td>Started working in retail and now works with policies and implementation of sustainability at the case company.</td>
<td>Isaak followed a different path to sustainability reflecting on his own “From a personal point of view, at the very beginning of my career I was in business and I had no had no connection to social environmental things. I studied business in university and that you could actually be in business but also have positive change and impact society kind of really fascinated me. My value for sustainability probably was heavily influenced by IKEA. The discovery of things and then as I went back to school I became educated”</td>
</tr>
<tr>
<td>Ida</td>
<td>Works in sustainability and health at the food division of the case company.</td>
<td>“I've been there building a strategy that we have with the food business which is trying to really make this connection between health and sustainability”</td>
</tr>
<tr>
<td>Iben</td>
<td>Works with fostering social entrepreneurship at the case company.</td>
<td>Iben says that “sustainability influences to all we do, event we sometimes don’t notice”</td>
</tr>
<tr>
<td>Ingemar</td>
<td>Had his own company before starting to work at the case company, now he works within business development</td>
<td></td>
</tr>
</tbody>
</table>
Motivation/ Background

“I started you know way back when as an entrepreneur started two companies got IKEA as a customer and realized that IKEA was more fun than my own company. So I sold my companies and started at IKEA”

4.2 Thematic Analysis

The following section introduces and analyses areas resulting from the coding of the data. To understand how empirical findings and theory are being assessed the table below (Table 5) gives an overview. While the analysis is clustered into themes (first column) each theme is aligned with the theoretical framework (second column) that informs the theme. The third column provides keywords that refer to both the content of the empirical data used and the content of theory in that very section of the analysis. The analysis tries to follow its clusters but in some cases the theory is used also in other parts than mentioned in the table, reason being the collected, qualitative data that was not stirred in only one direction and therewith sometimes interview partner touch several parts in one. Other parts not explicitly mentioned in the table still have importance but are applied more fluent and not in particular to one part. In addition, each section includes example quotes and is summarized in the end.

Table 5: Structure of theoretical framework applied in analysis

<table>
<thead>
<tr>
<th></th>
<th>Analysis</th>
<th>Theoretical framework</th>
<th>keywords</th>
</tr>
</thead>
</table>
| 4 | Green Business Values and view on waste | 2.1 From Entrepreneurship to Ecopreneurship | – Shared Values  
– Corporate Culture  
– Linear to Circular  
– Waste = Resource  
– Balance Environment and Economy  
– Drive Change |
|   |   | 2.2 From Innovation to Eco-Innovation |   |
4.2.1 Green Business Values and view on waste
Sustainability is a topic that interconnects the case company and interview partners. Although perception and especially individual perspectives differ, one can see that the corporate culture is widely influenced by the topic and green business values are ranked high. The way it is expressed and approached is not the same for small enterprises and the case company but certain traits can be found in both.

Democratic Design Principles and corporate strategies
For IKEA and their representatives’ sustainability is part of the democratic design principles which influence all major processes and therefore a balance between all five principles (form, function, low price, quality, sustainability) is seen. Just as Ingrid, who works with the supplier code of conduct mentions about sustainability that “it is
This interconnection and importance of all parts alike is also mentioned by Isaak who says that

“We have our democratic design, where sustainability is part of that and it gets referred to all the time.”

He reflects further that it is impossible to pull one out from the five which requires special attention on the education of the people working on projects, especially since the company is operating globally. The necessity of taking sustainability into consideration is also mentioned by Ingemar referring to the role of sustainability in the democratic design principles

“(…) it is one of the five criteria sustainability. So not something that you can give away.”

According to Ingemar who works with collaboration and entrepreneurship sustainability even needs to be the baseline. He sees it as essential that short-term economic obstacles don’t hinder long-term competitiveness. In addition, he is also aware that it requires a big mind shift from the customers but sees the potential of influencing and supporting through making sustainable solutions available to the many people. This aligns with the green consumer being one of the influencing factors on green entrepreneurs as illustrated by Schaper (2010). Further also the importance of eco-innovation illustrated by the European Commission (2017) as central theme of future production processes and consumption models aligns with the desire to have sustainability as a baseline for all further economic interactions.

One can see that the corporate given structure is present in the minds of the interview partner representing the internal part of the case. Though as it is mentioned by the interviewees, it still costs effort to include and value all of them in an equal way, especially when looking at long term investment and not short time success.

The view to act in way that assures a successful future in order to drive change is also reflected by Ingrid

“It needs to make business sense, because I mean at the end of the day if we want to make a significant impact it’s all about us still being here. So if we need to do it
together with our business, together with the business that we are driving. It can't be something on the side!”

One can see this effort and thinking also by corporate actions from the case company. IKEA has made an effort to not only implement sustainability in their processes but also joined forces with various industries and organizations to drive change. This can be seen through various organizational documents such as the ‘People & Planet Positive’ (PPP) report (Inter IKEA Systems B.V., 2018) which summarizes the organizations sustainability strategy. On corporate strategy level the ‘food is precious’ initiative is also worth mentioning, as it is especially a driver for the food department of the case company.

As Michael La Cour, Managing Director of IKEA Food AB in a talk at the London School of Economic (La Cour, 2018) shared, the company acknowledges the need for change and has set five rules in place to drive it.

(...) everybody, even if you have 660 million customers, wants to feel that you personally are being served. So this for sure changes everything that we do this puts a pressure on how we meet customers, it puts a pressure on our range and we actually have to re innovate and reinvent basically most things that we do and the changes are significant and our rules for change are the following five. We have to set short-term actionable goals, this is not a change that will happen three four or five years it's happening right now. We have to make friends in tech, we have to make friends with chefs, entrepreneurs that can help us, that can actually help us tap into new ways of thinking, new ideas. It's with help from friends in tech that we actually managed to bring our food waste down in the stores simple tech very easy to use and and alike so in connection with our normal way of working we have to have a way of working with all this and there's an enormous amount of attention and money being thrown in with venture capital into the food business in these years. We have to engage not least with our co-workers, suppliers and we have to change the mindsets from within we firmly believe in the transformational power of our co-workers. We've seen it with the food waste when they start believing in it, it really changes and sometime is quite simple [...] We firmly believe that we have a
big job to do with our approximately 200,000 co-workers. Democratic design as I showed it earlier we believe that is a very good framework for all our product development and we will not be afraid of tackling global challenges head-on because there is simply no other way with the vision we have of creating a better everyday life for the many.”

