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## List of abbreviations

<b>CSD</b>	<b>Conference on Sustainable Development</b>
<b>CSE:</b>	<b>Copenhagen School of Entrepreneurship</b>
<b>CSR:</b>	<b>Corporate Social Responsibility</b>
<b>G250:</b>	<b>Global 250 Companies*</b>
<b>GEDI:</b>	<b>Global Entrepreneurship and Development Institute</b>
<b>GEI:</b>	<b>Global Entrepreneurship Index</b>
<b>ISO</b>	<b>International Organization for Standardization</b>
<b>NSOS:</b>	<b>Non-Sustainably Oriented Startups</b>
<b>SCM:</b>	<b>Supply Chain Management</b>
<b>SDC:</b>	<b>Sustainable Development Commission</b>
<b>SDG:</b>	<b>Sustainable Development Goals</b>
<b>SE:</b>	<b>Sustainable Entrepreneurship</b>
<b>SOS:</b>	<b>Sustainably Oriented Startups</b>
<b>SSCM:</b>	<b>Sustainable Supply Chain Management</b>
<b>TBL:</b>	<b>Triple Bottom Line</b>
<b>UN:</b>	<b>United Nations</b>
<b>WCED:</b>	<b>World Commission on Environment and Development</b>

*\*The G250 companies are drawn from the Fortune Global 500 List (2010) and represent more than a dozen industry sectors. Financial services, insurance, and securities companies dominate the sample, followed by consumer markets (trade and retail), oil & gas, electronics & computers, communications & media, automotive and utilities. Two-hundred-and-eight of the 250 are publicly traded enterprises*

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## Abstract

The purpose of this case study is to investigate how a theoretical understanding of sustainability has been incorporated into entrepreneurship and supply chain management by startups. The objective is to acquire an understanding of the intricateness and significance involved with startups' relationship with adapting sustainability. Thus, evaluate how sustainability is incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically startups at CSE (Copenhagen School of Entrepreneurship). With the intention of contributing to future applications of sustainable entrepreneurship, sustainable supply chain management and sustainable systems within existing literature.

Based on an interpretivist perspective and ontological assumptions, the study takes an explorative approach to a case study of six entrepreneurs and CEO's of startups operating within CSE. These six startups are sorted into two groups, three classified as SOS (sustainably oriented startups) and three as NSOS (Non-sustainably oriented startups) to best differentiate and determine the interconnectedness of sustainability to different kinds of startups.

The findings distinctively depicts the influences of sustainability on existing entrepreneurs, by applying a conceptual framework generated through entrepreneurship, supply chain management, organizational systems theory and sustainability. The areas of improvements and inclusion are based on emerging patterns of: **incorporating sustainability**, which involves identifying, adapting and applying sustainability, and **creating a sustainable system** within a startup, which requires a structured, flexible and transparent supply chain management and internal organizational systems.

The results of the study display a complexity within the relationships of entrepreneurs, their startups and sustainability. SOSs and NSOSs display distinct variations with the identification of sustainability, but large

similarities with the incorporation of it. The startups displayed a higher willingness to associate with SDGs (Sustainable Development Goals), due to the risk of incorrectly associating with sustainability as an overall term. This study highlights that startups merely have to recognize the usability of sustainability by incorporating the term, without knowingly misusing it. However, not developing any sustainable considerations for a startup is considered worse. Sustainability continues to be incorporated into literature and business involvements, which is highlighted in the startups. For example, outdated SCM (Supply Chain Management) models are evolving into SSCM (Sustainable Supply Chain Management) models. Along with the development of existing business models follows the literature and the actions of companies. Startups identify with their own impact and vision, rather than applicably integrating sustainable structures and considerations, however, the mindsets entrepreneurs' display has changed significantly, to become more transparent and adaptive towards sustainable attributes.

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## 1. Introduction

The concept of sustainability has been developed for more than 50 years; it is explored by organizations, and has exponentially become more relevant to execute within established organizations today, but also startups have begun to pick up on this trend. The drives of environmental sustainability are portrayed as conflicting with the interests of economic development, which is based on how developed countries are achieving economic growth at the expense of natural resources (Hall et al., 2010). Allowing developing countries and businesses to grow without compromising sustainable development, pushes companies to alter their current mindsets for how business enterprises are generated.

The UN has focused mainly on peace, human rights and international cooperation, however, in the 1972, the UN expanded their focus to the environment and sustainability. Firstly, this resulted in a conference in Stockholm, Sweden developing the first UN Environmental Programme. Secondly, in 1983, the UN established a Commission on Environmental and Development referred to as the Brundtland Commission focusing more on the cause of environmental problems. This lead to the development of the Brundtland Report, which significantly defined sustainable development as, *“development that meets the needs of the present without compromising the ability of future generations to meet their needs.”* (WCED, 1987, p. 8)

In 2000, the UN hosted a Millennium Summit, in order to discuss the coming century, where specific targets were established. These targets included eradicating extreme poverty and hunger, improving maternal health, gender equality, developing global partnerships and ensuring environmental sustainability amongst other targets. An increasing amount of countries

became aware of these targets. After the UN Conference on Sustainable Development (CSD) in Rio 2012, where the objective was to produce universal goals to encounter environmental, political and economic challenges faced by the world. More than 195 nations have agreed in 2015 to reach these goals by the year 2030 (Daws & Weiss, 2009).

A continuous emphasis on sustainable actions in managements to better livelihood for businesses and the planet has grown within the global community, which in 2015 were developed into 17 Sustainable Development Goals (SDGs), with an aim to achieve prosperity and amity for everyone whilst respecting the preservation of the planet. There is a global agenda for governments, civilians and businesses to join forces and best develop scalable sustainable solutions with a common deadline in 2030. The Danish government and Danish organizations contribute to make tangible and accessible results towards reaching these goals in 2030.

		2019	2018	2017	2016	2015
1	United States	86.80	83.61	83.37	86.20	85.00
2	Switzerland	82.20	80.45	77.96	67.80	68.60
3	Canada	80.40	79.25	75.60	79.50	81.50
4	Denmark	79.30	74.31	74.06	76.00	71.40
5	United Kingdom	77.50	77.75	71.29	67.70	72.70
6	Australia	73.10	75.45	72.51	78.00	77.60
7	Iceland	73.00	74.15	73.49	68.90	70.40
8	Netherlands	72.30	68.15	67.79	65.40	66.50
9	Ireland	71.30	73.72	70.96	65.60	65.30
10	Finland	70.20	67.90	66.91	61.80	65.70
11	Sweden	70.20	73.11	75.47	75.90	71.80
12	Hong Kong	67.90	67.35	46.38	45.40	45.90
13	Israel	67.90	65.44	59.08	57.40	59.90
14	France	67.10	68.51	64.09	66.40	67.30
15	Germany	66.70	65.93	64.87	64.60	67.40

*Figure 1 – Global Entrepreneurship Index rank of all countries from 2015-2019 (GEDI, 2020)*

Danish entrepreneurship and startups have a high rate of success for reaching the abovementioned goals by 2030, based on the fact that Denmark is ranked

4<sup>th</sup> out of all countries in 2019, according to the Global Entrepreneurship Index (GEI). The Global Entrepreneurship and Development Institute (GEDI) was developed in 2009, where it included 64 countries, and the number of members has increased to 137 in 2018-19. This index consists of 14 aspects and is a mix of attitudes, resources, and infrastructure referred to as the entrepreneurship “ecosystem” that GEI uses to measure the health of an ecosystem (appendix 1) (Acs & Szerb, 2010).

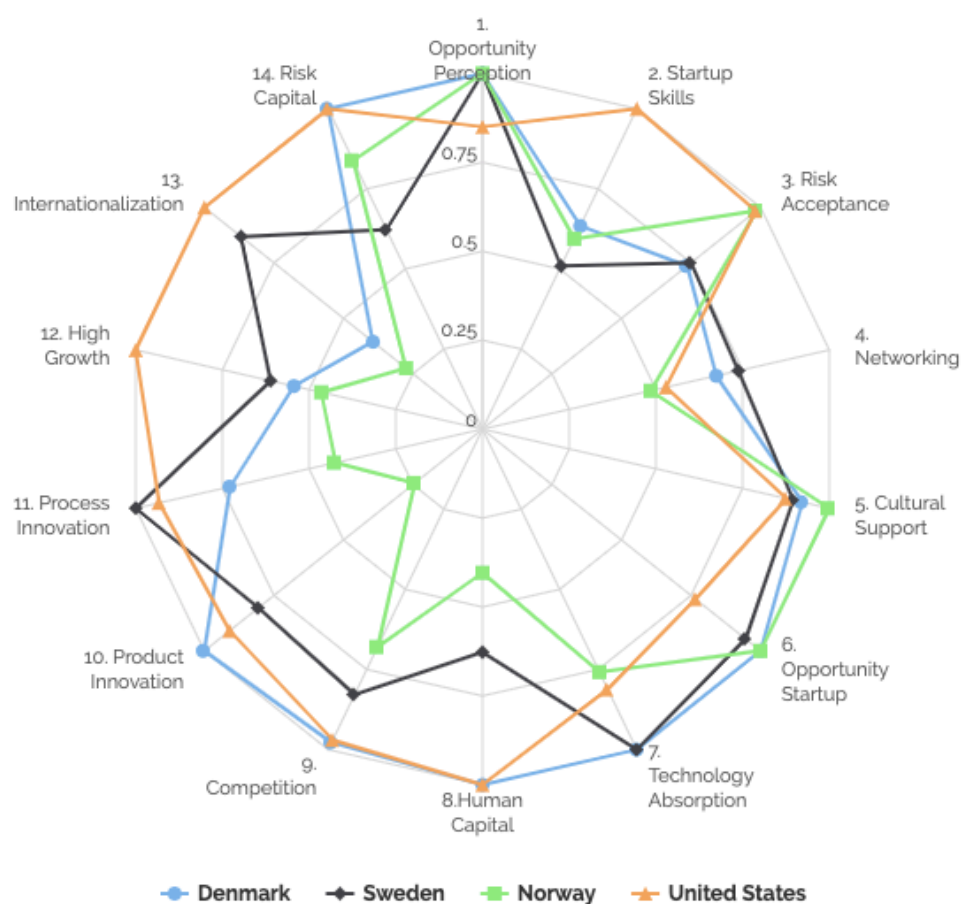


Figure 2 – GEI for Denmark vs. Sweden, Norway and USA (GEDI, 2020)

In order to provide a more detailed overview of how Denmark is comparing to other countries, especially the Nordic countries, the wheel above has been developed using a data explorer on the website of GEDI (Global Entrepreneurship Development Institute, 2020). Danish entrepreneurs score well with opportunity perception (1) and startup (6), which indicates that

enterprises are good at seeking out prospects. However, growth (12), internationalization (13) and startup skills (2) are lacking. This means that startups are not successfully getting outside of the Danish borders. However, seeking opportunities and developing economic prosperity within the Danish environment is enough to secure future development for startups in Denmark. However, are Danish startups focusing on the essentials to grow and develop sustainably?

According to Business and Sustainable Development Commission (2017, SDC), global demand for sustainable products and services are increasing rapidly, governments and consumers look towards solutions with a positive contribution for people and the planet. The global emerging market opportunity is expected to be worth USD 7-12 trillion a year by 2030, which Danish businesses could seize a share of for up to USD 60 billion a year, according to estimations by Dalberg in 2019. Danish corporations are considered well positioned to tap into this market, since sustainability has been part of the business culture and incorporated into their core values. A survey in 2018 that included 160 Danish companies engaged with markets outside Europe and North America shows that 60% of these were aware of SDGs, and more than half had already incorporated them into their company strategy (Dalberg, 2019).

These future business opportunities are, therefore, considered to boost financial performances, whilst contributing towards reaching the SDGs by 2030. Nevertheless, how are startups integrating these values through sustainable entrepreneurship, through the SDGs or both into their businesses? And, What are startups considering as key systems, when developing business structures? Or, is sustainability just a loosely integrated term for the startup environment in Denmark? These are some of the questions that will be revealed in this thesis, in order to investigate future business opportunities

and current business structures related to sustainable considerations within startups.

The role of sustainability in entrepreneurship and supply chain management (SCM) has not been explored to the fullest. Limited research exist within the subject of sustainability entrepreneurship (Dean & McMullen, 2007). A risk of dissertations developing excessively unreliable optimism regarding sustainable development and its capabilities linked to entrepreneurship is irrefutable, without the proper research (Hall et al., 2010). Focusing on sustainable aspects for startups in Denmark further reinforces the existing gap between sustainability within entrepreneurship and supply chain management. Contemplating these gaps in the current literature is what will be uncovered and supplemented with the findings from the study.

## 1.2 Research Question

This case study of a specific incubator at Copenhagen School of Entrepreneurship (CSE) will assist with diminishing existing knowledge gaps. It will explore the existing knowledge in regards to sustainable entrepreneurship, startups, systems theory in organizations, and supply chain management. Additionally, the study will explore how and to what extent startups are implementing and incorporating terms, but also ideas related to sustainability. Lastly, the findings of the study will be summarized and recommendations in regards to further research and future startups will be generated based on the literature and data analysis. The main research question and guiding questions for this study are:

*How is sustainability incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically startups at CSE?*

- What kind of systems are startups considering, when developing business structures and supply chains?
- How are startups evaluating and associating with sustainability and SDGs within their business?

In order to answer these questions, the study will be guided by an interpretivist philosophy of science. A case study of entrepreneurial enterprises is conducted and a thematic analysis of the cases is generated from semi-structured interviews.

The paper is exploited using a deductive research approach and structured as follows: The next chapter explore the conceptual framework and review the literature in the field of entrepreneurship, sustainability, startups, systems theory in organizations and supply chain management. The third chapter presents the philosophical considerations and methods for collecting the data and analyzing it. The forth chapter presents the case study, before analyzing and discussing the findings of the data in the fifth chapter. The sixth chapter explores the usefulness of the data by concluding on limitations, future research, and recommendations based on the findings.