Communication and Inspiration

Iben thinks it is important for IKEA to communicate more about all the sustainable initiatives they have done over the years

“(…)not only for our own brand positioning but also to get sort of what I would say that joint forces with similar, likeminded organizations in order to address big challenges.”

Putting the actual activities aside Iben identifies a problem IKEA is facing when it comes to sustainability

“(…)IKEA has been working very responsible for years, what we have lacked, we lack in communication externally what we are doing, so in sharing externally that we should definitely improve because we do a lot of initiatives I would say, lot of actions has been taken on those business and sustainability which delivers to really good societal impact.”

The issue with communication all the activities is also mentioned by Ingemar, who however has a slightly different view on it. Talking about acting sustainable he says

“(…) we do it because it is part of who we are and I think that is the strength, but the weakness in our work of sustainability is that we never use it as, how I should say, a competitive advantage. I think in the long run we will win by that but of course many people or companies or competitors the scream about how fantastic they are.”

Eva reflects on the potential of her company to influence industries by using their passion to drive change through communication. Therewith the impact of her company’s actions
is in her opinion more “from a storytelling perspective” and states about one of her recent projects

“(…) showing that there is such a huge interest and then at least we're definitely helping to spread the good word”.

A drive for change is also according to Isaak that food is a big part of who they are and but he raises further questions reflecting on

“(…) the changing societies and all that to the circular economy and how are we going to use resources in an efficient, effective way and innovate around materials and that. Then you know how do you take some of these things and make big impacts with them from a brand point of view but also to move industries. I think as well and that's really a part of a lot of our thoughts, not just move pieces of the puzzle that's you know might affect us. Incremental change doesn't really work. You have to think of this, where our new strategy is to 2030 so you can actually look at industries as a whole and say we need to move this whole industry globally not just our one-percent of it, if we're going to change it. That’s kind of that, overall.”

**Hard and Soft Structural Influences**

One can see the impact environmental pressure groups and regulators, defined by Schaper (2010) as hard structural influences on green entrepreneurship, have on the case company. Referring to the UN Sustainable Development Goals in the PPP the case company states

“(…) they guide us as we develop our business, set ambitions and engage with our partner” (Inter IKEA Systems B.V., 2018)

Iben, who works with entrepreneurship at the case company defines the SDGs as deliverables which they pay attention to but rather see it as basic requirement which need to be addressed anyways in the sense of being aware what happens externally

“we obey to listen what is happening externally as well to be seen and what is needed to be more responsible brand.”

As Eskild, states that they haven’t encountered the SDGs being of relevance in their work.
“We are working in a very new segment and breakthrough segment, so we are not working inside everyday regulations.”

Isaak claims that

“Government is usually kind of the last to move. As if, you know if you're waiting for legislation to drive it that will be kind of ten years later than you should have reacted. So hopefully we are ahead of the curve on most of those things.”

As Ingrid emphasizes besides scaling ideas and innovations up

“[...] other challenges are legislations. They are working against the circularity when you say waste needs to be handled in that very hands on things, you know facing every day.”

Elias claims that he has a “very hard time finding out what are the rules, regards of cleaning and hygiene” for one of the idea projects he is running and realized lately that since the idea is so new there are hardly any regulations for now as the general public needs to catch up on it first to make it worth creating a law for it. Elias mentions further that

“I think they are about to change the laws but right now it's sort of in the grey zone because it's something new and it's not like having a pig farm with a million pigs”.

The potential of having a big corporation behind something is as Ingrid says that “many times it is us than asking governments, can you change this” because their speed is faster and they see the need to make us of their impact.

About this development having an impact on his work Even says

“in regards of our work here I wouldn’t say that those influence anything but we look at the UN climate goals. I think that they are quite powerful. Maybe it's just because I'm more aware of it but I think that more and more people are like using them. Sometimes maybe for green washing to say yeah, we use this but I think a lot of the times it's a genuine wish to take one of them or two of them and try to incorporate them in maybe a food festival or fashion or whatever and I think that's
very positive. That's not rules, it's more like yeah we wish it could be like this, and it is up to you to do it.”

Ida agrees that government regulations have a big role to play

“(…) not that long ago many countries didn't really allow that redistribution of surplus food and now this is increasingly becoming possible.”

She claims further that having incentives in place enables building the right infrastructure for food waste meaning anaerobic digestion or composting. Currently the lack of this particular infrastructure is a challenge in many places that needs the right policy incentives and encouragement to drive better. Especially countries in the European Union are supportive and the signs therewith seem positive according to Ida. Around the world however not having a strong policy environment is a constant and big inhibitor to all initiatives. Evan also mentions this by reflecting that although it has become kind of fashionable and even demanded from consumer side, he is facing challenges in setting up his sustainable firm without receiving support from governmental organizations. The trouble of funding is also addressed by Carrillo-Hermosilla et al. (2009) who mention that especially eco-innovations require significant amount of money by often having a short payback time.

Eskild who is undertaking ecopreneurial operations with his own company mentions that the FAO is benefitting his company’s goals as they discuss the topic and do research on it and therewith make it more relevant to the public too.

Further Isaak sees IKEAs efforts regarding sustainability affected by hard and soft structural influences

“as much as we say it's integrated, you're never fully, you're always kind of pushing agendas and understanding how different things affect other parts and educating people on it.”

The more practical approach
One can see more practical answers on the question regarding sustainability from interviewees that work not directly at the case company but collaborate with them.

Eva for example who works with business management in one of the collaboration partners claims that

“We also thought about the materials we use quite a lot like when whenever use plastic, making sure it's biodegradable and reusing some of the plastic that we have. So we try to create less waste when it comes to what we need to use but also what is left over from others.”