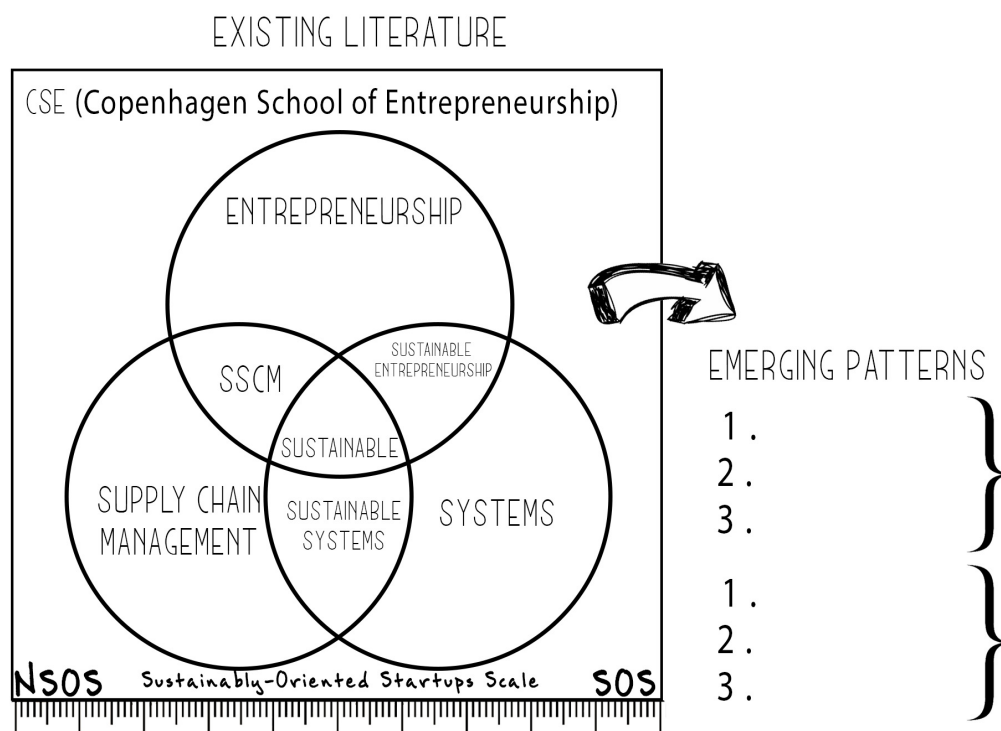
## 2. Literature Review

The intention of this chapter is to display a review of existing literature on sustainable entrepreneurship and sustainable supply chain management (SSCM), and how this is defined from systems of organizations, but also specifically how startups are defined. This consists of definitions, key concepts, challenges, and various characteristics. Since this is an interpretive study the purpose of the literature review is to guide the reader towards a greater understanding of the research purpose. A conceptual framework is introduced to sustain further argumentations later on in the thesis. The reason for presenting this framework is to guide the reader towards developing and understanding of the knowledge in regards to the key terms involved, which will also serve as a tool for the analysis.

### 2.1 Conceptual Framework

The conceptual framework outlines the structure of the literature review, as well as examines the research problem. The framework is based on inputs from the theoretical framework of sustainability and sustainable supply chain management. The key aspects are startups, systems theory, entrepreneurship, sustainable entrepreneurship, supply chain management, and sustainable supply chain management. The assumption is that sustainability is interlinking within the aspects differently, but in the center of the system, in order to understand how startups chose to assess the terms and address them within their own system. Moreover, the framework is adapted from Elkington's Venn diagram for reaching sustainability, whilst interpreting how entrepreneurship and supply chain management is incorporating sustainability as a factor. This framework is transparent throughout the

research; it is illustrated in figure 3, but further elaborated on in the analysis section.



*Figure 3 – Conceptual Framework*

## Defining key terms

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### 2.2 Entrepreneurship

Entrepreneurship is the activity of starting up a business endeavor, by taking financial risks in the hope of creating profits. However, entrepreneurship is envisioned as much more than that. Professor Howard Stevenson, who is considered the godfather of entrepreneurship studies at Harvard Business School, defined entrepreneurship as “the pursuit of opportunity beyond resources controlled” (Stevenson & Jarillo, 1990). Thomas R. Eisenmann, a current professor in Business Administration at Harvard Business School broke this definition down in 2013, and argued that the definition was still

valid, but lacked a few clarifications of the specific terms used. The term “pursuit” implies that entrepreneurs often perceive a short window of opportunity where they have to attract resources. “Opportunity” relates to the different options an entrepreneur must consider, such as pioneering an innovative product, design a new business model, create a cheaper or better version of an existing product, or target an existing product to a new set of customers. However, these are not considered to be mutually exclusive, since one might employ a new business model for an innovative product.

“Beyond resources controlled” indicates resources constraints involved when a new venture’s emerge and the founders control human, social and financial capital, which is usually kept to a bare minimum, whilst time is heavily invested into the endeavor. This is often enough to create a new venture and become self-sustained from internally generated cash flow. The definition investigates entrepreneurship as a distinctive approach to managing rather than a certain stage of an organizational life cycle (such as the startup phase), where a specific role for the founder entails personality attributes (Eisenmann, 2013).

A more theoretical definition of entrepreneurship is presented as a multi-dimensional concept, which involves owning a small business, being innovative, acting as a leader, or starting up a company. It involves spotting opportunities to drive the market, which causes “creative destruction” or a “shift”, and doing so in a team or inside a company (Schumpeter, 1934). Being an entrepreneur involves starting without any resources and creating new values, social, governmental or academic (Tefula & Tefula, 2017). The variation and interpretation of the definitions of entrepreneurship suggests a modification of the term, to include more specificity or debt for the development of a more common understanding of what it means to be entrepreneurial.

### 2.2.1 Sustainable Entrepreneurship

If entrepreneurship is a disruption or a shift of patterns and styles, then sustainable entrepreneurship (SE) capsule an environmentally friendly and socially conscious style that changes the conception of what is considered sustainable (Johnsen et al., 2018). Sustainable entrepreneurship should be seen as “a solution to, rather than a cause of environmental degradation” (York & Venkataraman, 2010). However, some sustainable entrepreneurs end up harming the natural environment despite their commitment to green values (Shepherd & Patzelt, 2011). The concept of style in order to rethink relationships between sustainability, organization and entrepreneurship is originally developed by Spinoza, who argues that style is concerned with how to conduct oneself, think, talk and act in social settings. Style revolves around ontological dimensions of living, since “style is not an aspect of things, people, or activity, but rather, constitutes them as what they are.” (Spinoza et al., 1995, p. 19). Moreover, a new set of practices has to emerge in order to change the style that organizes our lives. To best attain this, Spinoza et. al (1995) argues that entrepreneurs must locate “disharmonies” and “anomalies” for a certain style, such as routines managing specific practices that are considered obsolete. These new practices are not created by entrepreneurs, but rather developed from the relationship between entrepreneurs and disharmonies and anomalies encountered in any set of exercises. The concept of sustainable entrepreneurship suggests that instead of focusing on “sustainability management systems” in large corporations, alternatively developing systems of organizing allow for new forms of sociality and environmental responsiveness to emerge (Johnsen et al., 2018). Some components of sustainable entrepreneurship is rooted in the previously addressed definition of sustainable development delineated by the UN, “development that meets the needs of the present without compromising the

ability of future generations to meet their needs" (WCED, 1987). Hence, sustainable entrepreneurship should support sustainable development. Nevertheless, this is not always the case, since some corporations loosely adapt concepts such as "CSR" and "sustainability" to display a certain capitalist imaginary (Nyberg et al., 2013). As sustainable entrepreneurship revolves around properties of corporate social responsibility (CSR), it refers to the actions towards promotion of social goods, beyond the interest of the company (McWilliams & Siegel, 2001). However, CSR is limited to societal engagement from companies, and not necessarily linked to entrepreneurial acts or innovations, such as funding's or donations. Research that concentrates on development, without simultaneously considering sustainability, does not enter the field of sustainable entrepreneurship (Hockerts et al., 2018). Sustainable entrepreneurship should not be grounded in preconceived concept of sustainability, but rather disrupt a current understanding of sustainability. Sustainable entrepreneurship should not be considered as interconnectedness between environmental and economic values, but an openness that push common understandings of environmentally friendly and socially conscious styles (Johnsen et al., 2018).

Over the past decade, entrepreneurship scholars have published - in mainstream entrepreneurship and management journals - over 80 original research articles regarding the area of sustainable entrepreneurship (Muñoz & Cohen, 2018). The concept has attracted attention of political, economic and academic sectors in the recent years, especially those concerned with social and environmental issues (Shepherd & Patzelt, 2011). This has designed various definitions with a diverse terminology. Terms like "ecopreneurship" (Dixon & Clifford, 2007; Isaak, 2002; Schaltegger, 2002) "environmental entrepreneurship" (Anderson, 1998; Linnanen, 2002) "sustainable development entrepreneurship" (Cohen & Winn, 2007; Dean & McMullen, 2007) "sustainable entrepreneurs" (Choi & Gray, 2008; Tilley, F. and Young,

2009) and “green entrepreneurship” (Allen & Malin, 2008; Ndubisi & Nair, 2009) have emerged and are often used to describe the same concept, an entrepreneur with an interest for environmental, social and economic issues.

The term is also closely related to social entrepreneurship which is “the process of identifying, evaluating and exploiting opportunities aiming at social value creation by means of commercial, market-based activities and of the use of a wide range of resources” (Bacq & Janssen, 2011, p. 376).

Sustainable entrepreneurship has been associated with the triple bottom line (TBL) (Nicolopoulou, 2014). Many researchers assess entrepreneurial activity as sustainable, when it integrates universal economic, social and environmental goals that persist over time (Gibbs, 2006; Schlange, 2014; Tilley, F. and Young, 2009). Thus, it can be considered a unique perception of traditional entrepreneurship that combines economic, social and environmental value creation together with a concern for the well being of future generations (Hockerts & Wüstenhagen, 2010). Hence, an organization that only focuses on environmental issues and survives on government subsidies and donations cannot be considered as entrepreneurial, because it cannot sustain without these sources of funding (Hall et al., 2010).

Muñoz et. al. 2018 describes that our perception of the term sustainability and sustainable entrepreneurship has influenced us to observe the phenomenon through a “do-good” lens. This hinders us from determining causes and consequences from an analytical viewpoint, or in attempting to identify the nature stages of the sustainable entrepreneurship process. And, that sustainable business models provides a roadmap for pursuing social and environmental impacts. However, they can only materialize from practices capable of producing environmental and social benefits. This is why a different lens has to be applied, in order to truly understand and develop entrepreneurship with a focus of reaching the potential for actually doing and implementing good and sustainable practices.

## 2.3 Startups

A startup is predefined by the name, as it is the start or beginning of developing something. In the business industry, a startup is a term used to describe how a business is built. The term has been defined as a major source of job creation, technological innovation, or regional growth; however, a startup is defined by more than just starting a business enterprise (Birch, 1981; Oviatt & McDougall, 1995; Schumpeter, 1934).

Through examining the literature on startups, three criteria are consistent “new”, “active”, and “independent”. These are highlighted in the book, “Defining and tracking business start-ups” (Luger & Koo, 2005). The overall definition of a startup is relatable: “A business which did not exist before during a given time period (new), which starts hiring at least one paid employee during the given time period (active), and which is neither a subsidiary nor a branch of an existing firm (independent).” This overall definition encompasses a well-congested cocktail of various definitions of the term, and simplifies the selection process of deciding, whether, a business is a startup. However, having paid employees is not a necessity for a startup, since the motivation behind starting a business endeavor is not always monetary. Various startups use “new” as a discriminator, such as, “the creation of an entirely new enterprise which did not formerly exist as an organization” (Keeble, 1980).

In order to be considered a startup, firms should not identify as being new, or by their date of origin, but rather if it is an active firm or not. A firm is defined as a startup, if it is “independent”, which is “one which has no obvious parent in any business organization” (Johnson & Cathcart, 1979). The three criteria developed by Luger & Koo in 2005 are good at encapsulating what a startup means, but also what it should entail to express norms of a newly formed business. However, not everybody has what it takes to start a business

endeavor, since it usually correlates with having an entrepreneurial mindset and an iterative attitude for innovative ideations.

## 2.4 Systems Theory in Organizations

Focusing on internal systems and their development is essential to understand the full picture of a startup, after seeking out what comprises the creation of it. General systems theory was originally developed by biologists, who came with an organismic concluding view that a system was more than the mere sum and interactions between the system's components, but rather complex due to the arrangements of these components. Several links and similarities were made between the characteristics and structure of a living organism and that of a social organization (Bertalanffy, 1950).

The social psychology of organizations and the application of systems theory concepts to organizational life was developed in 1966, by Daniel Katz and Robert Kahn. Systems theory developed into an alternative perspective from classical management, which derives from an era dominated by examining organizations as "machines". This was with a goal of wanting efficiency, productivity, and control, where "one-way is right" as the major business thinking approach (Katz & Kahn, 1978). In *Scientific Management*, Frederick Winslow Taylor revolutionized productivity, by stating that organizations work most efficiently through working "one fast way" (Taylor, 2003). However, systems approach is redefining the focus of how management operates. For a systems approach, the organization as a whole is observed as a living organism with a goal of describing and explaining how the organization works, since there are various ways of reaching a goal, not just one right or fast way (Arnold & Wade, 2015).

An organization usually consists of inputs, a process and an output. When operating in an open system, information flows in and out, which exchanges with the information in the environment - if the system is to function most effectively. Subsequently, environments are unpredictable and constantly under development, which toughens the effectiveness of predicting such changes or risks. This is a weakness of addressing organizations as a system; however, if the organization includes risk assessment of the environment it is operating in, this should not be a larger issue than that of other companies.

A system interacts through mutual feedback processes and interconnected subsystems, which means that one part of the system directly/indirectly effect the other parts of the system (Hester & Adams, 2017). The momentum of systems thinking was described as a relationship between general systems theory and organization theory. Modern organization theory and general system theory are similar in that they look at organization as an integrated whole (Scott, 1961, p. 15-21).

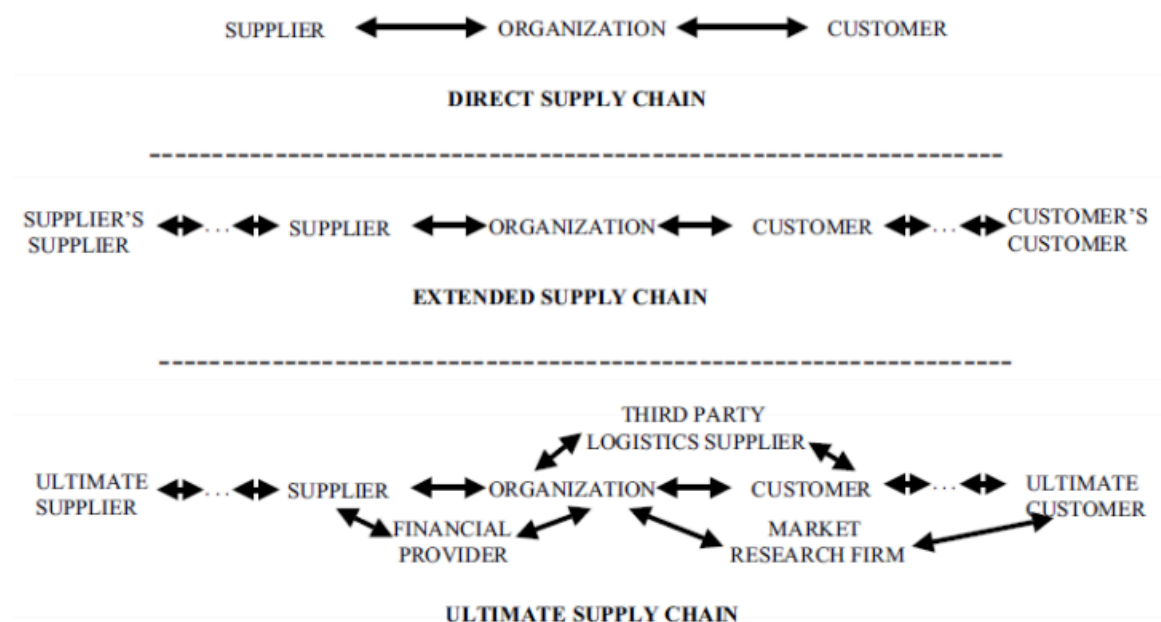
Real world systems are considered to be open systems that interact and influence the external environment they are operating in, which ultimately allows for development or growth of that system (Helou & Caddy, 2006).