Also Erik who works with idea creation in one of the external partner organization answered the question regarding sustainability within the company in a way that shows the different approaches one can have regarding sustainability

“Next week we are going to change our whole cleaning team and they have a green profile so we are going to get better on that side as well”.

Elias, who has a background in urban planning thinks that applying sustainability on company level is “…like an ongoing process, all the time. I mean there won’t be a time where everything is perfect”. Further looking he thinks “that's also a nice way of looking, because that is sort of also inspiring”. In a way this illustrates his nature and willingness to keep going.

**Business Opportunity**

While being asked about the balancing of business and sustainability Ida states that

“We should try and drive both angles, you know move towards a more sustainable production but also move towards more sustainable diets and as ensure that in the process that there are healthy diets as well.”

Further Isaaks thinks

“(…) from a challenge point of view it's more, I mean, there's so many things that's evolving so quickly from animal welfare, to you know all circular and all that. But
I think we see it now less of from a crisis point of view, more from a business opportunity point of view.

Ida also reflects on the case company and its will to keep going

“We are all kind of primed towards trying to address that really, really big issues like climate change, biodiversity, human rights in our supply and along our value chain and also food waste comes into that. Food waste plays a big role.”

**Food waste**

The first version of the PPP (released in 2012) has been revised in 2014 and received an update in May 2018. Referring to their company values the first report addresses waste as general topic within sustainability and stresses its economic importance.

“We want to economise with resources. We do not want to be wasteful and we always strive to make more from less. This is part of core IKEA values. It goes back to our roots in the rocky landscape of Småland in Southern Sweden where people had to make the most out of the scarce resources at their disposal. This continues to influence us as we develop our range, and distribution and sales solutions.” (Inter IKEA Systems B.V., 2012)

Talking about sustainability is due to recent trends also often connected to talk about waste, reason being more and more circularity thinking from various sides. In the first version of the PPP report food waste produced by IKEA Restaurants, Bistros and Swedish Food Markets is not addressed but the focus is more on influencing the life at home of the customers and using waste as resource in general (Inter IKEA Systems B.V., 2012).

In the revised version of the PPP sustainability strategy waste is not any longer seen just as contributing factor but included in one of the three main challenges identified for the company until the year 2030: “Unsustainable consumption”. Seeking to answer the question “How can we continue to grow and enable more people to live better everyday lives within the limits of the planet?” (Inter IKEA Systems B.V., 2018)
Being asked about food waste and the individuals’ perspective on it, one could see two different approaches. While some interview partners reflect on waste as a resource, others have a more practical, close to action approach.

Elias has a quite practical and close to action approach on food waste. Instead of thinking about corporate actions the first reaction is looking at their own behaviour inside their daily office lunch routine. In this very location, food waste from lunch is sorted and efforts are made to reduce throwing out food in general. An issue mentioned here is though the catering for bigger events taking place at the location which lead to increased accumulation of food waste. This particular challenge is addressed by providing the co-workers with lunchboxes filled with leftover food that can be grabbed from the office fridge after an event.

Erik, who has experience from hospitality and catering makes another close to action approach by talking about using the coffee grounds accumulated in the office space in projects providing nutrient for soil of growing projects as well as ingredient for crispy treats. As Erik states however

“We are not a full functioning producer here, so what we look at is basically what we get from our side and how we sort that out”

which also reflects on the company size as an impacting factor on the process of innovation.

Waste is viewed by several Interview partners rather as a resource than a source at the end of the value chain. Just as for example Isaak views it

“(…) you might need to look at everything as a resource and it's just not in the right form yet and then of course reducing things to make it more efficient and effective in the processes. It's the mind shift. We want to reduce food waste of course but then if there is food there always will be waste. I mean a banana will always have a peel that you're probably not going to eat, but you can use that peel for other things. Well, this is a resource what can I do with that?”
Further Ingrid who works with the supplier code of conduct at the case company declares it not as waste but as secondary raw material. For her it is the whole approach that need to be taken into consideration

“(…) How do you design, how you use, do they flow, circularity includes no waste, waste is one of the parts”

More depth on the food waste topic was given by Ida who works with it at IKEA. The following give more insight into the case company’s perspective.

Ida describes food waste as having a strong business case and underlines the positive result of working to sort out the issue. In fact activities to reduce the matter have performed even better than expected.

Ida emphasizes further

“So food waste is great because it really you know it's about combining resources in new ways. You know finding a way to create or reduce in this case. The cost of food waste will be like the impact of food waste and that is I guess quite, you know a good resource that you're saving.

Combining resources in new ways is also how initial definitions of innovation are made (Schumpeter, 1983). Further it creates an incentive to reduce the influence of financial concerns that are mentioned by Carrillo-Hermosilla et al. (2009) which especially have an impact on eco-innovation and companies that have less liquidity.

Ida stresses the importance of being able to measure

“we have you know a very good amount of information on exactly what products are being wasted and what exact cost is you know that we are able to save as well.”

Even however mentions that measuring is something that is despite being desirable not so easy for him and his company as it comes at a cost. Once things are in place the benefit is striking though.

Ida thinks there are two things to consider when it comes to using food waste
“You have to start thinking about what do you really want your food waste to be used for. Is it going into body scrap as a good use of food waste or could that be better be put to a higher use or any use. You know the jury is out, I don’t have an answer on that but if you think about the waste hierarchy you know trying to repurpose food so the nutrients are going back into the food chain probably would come higher than creating a body scrub but you know these are just theoretical debates I suppose. But yeah we want to see on the long, big [inaudible] the hierarchy but you mean first of all we want to [inaudible 25: 38] reuse waste as that is the case in food waste. Then we recycle it in some way which could be sending it to anaerobic digestion which also creates a compost or it could be just creating the compost. That would be I guess our preferences.”

Coming back to a more traditional business focused approach Ida adds another thought by saying

“what creates the real energy and momentum and production is people seeing how much money they are saving each week in the kitchen. So last week you saved yourself about 3000 dollars, you know that becomes a huge driver for change. You can see the benefits just immediately [...] food waste is definitely primarily be driven by the bottom line.”