After a disturbance is sent downstream it ripples back throughout the system, which increases the amplitude of that disturbance, similar to that of a downstream supply chain disturbance. For example, the consequences of a managers' decisions could result in an increased amplitude for the upstream supply chain members (Fowler, 1999).

## **2.5 Supply Chain Management**

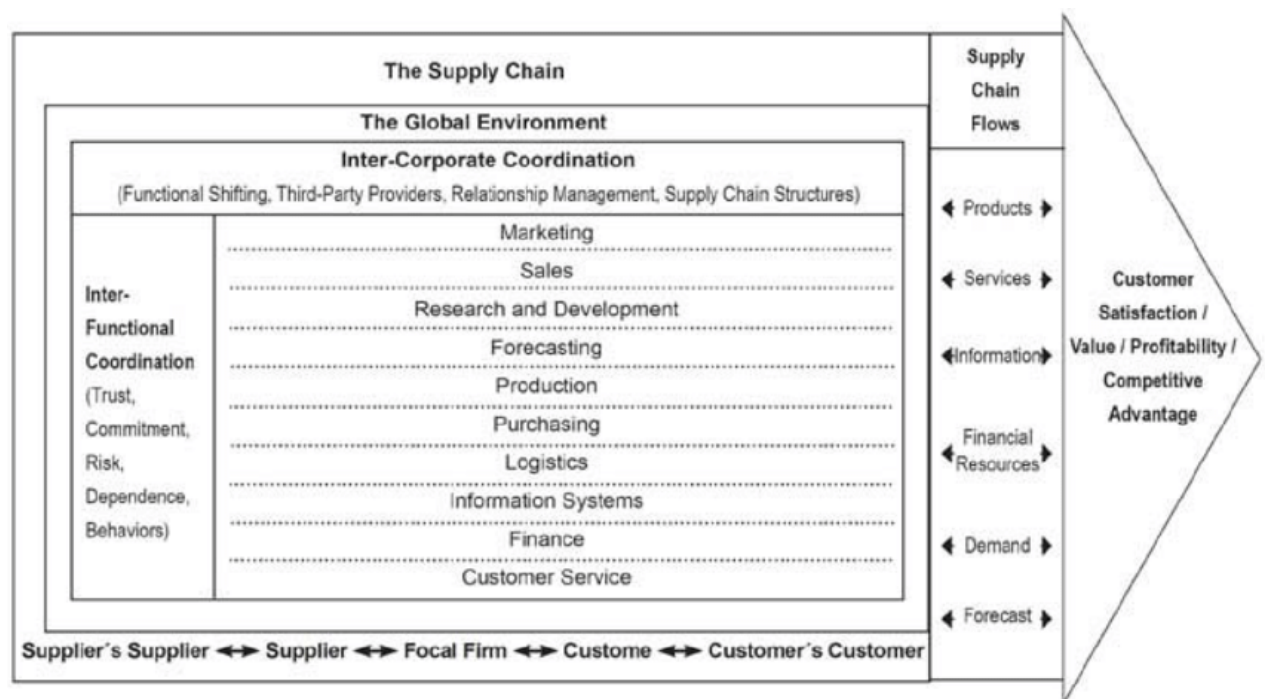
Supply chain management involves the flow of materials and products; however, the term is defined by authors from several different viewpoints, such as an integrated system between vertical integration and separate

identities, but also as a management philosophy or management processes (Cooper & Ellram, 1993; Stenger, 1998). Supply chain is considered as a set of firms that pass materials forward through a manufacturing process from product to placing it in the hands of the end user. These firms consists of raw material producers, product assemblers, wholesalers, retailers, merchants, transportation companies etc., depending on the product or service delivered to the end consumer (La Londe & Masters, 1994). However, it can also be defined as the network of organizations involved through upstream and downstream linkages in various activities, which produces values in terms of products or services delivered to the end consumer. Hence, it is a chain of multiple firms producing upstream (i.e. suppliers) and downstream (i.e. distributors) until ultimately reaching the consumers (Salhi & Christopher, 1994). John T. Mentzer et. al. defines supply chain through the model illustrated below, which represents three categories for a supply chain: direct, extended and ultimate. These define the different types of channel relationships interlinked within the supply chain.



*Figure 4 – Types of channel relationships*

Various definitions have attempted to define SCM over the years, however, such a variety in definitions often confuses more than benefit theorists, when it has to be scoped. Jones and Riley defined the term SCM in (1985) as “... the total flow of materials from suppliers through end users...” whereas; Cooper et al. defined it in (1997) as “... an integrative philosophy to manage the total flow of a distribution channel from supplier to the ultimate user.” These definitions represent the same saying of a process from suppliers to users; however, the term has become more complex throughout time. As a result, a model of SCM is developed to include all of the different aspects that can be involved within a supply chain.



*Figure 5 – A model of supply chain management*

This model not only represents the complexity of the terms and includes part of the types of channel relationships, but it takes into account the supply chain structures, flows, and customers in a more systematized manner (Mentzer, 2001). This model has been widely adopted as a tool to define the flow of SCM, and the stakeholders involved within the process (Supply Chain Council, 2012).

The motive behind establishing a supply chain is to create a form of competitive advantage (Monczka et al., 2009). This could improve profitability and enhance overall customer satisfaction (Giunipero & Brand, 1996). Competitive advantage is correlated with the customer value a firm creates, as it aims to establish a profitable and sustainable position against competitive forces (Porter, 1980).

Henceforth, the implementation of SCM enhances customer satisfaction and value, leading to a greater competitive advantage for the supply chain and stakeholders. Leading-edge companies have taken this into account and realized that true competition revolves around supply chain vs. supply chain, rather than company against company (Mason-Jones & Towill, 1997).

A rich supply chain strategy combined with strategic goals of participating companies should drive business and technical capabilities, despite the fact that these capabilities have shifted from integrated forecasting and planning to a more seamless data management form, due to modern up-to-the-minute visibility (Bughin et al., 2016; Gezgin et al., 2017). With an ever-changing environment and modern risks such as natural disasters, trade wars, viruses, terrorism and political turmoil, the supply chains are constantly redesigned to become as resilient as possible. This includes contingency plans, utilizing alternative supply chains by integrating and analyzing the market intelligence to rapidly take action and minimize impact of certain disruptions (Jabbarzadeh et al., 2016). A general definition of SCM does not exist, however, the term is accepted and known amongst businesses. This is apparent from analyzing more than 100 SCM articles, 12 posted a unique definition, 21 referred to existing ones, and 9 used a modified version of an existing one, whereas 58 left the term undefined (Burgess et al., 2006). This suggests a lack of universally accepted definitions, since the term is also considered as a synonym for logistics, operations management, purchasing management etc.

### 2.5.1 Sustainable Supply Chain Management

Expanding on SCM, sustainable supply chain management is a term applied more often to the current business community, as more companies are producing sustainability reports and more customers are demanding them. About 68% of the G250 firms had generated a separate annual sustainability report in 2004, and in 2010 this number was up to 95%, where the report is taking into consideration environmental, social, and economic issues, in contrast to the primary emphasis on environmental/CSR reporting – in addition, 80% of these reports also discuss supply chain-related issues (KPMG, 2008, 2011).

The term sustainability has multiple definitions, as previously mentioned, the most common definition is from the Brundtland Commission in 1987. This definition provides a more generic understanding of the term sustainability, but very little insight to what businesses should incorporate as sustainable behavior or structures in terms of their SCM. Based on the review of the literature from Carter & Rogers (2008), they suggest that at a larger level, organizational sustainability consists of three components: the natural environment, society, and economic performance. However, a more developed concept for organizational sustainability is the theory of the triple bottom line, which describes a balance between economic, environmental, and social factors (Elkington, 1998). The model suggests that these factors display associations that an organization can become involved with and be beneficial to both the social and environmental aspect, but also create economic stability through the development of competitive advantages as a result. Therefore, sustainability is considered to be a fundamental principle of smart management (Savitz & Weber, 2006).

Moreover, when dealing with the review of sustainability literature in general, some aspects are often mentioned but not included, which consists of risk management, transparency, strategy, and culture. The term SSCM is therefore defined as “the strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systematic coordination of key-organizational business processes for improving the long-term economic performance of the individual company and its supply chains” (Carter & Rogers, 2008). These areas are highlighted and correlated with the terms included in the TBL, thus, forming a new model for sustainable supply chain management.



*Figure 6 – A model of sustainable supply chain management*

The model includes Elkington’s concepts for achieving sustainability, combined with the terms for attaining SSCM, which are based off Mentzer’s model of SCM in 2001 (see figure 5).

Multiple other definitions of SSCM have incorporated these parameters of sustainability, such as “the management of material, information and capital flow as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e. economic, environmental and social, into account which are derived from customer and stakeholder requirements.” (Seuring & Müller, 2008, p. 1700).

Despite the fact that extended amounts of literature review publications deal with performance, few define a specific comprehension of what sustainability performance is and should be measured as. Some refer to a reduction in pollution, a contribution to the improvement of natural environments, or an impact on operational performances (De Burgos Jiménez & Céspedes, 2001; Golicic & Smith, 2013; Green et al., 2012). In general, consumers want to feel pleased, have a clear conscience and ensure that the products they are purchasing will not cause harm to them or the environment throughout its supply chain (Roberts, 2003). The goals of social responsibility should be linked to organizational goals (Azzone & Noci, 1998). Social responsibility should, therefore, be a part of the key measurement indicators, since what is unable to be measured is considered intangible (Eriksson & Svensson, 2015).

Measuring sustainable supply chain management can be a difficult affair, however, achieving specific performance goals can be measured with indicators. The main indicators throughout 20 years of performance measurement in SSCM have been summarized as quality, speed, dependability, flexibility and cost (Gunasekaran et al., 2004). Specific metrics and units of how to measure SSCM have previously been disregarded, up until 2005. However, since it is anticipated to generate higher performance of a company's operations, and increase sustainability performance for the supply chain in its entirety, it has gained more attention (Beske-Janssen et al., 2015). Another aspect that has been disregarded within sustainable supply chain management is the future orientation, which is implied in the definition

of the term, but not highlighted through the execution of it. Corporate practices and researchers focusing on sustainability performance measurement and SSCM are challenged to seize the impacts of sustainability, its improvements and developments in the future. However, Burritt & Schaltegger (2014) suggested that it would require a “shift” from information management tools, such as cost and impact accounting to a more budgetary, financial, and impact plan - to put it in accounting terms. This unconsciously suggests a more entrepreneurial approach towards disrupting a specific style within the standards of SSCM. Changes in organizational forms, structures, and processes tend to occur based on the evident changes in the external environment, which is similar to the behavior of supply chains (Hannan & Freeman, 1977).

There is an increasing demand towards companies displaying transparency, traceability, and corporate responsibility for their supply chains. The success factors are determined by how they chose to interact with smaller and low-cost suppliers from developing countries, as some have lost reputations and competitiveness from overlooking certain supply chain linkages with even their lowest serving suppliers. Supply chain standards towards sustainable productions should evolve from a discussion of local producers, organizations, and international NGOs, since this process ensures representation and involvement of those smaller suppliers. This could aid in developing effective sustainability initiatives, achieve positive social impacts, and reinforce company competitiveness (Perez-Aleman & Sandilands, 2008).

Responsibility should, therefore, be an essential aspect for managers to create an awareness of the expectations towards sustainable business operations (Reuter et al., 2012). In order to fully display sustainable behavior, a company must not be afraid to share full transparency, organizational structure and integrated strategy for the supply chain and extended network (Miemczyk et

al., 2012). According to Krause et al. (2009, p. 18) “a company is no more sustainable than its supply chain”.

Companies often adopt “verified” sustainable management practices, such as codes of conduct, third-party certifications (e.g. ISO verifications), auditing, supplier questionnaires or training and development programs. These initiatives suggestively generate transparency, however, they have been met with some criticism, as they do not address sustainability effectively in the supply chain, before coupled with top management (Grosvold et al., 2014). Issues of monitoring and verifying factual sustainability can justify why companies do not decide to focus on systematic changes that lead to the improvement of SSCM, but instead take on internally centered initiatives, such as waste management and cost reductions (Holt & Ghobadian, 2009).

In order to demonstrate what is considered “good” SSCM practice, companies must be proactive and demonstrate commitment towards sustainability measures. Proactive companies do not view SSCM as an additional cost, but more of an “opportunity” to become innovative and influence the future generations, which in turn may accumulate financial rewards in the long run (Clarkson, 1995; Grosvold et al., 2014). Grosvold et al. (2014) observed that companies are primarily concerned with risk; therefore, they fail to incorporate specific requirements within their supply chain. Instead, managers should embed SSCM by investing time and money in developing a mutual trust with their first-tier suppliers through trainings, which would encourage and push the requirements down the chain. Although managers believe that supply chain and strategic entrepreneurship can lead to sustainable supply chain management, companies have a lack of environmental concern, when establishing sustainable supply chain practices (Tipu & Fantasy, 2018).

### 3. Methodology

The research onion developed by Mark Saunders will be used as an illustrative tool to make sense of the methodological choices, and latter for data collections and analysis (Saunders et al., 2016). The purpose of the research onion is to highlight the various philosophies, approaches, strategies and time horizon to develop the techniques and procedures used for the data collection and analysis.