4.2.1.1 Summary on Green Business Values and view on waste
While opinions on sustainability show different approaches, all interviews see the importance of actively taking actions. Sustainability is addressed with strategy and corporate thinking in the case company e.g. the interviewees follow the democratic design principles which include sustainability. Green structural influences seem to affect the allies in different ways e.g. regulations are not existing for the innovative nature of their product. One can see the representatives from external, small enterprises valuing sustainability in a more practical way and also view waste less constructed. Generally, waste was mentioned by all of the participants as resource rather than an issue. One respondent even emphasized that waste provides actually a very good business case because of its efficiency and stresses the importance of measuring in order to be aware of the savings.
4.2.2 The case of different sizes
This section addresses the question of company size as an impacting factor for sustainable entrepreneurship, looking to find an answer if it rather happens in small enterprises or in large ones. An additional analysis perspective is added through the ‘Greening Goliaths versus emerging Davids’ thinking explained by Hockerts and Wüstenhagen (2010).

Elias thinks that it is harder for a very big company due to a lack of flexibility, explaining it by using an analogy “I mean if you're in a small boat it's much easier to just turn it around.”

Evan has a similar view on that

“(…) it's easier at the beginning for small companies and startups and entrepreneurs but it is becoming more and more difficult as you grow up. So that's one thing for the larger companies it's easier to impose changes and they have a much wider kind of effect but it is costing a lot of money.”

As for Erik it is important to mention that “a big company has a giant reach and even a small change in a company like IKEA makes a big difference”.

Ingemar mentions the chances small companies have in his opinion in contrast to large corporations and also includes the question of time in his statement.

“You do become so huge but that to me that's just roll-up. Start small, start to learn, develop, scale up. Learn, develop, scale up. I think we than have, where a small company has the benefit of doing it fast we have the benefit of doing it big with impact.”

This aligns with what theory says about the complexity of processes and the individual needs of social networks at different stages in the idea generation process (Perry-Smith and Mannucci, 2017). The interplay of both with each other is seen as positive for both parts by Iben who says
“From the very beginning it is a win-win [...] because when you grow so big is the other aspect that of course the demands are not decreasing but the processes take over. you know your own ability to re-engineer yourself so I would say that these small partners also help us to rethink into how do we make our supply chain more robust [...] create space in our supply chain to work with them to create space period then how do we look into our processes from externally and then to simplify as well.

4.2.2.1 Summary the case of different sizes
Different sizes are seen not as a challenge but more as the chance to complement each other. It seems as there is also no general truth on whether small or big sized companies have it harder to drive change. One could say learning from the interviewees that it depends on the situation and context.

4.2.3 Challenge of eco-innovation impact
One of the challenge identified as such is the introduction of discontinuity into a circular flow (Schumpeter, 1983) and its impact on the evolution of an industry (Parker, 2005). Eco-innovation is driven by individuals (Carrillo-Hermosilla et al., 2009) and a green business is what an individual makes out of it influenced by its personal experience and knowledge as well as external influences (Schaper, 2010). The respondents view on innovation and environmental innovation in particular is elaborated in the following.

Isaak refers to drive and push towards implementing sustainability is coming mostly from “(...)
internal forms of innovation. Unfortunately, probably not as much as we would like from consumers. Consumers are driven usually by something else, highlighted from media but it can come quite often the early. Warning things come from NGO community, as they're usually that kind of thinking ahead and see connections and all that, which is why we try to be very connected with them and partner and have good relationships so we can pick those things up”.

This shows at the same time the wish of having the green consumer more involved in the process of idea creation. It further links to the green structural influences that also include the green consumer as one of the influential factors on the green business (Schaper, 2010).
Elias claims that operating on the “inspirational level” is something that helps to engage with consumers more freely, as it is

“(…) where everything starts, and the more we can get people to talk about it, even though they think that okay that insects are super gross or something, the more you can also start the debate and make more people reflect on”

Isaak claims that using civil society and NGOs

“(…) as kind of the early warning signs and early indicators of what you should be reacting to. But not from a defensive point of view but more an opportunity”.

Also Michael La Cour (La Cour, 2018) talks about the necessity of including people into the process of sustainable innovation, while at the same time mentioning a form of idea sourcing network they held.

“We’ve also had a boot camp where we had tests into alternative proteins actually, banana flies as an alternative protein. Very exciting, so we don’t know if the crispy or the meatball looks like this next time you visit IKEA I think there’s a little, little ways to go. Still our learning was that it’s still in the early days when it comes to alternative proteins but there’s no doubt that even we as the meatball connoisseurs, we have to challenge how that future will look and we have also come to the very clear understanding that this is not something that we will do alone we know something that we will do alone we know we have to take the next steps with the many and for the many the way to do it is to frame the challenges that we are facing in the food world as opportunities and using that as fuel for innovation and discovery how we can move forward.”

This aim for collaboration is also reflected by Iben, who says that

“You have to listen to those external factors because you can’t work in an asylum if you want to make a movement and the movements happen really when you join forces externally.”
On corporate level one can therefore see the awareness of importance of working together and also the increased effort to set up collaborations and networks to have an impact.

Looking at the small enterprise side, although they are very keen on collaboration they need to invest time in being selective, one could see this demand therefore as sort of challenge. Just as Eva claims, people

“have amazing projects that they're working on and sometimes we can be drawn towards ‘ohh, let's do something together’ but always making sure that it fits into the roadmap that we're going and that we can like find potentially a product that is interesting for both parties.”

Elias claims further that

“once we found them and the project is super concrete, it is easy”. He elaborates further that the challenge lies more in the popularity of his working place as partner since “a lot of people find us quite interesting, so we also get approached by a lot of people. So I mean, so that's the only challenge I can see that it's sometimes time-consuming to sort of scan and say ok there ‘yeah’, ‘maybe’ or ‘no’.”

Ingrid who works with the supplier code of conduct at the case company says that all people working directly with sustainability at the company

“are extremely self-critical. Sometimes I say we are too critical. We keep complaining about all the things that are not done and never take the time to celebrate what we have done. I think that also contributes to pushing the agenda.”

Isaak also reflects on constantly questioning in his working day “how we impact people but then also how you know do we do this in a Swedish company?”. As Ingrid mentions further, while revising the code of conduct they are

“(…) really trying to challenge to take it to the next step. How can we be meaningful and actually create impact? It's also expected from our own colleagues just looking at the internal”
This internal drive is also reflected on by Isaak who says

“most of the innovative ideas and thoughts and things come from organically within the specialist areas and even from stores or from wherever. And then hopefully we have kind of technical experts in different areas that bring them as well”.

Having this in mind a thought from Evan is interesting, as he sees the importance of introducing fresh ideas into the process and not only set up an innovation-department that is supposed to take care of it.

“(...) it should not be the big, old guys that take the decisions but fresh ideas from driven, young people”.

Isaak introduces another perspective into that by saying that the management board

“gladly push the agenda, are we going far enough, are we going fast enough? But how to do it is not from them”.

4.2.3.1 Summary on challenges of eco-innovation impact

The drive that is needed especially in Eco-Innovations is supported by a corporate culture that is open for change and acts proactive (Carrillo-Hermosilla et al., 2009). The interviews have diverse opinion on where ideas that create impact can come from talking both about incentives from higher management and enthusiastic young people. Depending on the moment of time certain setups benefit eco-innovation more and leverage it but it is a constantly changing environment that also ask for certain ideas and requires adaptation accordingly.

4.2.4 Challenge of process mobility

Flexibility and stability are contrasting themes that can influence the mobility of a process and add complexity to it. Seeing the interplay of small enterprises and a global operating organization it seems as if these two themes can replace the two counterparts. The following seeks to analyse the opinion of the respondents regarding this thought and explores the complexity of processes for sustainability driven projects.
Various sources i.e. The European Commission (2017) see the potential of eco-innovation to generate growth. In particular small enterprises in fact are seen to benefit from their process agility. This is mentioned by various interview partners too. Especially those internally involved see the potential to refresh existing processes and make them leaner. Further one need to consider that as Christensen (2013) mention a lack of new, small market entrants might slow innovation in large firms down as well. Interview partners from both groups are aware of the dependency and are willing to invest to keep networks in good shape. Eskild one of the ecopreneurs among the interview partners mentions that he is participating in various networking possibilities to improve his company’s business contacts as this is especially at an early stage sort of a currency for small entrepreneurs. Though he sees a certain need for larger companies to become more approachable.

*The Managing Director of IKEA Food AB gives an example of collaboration that leverages their own process* (La Cour, 2018)

“One example of engaging with people, one from the outside is this space 10. It's a future living lab that we have in Copenhagen. It's originally a rebel agency then they have sort of free hands to work with all kinds of things they can embrace changes in society faster, they can ideate, they can test and try things that are a little crazier than we can do in the bigger machine and failure here is absolutely ok. It's actually expected that we fail a whole lot of things otherwise we're probably not daring enough.”

Iben is also reflecting on adding external parties to the company processes

“(…) because that brings in also agility to us because sometimes when you are working those big suppliers and big processes which is our mainstream it is really difficult to be agile. You know? So, so to create space for the, now I mean Ikea has not only started this working with the boot camp and the other initiatives. How do we create space for this where the agility is the way forward you have to be agile?”

**Internal versus external**
The question on whether it is easier to work on a project within their own company or in collaboration with externals shows various perspectives or as one can say challenges or approaches. While talking about a social factor that influences the processes within the case company Ingrid says she is impressed by the informal networks within IKEA and sees it as a contributing factor to tear down complexity of processes. “Once you know somebody...”

Eva stresses the importance of not seeing collaboration partners as external parties and in fact states that projects she is involved with always try creating at least for the time of the project a togetherness that includes all and therewith makes all internals. This of course requires some work from all involved but it is according to Eva only beneficial to do so for the outcome as well as the working flow itself.

4.2.4.1 Summary on challenges of process mobility
A topic that has been widely discussed by all interview partners was the complexity of the process from initial contact to setting up a working relationship. One can see that networks play in important role in the way processes are established and how flexible or stable they are. Further the representatives from the case company reflected on the informal internal networks and how beneficial they are for the process flow. These could however include that on the flipside externals might be overwhelmed with it and have less chance to engage.

4.2.5 Challenge of scaling idea
Whether a sustainability driven project or eco-innovation is successful is often determined by the possibility to scale the idea itself. Hence the capability to scale up or scale down is something that can lead to challenges. In addition it is as Parker (2005) mentions in fact sometimes less valuable to constantly create new knowledge and ideas. One should rather explore and exploit the existing further.

Eva mentions that for certain projects it is “important to look from both sides” giving value to also “look from the grassroots movements” when implementing on big scale.
Valuing small scale application Elias, mentions the practical reason for small companies like his to shift from aiming to solve big problems.

“we don't have the ability to bring anything new and giant, because that's some other people's job that's not ours”

also meaning not having the capacity to set up a full new company for every idea they are creating.

Eva, who sees it from a small-scale perspective, talks about the potential of in fact being able to create for the small, every day and also shares the process that lead her to this thought.

“In the beginning we were thinking a lot about how that could be implemented in big scale and then we've now changed the focus a bit, also to just make sure we also look on the other side. Like if you just start really small, how could like an office, what could an office do to change the food production system for the better? How could you like empower people with these small things they can change in their everyday life? Waste was definitely like a whole topic of its own in that exploration. Whether it was to just make sure that it was making it easier for people to bring home leftover food or using coffee ground”.

Additional reason for shifting from big to small is for Elias that

“I think that it's important to have the shift, because I realized more and more that it's about to make people want to change habits and also empower them to make stuff and that it is possible”.

He mentions further, talking about a particular project to grow plants without soil in nutrient rich water (hydroponic growing) that

“in the beginning it was very like from the bold. Like a big view on how could we make hydroponics sort of 90 percent less water and so on” but this evolved over the process of the project “now it's more that okay we also need to like grow
microgreens and it's a great produce and full of nutrients and vitamins and stuff but if people don't ask for it no one will make it”.