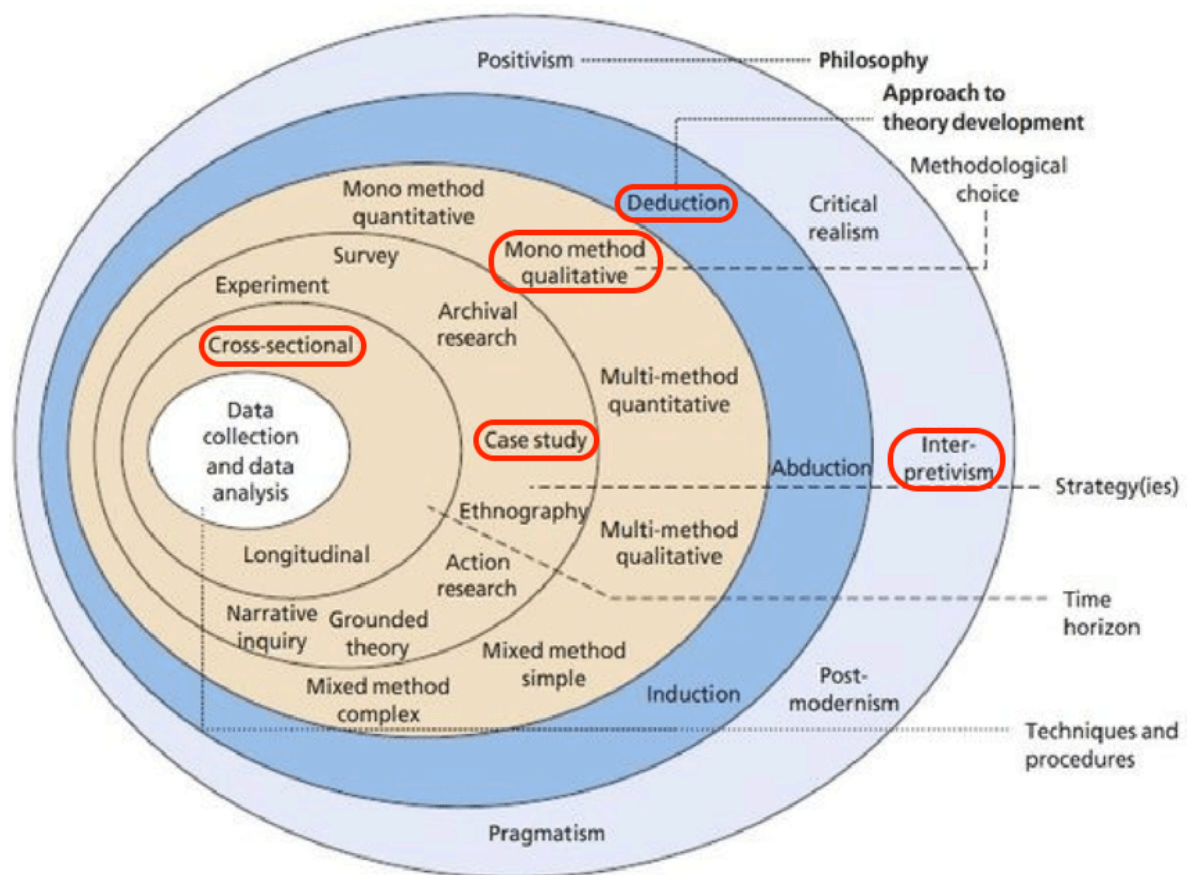


Figure 7 – The research onion

## 3.1 Research Philosophy and Approaches to Theory

### Development

The research is based on ontological assumptions and from a subjectivist perspective, meaning that it is rooted in the nominal nature of a socially constructed reality, where organizations are flowing and managing it chaotic rather than orderly. This is based on the fact that the ontological assumption is subjective. It incorporates assumptions of arts and humanities, assuming that social reality are made from perceptions and consequent actions designed by people (social actors) (Saunders et al., 2016). This is applicable to understand the reality of businesses, since perspectives and definitions are socially constructed terms.

#### 3.1.1 Research paradigm

The research paradigm is within the radical change perspective, and concerned with need for conflicts and domination of societies and behaviors. An underlying cohesiveness and unity of overturning existing societal systems and structures are assumed. This suggests how organizational affairs are improved within the frameworks of how things are ordinarily operated. Rather than searching for ways to eliminate resistance, different ontological assumptions imply that a focus on how to change resistance is exploited to benefit organizations (Thomas & Hardy, 2011).

Research is done precisely to fundamentally challenge the way things are done in organizations, which offers insights to help change organizational and social worlds. Such research is visionary and concerned with the possibilities and alternatives to currently accepted positions (Burrell & Morgan, 1979). A radical humanist paradigm means to challenge overall

cohesiveness, which is guided by a critical perspective. Subjectivist and radical change dimensions are located in the four paradigms for organizational analysis developed from Burrell and Morgan's book *Social Paradigms and Organizational Analysis* in 1982. The radical dimension adopts a critical perspective on organizational life, with an emphasis on political nature (Kelemen & Rumens, 2011). Working within the paradigm concerns the change of status quo, as the radical structuralism focuses on issues of power and politics, domination and oppression. However, these issues are approached from a subjectivist ontological assumption as previously mentioned. This leads to an emphasis on the importance of social construction, language, processes, and instability of structure and meaning in organizational realities. Similar to the processes and instabilities of SCM structures commonly adopted in organizational realities.

### 3.1.2 Research approach

The research is using a deductive research approach to theory development, meaning that the research is based on existing theory of academic literature and deriving a research strategy from this to test or challenge that theory (Saunders et al., 2016). In this case, the specific theory is that of traditional supply chain management and entrepreneurship. The purpose of the data collection is to evaluate propositions based on the specific theory through semi-structured interviews with startups/entrepreneurs. The testable proposition derived from the research is whether or not sustainable traits are present, and how entrepreneurial thinking influences a traditionally designed supply chain management system. Moreover, discover how sustainability is incorporated within the development of startups and how it is evident.

### 3.2 The Research Design

After discussing the first two layers of the research onion, the more methodological choices have to be outlined, which concerns the data collection process. The use of method for the research design is a mono method qualitative study, which means that a single data collection technique is used, since the theory will be outlined using semi-structured interviews as a data source.

The research philosophy of qualitative research is concerned with an interpretive philosophy (Denzin, Norman K, Lincoln, 2011). Researchers needs to make sense of subjective and socially constructed meanings, which is expressed by the phenomenon being studied. It is essential to make sense of the meanings associated with sustainability connected to SCM and entrepreneurship based on the literature review. This research is naturalistic, since operating within a natural setting or context is needed, in order to establish meaning and an in-depth understanding. The data collection is non-standardized, referring to the fact that questions and procedures alter and emerge during the research process, which is both naturalistic and interactive. The success criterion of the data collection is, therefore, dependent on gaining access to participants, whilst building an affiliation and demonstrating sensitivity to access to necessary data information (Saunders et al., 2016).

The research is an exploratory case study, which focuses on asking open questions, discovering situations and gaining insights about the specific topic of entrepreneurship in SCM. This is useful to gain a clear understanding of the issues or phenomenon with the origin of an unclear nature. Conducting exploratory studies include searching literature and managing in-depth individual interviews. These interviews are semi-structured, and rely on the participants' input, which will ultimately steer the output of the research.

### 3.2.1 Research strategy

A research strategy is necessary to outline the plan of how the research questions should be answered, because it is considered the methodological link between philosophy and choice of methods to collect and analyze the data (Denzin, Norman K, Lincoln, 2011). Moreover, this is the forth layer of the research onion. The methodological approach used to conduct research strategically is through a case study, which focuses on understanding the dynamics of how startups are realizing SCM and entrepreneurship to become sustainable. The case study is, thereby, advocated in the early stage of the research as a supplement to deductive theory, by elaborating on existing theory and building it up. Using case study generates insights from semi-structured interviews into the study of real-life context, leading to rich, empirical descriptions, and the development of theory and themes (Dubois & Gadde, 2002; Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Case studies are not only used for exploratory purposes, but also for descriptive and explanatory purposes, which tends to a deductive approach, taking theoretical propositions to test the applicability in the case, in order to build or verify explanations. This study is a single case study, which is selected and divided into groups purposefully, as it provides an opportunity to observe and analyze specific startups within a business setting (Yin, 2014). The case study is a cross-sectional research, since it involves a particular phenomenon at a particular time. This is due to the fact that the research is time and location-constrained.

### 3.2.2 Validity and reliability

Attending to the validity and reliability of the study, it implies that the qualitative research will not be able to be replicated, since it reflects the

socially constructed interpretations of participants at the time it is conducted. However, in order to validate the research data, a verification process needs to be implemented.