Another aspect that seen as challenging by Iben is when trying to lift small initiatives up to a working level that that can be approached globally

“(…) that they don't want to become a big factory, because that is the reason, their soul is the social reason why they are there. So you cannot uproot them and put them in a place where, you know they could have easy access to the competence and infrastructure.”

Further Iben mentions that from experience small enterprises struggle to receive enough long-term, human capital which

“(…) is of course the challenge to find more in terms of competence, to have a regular inflow of competence also because coming to be seen of a sort of you know deep place to work. It is challenging.”

This is sort of confirmed by Eskild when he says being asked about challenges in his company.

“Now, at the moment it is scaling up, [the product] is a highly sustainable product itself but we need to produce and have means to produce.”

As another ongoing challenge Iben sees funding, since she observed that

“(…) as they are scaling up their credit limit with the banks also doesn’t go in the same pace because banks need sort of guarantee and all those.

4.2.5.1 Summary on challenges of scale
While authors like Schumpeter (1983) talk about scaling up as something desirable and even needed in order to drive change and have an impact, the views of the interviewees were not all aligned to that. In the accounts from the interviewees one can see the interdependency of both and the importance to consider that even though scaling up is important to drive and change in the long run ideas are more successful when they can be scaled down onto consumer level again. This in fact seems to cause more troubles on the
large scale meaning that even big ideas that might be possible to apply onto a global level need to be approachable enough for the individual user. This aim to scale down and be approachable at the small enterprises is influenced by their limited access to resources whereby they are somehow forced into making new combinations of the existing and therewith innovation but comes also from them being close to the user and see the importance for it directly from there.

Further the barriers to eco-innovation (Carrillo-Hermosilla et al., 2009) are sort of touched as challenges when it comes to scaling up a business idea and as mentioned by one interviewee financial resources or human resources can have a substantial influence on the possibility of scaling up.
5 Discussion

This chapter seeks to elaborate on the findings supported by previously presented theory and concepts. First the topic of challenges is broadly discussed with regards to the interplay between different size stakeholders. Thereafter the discoveries are critically assessed regarding their influence on the eco-innovation process.

It would be too simple to only talk about challenges and ignore all factors that inform the challenges or decide if a challenge becomes a challenge, a problem or maybe a chance to change. Therewith this thesis tries to include more factors along the process of interaction. Just like Mascia et al. (2015) reflect on the uncertainty and complexity of challenges that are also always influenced by the individual and its experience.

This thesis has a sustainable frame that not only influenced the choice of theory but also the interview partners where selected accordingly. One can therewith say that with a different frame opinions and challenges would eventually have been channelled in a different way, with e.g. more focus on financial challenges or maybe consumer related. This was however not the case.

There are three challenge areas derived from a combination of theory and collected qualitative data which are illustrated in Figure 7 to receive a better understanding of the findings.
One can first start with the importance of mind set and shared values between collaboration partners, which finds its place in the centre of the illustration. Special attention is paid on the interplay between two partners of different size. The ‘David’ is depicted in a more settle green which refers to the core of these type of organization being often more influenced by sustainability (Hockerts and Wüstenhagen, 2010). The ‘Greening Goliath’ as literature refers to bigger companies whose agenda is directed towards sustainability in this case is visualized in a lighter green but bigger in size. Important to mention is that both ‘David and Goliath’ are connected and not in two individual boxes. This shows the necessity of having shared values in order to succeed in collaboration with each other. A mechanism which was also mentioned by an interview partner. In her company they try not to see the collaborating part as an external actor but becoming at least for the time of the project a kind of closed, internal partner. Therewith they eliminate the external-internal gap in her opinion since it includes shared influence and shared responsibilities wherefore one can see a stronger commitment from all involved.
If one takes a closer look on the greenish box it is visible that the frame is blurred. This refers to the soft and hard structure influences (Schaper, 2010) that have an impact on the green business such as environmental pressure groups, regulators, green consumers and the individual that operates on the collaboration for the eco-innovation.

In addition the faded frame also breaks the circles of the challenges that surround the actors, which one could see as reference to the natural complexity of process and the need for disruption in circular flows to achieve innovation (Schumpeter, 1983). Furthermore a circle as a closed symbol is not reflecting the nature of challenges which occur in different intensity and different importance depending on context. This also reflects on the conceptual model proposed by Jashapara in Verburg and Hoving (2007) where discontinuity is added to the process of combining knowledge creation and innovation in order to show the complexity of the process.

Having mentioned that the circle is not the correct term in combination with challenges it is further referred to as disrupted circles. Each of the three disrupted circles, or six half circles show respectively one direction. Challenges are viewed either from David to Goliath or from Goliath to David.

The circles are divided into three themes but of course they also inform each other so for example the possibility to scale up or scale down has an influence on how big of an impact one can have, further the possibility to scale is in fact also a matter of having control over the overall process, be it through flexibility or stability.

5.1 Shared sustainable values or share sustainable values
Talking about sharing the same or similar values is especially crucial for sustainability driven projects. Small entrepreneurs that drive their business to foster eco-innovation are exceptionally protective and selective in their collaboration partners. It is not as if they are willing to render their green values in order to make collaboration with a potential big partner work. Something that appeared more from the side of the small enterprise is the
challenge of being already selective before the collaboration starts. IKEA on the other hand is eager to find new collaborations, engages in various forms of idea networks and eventually also has the resources to be more flexible and daring. Small enterprises on the other hand need to be resourceful and are therewith in some cases hesitant. Just like one external interviewees mentioned many people want to work with them due to their unique product but they don’t have the resources to collaborate with all. Hence they are very selective, once the selection is made however there are barely challenges in working together as mentioned by interview partners.

**Shared values – a challenge prior to collaboration start**
One could therewith say, that challenges within collaboration are no just starting when the actual project work starts but start way earlier, especially for small entrepreneurs when selecting. However paying attention and being selective from the beginning eventually avoids different visions on sustainability and other core values later and can be seen as an important precaution.

**Sharing values – a question of attitude**
As mentioned by interview partners from the case company, they feel that it is important to talk about the environmental efforts in order to be taken serious by potential small collaboration partners that have sustainability at their core. This shows in a way the importance of not only sharing values but also to communicate about it. As beneficial for that can be an educational approach on things that IKEA is following at some parts, referring back to the model of influences on green business (Schaper, 2010) as this is what informs individuals about it and can lead eventually to long term relationships.

Considering the small enterprises being selective in their processes it seems in a way sense making for a ‘greening goliath’ to talk about its effort, one could however question with green entrepreneurs that are influenced by green structural causes anyway care less about what is said and more about what is done. Due to their often personal interest knowledge is created also from other soft structural influences e.g. personal networks, education and family wherefore corporate communication might be of no vail.
5.2 Eco-innovation impact – driving counterparts
Viewing sustainability from a corporate level it is often talked about global project and in connection with big business activities throughout the company. The representatives from sustainable small enterprises however approach sustainability in a more holistic, yet practical way. For the interviewed representatives of small enterprises, it is about less talking and more acting. This process agility is also in line with what the European Commission (2017) sees as asset for small enterprises when it comes to eco-innovation.

As mentioned in the problem discussion small enterprises can have substantial impact on transforming industries when working together with big companies that have the essential impact and reach. Hence research is aware of the synergy effects and it is being discussed more and more in various areas. Already Schumpeter (1983) writes that when new combinations of resources are created and therewith discontinuity is added to a process it can happen that previous, established actors are replaced by new entrants. The case company seems to be aware of this and instead of fighting new entrants it is aimed at forming alliances. This was among others mentioned by the Managing Director of IKEA Food who talks about ‘making friends’ in tech, with chefs and entrepreneurs as one of their five rule for change.

Further, as Schaltegger, Buritt and Petersen (2003) stress the chance to educate people once a company has incrementally improved their own structure. Both, educating people and constant change were mentioned by the interviewees as something of interest and importance for them.

5.3 Process Mobility – a chance and a challenge
As mentioned by several interviews despite its size the case company still operates in quite informal networks and the longer you work there the bigger your personal network grows. While this flexible networking within the company seems appealing to the co-workers at IKEA, it can eventually cause challenges for externals to engage.

Reflecting on barriers of eco-innovation (Carrillo-Hermosilla et al., 2009) where it says that established companies might have an advantage on the process side it seems as even
though the case company has set processes in place a lot of interest is on the side of process flexibility. This is where the collaboration with small enterprises can be fruitful. Just as two internal respondents mentioned, having set all process in place gives the process a lot of importance, maybe even too much and drains agility.

On the other hand a certain kind of stability is also needed and in some cases even desired from the external, small stakeholders. Especially in the beginning when initial starting to work on something it might do well to be able to make use of a certain process structure, maybe provided by a collaboration partner or at least supported. Just as Perry-Smith and Mannucci (2017) mention, different stages in the idea generation process require different social networks, resources and strength of ties.

5.4 Scaling ideas – in favour of up or down
The topic of scaling up or scaling down has been widely discussed in literature, however most of the time from a perspective that favours scaling up, since this entails a wider reach. From the interview partners representing smaller enterprises it is not utterly appealing to constantly scale up as it is important to them to have a solution that is also applicable for the market and close to the consumer need. Hence one can see that despite small companies might face challenges in scaling up in terms of e.g. financial barriers it seems crucial for global operating organizations to be able to scale down and be relevant to the customer. Not giving the consumer the superiority over the process but rather implement learning prior to create a need (Schumpeter, 1983) as well as considering the influence green consumers have on the green business (Schaper, 2010) it is interesting that representatives from within the case company as well as representatives from external small business see the importance of also involving the consumer. One respondent however mentions that the consumer itself is unfortunately not as much involved as the company would like it as according to him their rather collaborate with smaller stakeholders and NGOs. One can see here the importance for big global operation organizations to get closer to their consumer. It feels as if because of their size they have lost the close contact. This is something small enterprises can re-introduce to the process.
That being mentioned the collected data in this thesis shows the potential and challenge of scale for both involved parties. The upscaling of ideas is something Goliath can help David with due to its wide reach and knowledge on the mass market. Scaling ideas down is a necessity especially big companies can profit when rigid processes or size lead to being distant from green consumers.
6 Conclusion

This chapter connects back to the research question and the research results are put into context. Therewith key findings are generated. In addition, implications for future research are presented and the chapter find its closing by mentioning managerial implications.

6.1 Key findings

This thesis aimed at adding knowledge to the field of sustainable entrepreneurship and the interaction of actors from different sized enterprises with each other on sustainability driven projects, in particular those related to food and food waste reduction.

Albeit the frame of food and food waste was of importance for the choice of interviewees, it developed more into the background of the final study. Reason being the actual collaboration of the actors driving the projects was identified as more of relevance to gain profound understanding and eventually adding an uplift to the process of solving the food waste problem through this way. Therewith and by having the research question in mind, that did seek to understand “How do representatives of small enterprises and a global operating company view challenges when collaborating on sustainability driven projects?” the following findings are brought into being.

To start with, the findings of this study emphasize the importance of collaboration between large, global operating companies and smaller parties especially in sustainability driven projects. This was mentioned by representatives from both sides. Although they shared some opinion on drivers for collaboration they often saw different reasons to engage in collaboration in a sustainability driven project with others. Both sides agreed that setting up a network can help to fulfil missing parts. If executed right both can not only benefit from the interaction but in fact can contribute to the development of eco-innovations and industry change.

Without reserve, the talks both with representatives of small companies and representatives of the case company where not really about challenges but more in general
about how to drive and what to do in order to improve. Even when it was especially asked for challenges respondents answered with solutions or ways to combat challenges in the same moment they mentioned it as an issue. Very often challenges where rather seen as chances to change the existing state. There are different aspects that influence networks and eventually lead to challenges, but never defined as real problems. One might see the reason for that in all involved parties seeing the importance of collaboration and therewith are ready to sacrifice or at least invest more energy to make things happen. It seems to be a good energy that is created in collaborations of small and big players.

It is though mentioned by both groups that efforts in careful selection of partners prior to a project are one of the key factors to support a smooth interaction with each other. Meaning in order to create an effective network work has to be done prior to starting the actual project work. Especially when it comes to sustainability it is crucial to have shared values and views on certain kind of activities. Investing time and energy in getting to know each other and eventually informing or educating on the values and company culture is seen as positive and essential. To foster finding a suitable collaboration partner it is seen as important to take care to communicate about efforts and be seen at the right places where likeminded actors meet.

6.2 Research implications
One of the main difficulties with executing the study was the messiness of the field. Especially the area of entrepreneurship research lives from constantly occurring changes and responds to many influences from other areas. Therewith the existence of clear theoretical or scientific models that help describing the areas was not always the case. A lot of the research done in entrepreneurship comes from a practical perspective and with less of an academic goal to reach. While this might be beneficial to easier apply findings in the field it does complicate the theoretical work. It seems as entrepreneurship still is rather something that is done than something that is researched.

Another factor that added complexity to this study was the interest in collaboration or networking between different parties. As generally known, as soon as several interest
groups are involved any project, activity or initiative becomes more prone to create disorganization or at least needs more effort in planning and organizing.

A third factor that lead to multiplicity was the sustainability component. While focusing on sustainability driven interactions only which was initially intended to frame the study and narrow the topic of networking and collaboration between small and big enterprises down, the topic of eco-innovation was introduced to the study. By including the theme of innovation, which is an area of constant change as well, the border was drawn from other areas and therewith gave limitation in width but this did not stop exploring the topic in depth which is an entire world still.

Processes described in research or models created from academia seek to simplify situations, narrow cases down to the bone and generalize. While this helps to understand the core of a situation it sort of removes in a way the element that makes something unique. One can ask if the lack of disorganization is in fact a lack or if it is more the case of asking the wrong question.

For further research one could look into the three defined challenge areas and view their validity in different areas than the food industry, maybe elaboration on the interplay of different sized allies in fair fashion or green technology.

6.3 Managerial implications
Knowing that it is in fact important to remove barriers and set systems in place prior to the start of a commitment is extremely important, no matter the size of the enterprise or activity. The preliminary work that is done beforehand is what makes challenges in working together more of a chance to drive change and rather a challenge to survive. It removes, so to say the difficulties before they appear and enables to focus on the important.

Removing challenges, if one can even call them challenges should however not be the main aim when it comes to collaboration. It is rather the importance of being aware of the
existence of different understandings and possibilities they bring into a process. This awareness and ability to apply the opposites thinking can be what gives the competitive advantage in the end, eliminates collaboration barriers and eventually leads to success. An attempt of illustrating the complex situation within a sustainability process including the small enterprise and the big enterprise can be found in the previous chapter.

Especially when talking about acting and interacting to change the issue of food waste and making a positive impact on the environment, being able to focus on the good rather than having to deal with resolvable issues is crucial.
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Appendices
Appendix A: Semi-structured Interview guideline

– Interview guide –

Challenges in upscaling ideas for circularity
The aim of the master thesis is to discover challenges a global operating company and ecopreneurs face when working together to support circularity (in particular to prevent food waste).

A. General/ Introduction (5 minutes)
   Background of interviewer and interviewee

   Job position; what does it entail; previous experience that is relevant/ does influence the work; what knowledge do you bring in?

B. Sustainability & Waste (10 minutes)
   What major challenges do you see for you company when it comes to sustainability?

   How would you define waste?
   Probes And what about circularity in this case?
   [Distinguish between loss and waste?]

   Is sustainable entrepreneurship something that happens in large firms or small firms?

   How do you rank the priority of environmental issues as business goals?
   Probes Compared to general business goals is it rather low/ high?

   Who or What is the driving force to implement sustainability?

   What comes to your mind, when you hear sustainable entrepreneurship?

   How do you see policies or initiatives from regulators e.g. the UN Sustainability Goals?
   Probes Do they have an influence on your direction, motivation, actions?

   Some talk about a triple bottom line, meaning besides financials (profit) it is also important to consider social impact (people) and the environment (planet) in reporting. How do you pursue that at your company?

C. Process & Projects (10 minutes)
   How does it usually look like when you start a project with external parties?
   Probes Describe the difference to the internal process (if there is any) when implementing a new idea

   Over the last project you have been involved, what was the most challenging for you?
**Probes** Why was that so?
Could collaboration have been the issue?
How well were you prepared to deal with the challenges?
What relations do you consider as hindrance in handling the challenges?

Could you tell me what positive/negative impacts this had on the process?

**D. Collaboration, ideas, application** (20 min)
Where do you see your contribution potential towards sustainable transformation of the industry you are in?

When and where do you find it necessary to partner with complementary counterparts?

When it comes to collaboration, are you willing to lower certain standards to make it work?

**Probes** Standards when it comes to sustainability, social interactions?

What major differences do you see when working with external parties compared to internal?

How fast do you think ideas from eco-preneurs can be applied to a global level?

**Is there anything you would like to mention/add?**
Appendix B: Consent Form

Interview date: ____________________________________________

Topic: Challenges in upscaling ideas for circularity

The aim of the master thesis is to discover challenges a global operating company and ecopreneurs face when working together to support circularity (in particular to prevent food waste).

Thesis student: Magdalena Schwarzenlander; Innovation through Business, Engineering and Design, specialization Business

1. I confirm that I have read and understood the information about the above study. I have had the opportunity to consider the information and ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and I will not be asked any questions about why. I can give notice to withdraw until 2018-05-01.

3. I understand that the information I provide will be confidential, I will be anonymous or a pseudonym will be used to protect my identity.
   
   • I agree to make my title public without revealing my personal details such as name
   
   • I prefer complete anonymity

4. I understand that my words may be quoted in publications, reports, web pages, and other research outputs, but my name will not be used. The interview will be documented in notes or recordings. It has been explained to me when and how the recording or scripting of the information I provide will be stored and destroyed.

5. I agree to take part in the above study.

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Name of Participant                Date
                  Signature

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Name of Master Student             Date
                  Signature
General Information

Gender

☐ male  ☐ female

Job Position/ Title  ________________________________

Level (junior/mid/senior) __________________________

How many years of work experience do you have?

☐ < 5 years  ☐ more than 5 years