Participant validation will be used to let the participants ethically be in charge of the interview, and decide on whether or not they allow for their statements to be used in the study. It allows them to confirm the use and disuse of data and full usability of it to validate the data. The participants will, therefore, be asked to give informed consent in the shape of a verbal consent form before starting the interview (based on appendix 2), which will state the purposed data collection method (recordings). This assures that the person involved gives consent freely, based on full information about participation rights and use of data (Saunders et al., 2016).

When selecting the sample for this case study from the full set of samples that are fit within this particular category, in this case different groups of startups, located in a business environment. The population that will be sampled is all startups at CSE, consisting of 686 startups (CSE - Home page, 2020). The sample size will consist of six participants, which according to Saunders is the minimum size to gain a good representation of data points to conclude from, when conducting semi-structured interviews. The sampling technique used is purposive sampling, which allows for selecting participants that are correlating with the themes and theories that are studied, in this case sustainable or non-sustainable oriented startups. This technique is also referred to as convenience sampling or availability sampling, as the interviews were relying on the participants' availability.

### 3.3 Primary Data

#### 3.3.1 Semi-structured interviews

The purpose of collecting data from semi-structured interviews is to gather valid and reliable data, relevant to the research question and objective. With a subjective approach towards the interviews, the study links to interpretations of the social world, which are socially constructed. Meaning that the social construct is co-produced by the participant and the interviewer, who only responds to the views of the participant and interprets the data during the analysis (Atkinson et al., 2012; Denzin, 2001). Semi-structured interviews are non-standardized, where the researcher has a list of themes and a few key questions, however, with some variation from each interview (appendix 3). This means that the order of the questions may vary depending on the flow, while additional questions are asked to fully explore the response from a participant in the given situation. The data will be collected using audio recording equipment primarily to elevate the accountability of everyone involved in the interview.

##### *3.3.3.1 Data collection and interpretation*

Using semi-structured interviews do not follow a specific system of standardized techniques, but it allows the interviewer to deviate from the script and ask additional questions. With this sort of flexibility the analysis becomes more difficult and time-consuming, than that of structured interview responses. For exploratory and formularized research studies, it is a central technique for collecting information (Veal, 2017). In order to understanding how sustainable entrepreneurship and SCM are characterized within startups, semi-structured interviews can potentially provide a more desirable outcome by allowing ideas and thoughts of each individual to be more flexible. While

the majority of the interviews with the sustainably oriented startups are expected to provide a deeper insight into the topic of sustainability, some might also provide valuable insights towards understanding entrepreneurship in a sustainable manner. Interpreting the data according to the themes derived from the literature review is valuable to understanding how startups incorporate these principles into their systems. However, new terms might arise, which help to better pinpoint the essence of the research question. As a consequence of COVID-19, face-to-face interviews were restricted, and the interviews were therefore either conducted through online platforms, such as, Skype, Zoom or through the telephone, which, disabled the advance of a “natural” interview encounter. However, conducting online interviews tends to offer more nuanced and critically reflective responses and saves time for both parties, despite removing the physical connectivity (Irvine et al., 2013).

#### *3.3.3.2 Purpose*

When deciding on using semi-structured interviews as a data collection method, the advantage of it is linked to the purpose of the research, the nature of data collection questions, the length of time required and the completeness of the process. The structure of the interviews provides an opportunity to probe answers, where interviewees are asked to explain in depth or build on their responses. The interviewees may use words and ideas in a particular way, which allows for an opportunity to probe those meanings and add significant depth to the data obtained. The idea for this research is to allow for the interviewees to explore and explain their understanding of the terms and concepts investigated, such as, sustainable entrepreneurship, SSCM, and systems theory, in order to see whether there is a correlation between the analysis of the participants’ perception of those concepts.

Moreover, participants may also lead the discussion into areas not previously considered, which are significant for an understanding that can help address or formulate the research question and objectives. This is also an opportunity to think aloud about these concepts, collect rich and detailed data, and interact with interviewees to formulate conversations that will impact the data collected.

#### *3.3.3.3 Data quality concerns*

The data quality issue of using semi-structured interview is related to biases concerning reliability/dependability, such as interviewer, interviewee or participation bias. Interviewer bias is in regards to the interviewer's approach in asking questions and attempting to gather data specific to cater the needs of the study. Whereas, interviewee bias is related to the perception the interviewee have of the interviewer and certain themes or topics that are hard to discuss for the interviewee, which only provides a partial picture of the actual situation discussed. Participation bias is the result of a reduction in willingness to take part due to the time invested or cultural differences, which bias the sample population investigated. However, overcoming some of these biases depends on how the interviews are prepared and conducted (Saunders et al., 2016).

#### *3.3.3.4 Preparation*

In order to best prepare for these types of interviews, it is crucial to plan precisely how to demonstrate competencies and credibility, in order to obtain confidence of the interviewees. The best way to achieve this is by expressing confidence through knowledge and developing themes, supplying information to interviewees before the interview, as well as, time

management and appropriateness of the intended interview. Presenting knowledge regarding the people or organization interviewed and the topic through literature and reports displays professionalism, knowledge and engagement towards the topic. It is possible to promote validity and reliability, by informing interviewees about the information in form of themes before the interview, in order to let them prepare mentally and take notes if necessary.

The types of questions are essential in formulating factual questions that avoid emotional language, which will be asked through both open questions and probing questions. This allows the participants to define and describe a situation or their idea themselves, and further dig into answers that are interesting or relevant to the research question by probing a specific theme, which will be transferred into nodes. Moreover, the nature and behavior of the interviewer is important to the outcome of the interview, as well as, demonstrating listening skills, and summarizing points to clarify.

### 3.4 Secondary data

The purpose of using secondary data is to identify the usage and suitability of previously applied knowledge and skills regarding startups in Denmark, to further develop an understanding of the research question. This is to assess the entrepreneurial environment, which will be done using secondary data sources, and includes both raw and published summaries that can be applied to provide additional knowledge, interpretations and conclusions. The advantages of collecting secondary data to support the research question are that fewer resources are needed, it is unobtrusive, and it provides comparative and contextual data points, and displays perpetuity of the data. However, secondary data may also be unsuitable, provide less control over data quality, and affect how the data is presented. It is important to use

secondary data to strengthen the primary data collected, by applying it to a general sense of the population of entrepreneurs studied in Denmark, henceforth, increasing the validity and reliability of the overall data (Saunders et al., 2016).

### **3.4.1 Literature review**

The literature is an essential part of understanding the research objective, as the research is on terms frequently used, which were generated using previous knowledge on these terms. Hence, using secondary sources such as articles, books, reports, research papers and other types of literature to highlight the importance of incorporating sustainability into existing sources of data is eminent.

### **3.4.2 Quantitative Measures**

The quantitative data is collected from secondary data sources, based on reports, surveys and analysis from third parties, such as DanishStatistics.dk and GEDI. The majority of the data is provided from institutions, website or directly from online sources. Statistical measures are not up-to-date, but still provide a deeper understanding of how entrepreneurship is within Denmark and outside. Quantitative measures are not essential to achieve a deepened understanding of the research question, however, the data provides a larger sense of the issue, whereas, the qualitative data from the interviews is more essential to answer the research question.

### 3.5 Data and analysis

#### 3.5.1 Analyzing qualitative data

Qualitative research is often associated with an interpretivist philosophy. This is no different, since as a researcher it is necessary to make sense of subjective and socially constructed meanings expressed by the participants. Social constructionism indicates that shared meanings and realities depend on people's interpretation of the events occurring around them. Hence, qualitative data is likely to be more varied, elastic and complex than quantitative data. The analysis and developed understanding of the data, needs to be sensitive to certain characteristics in order to be meaningful.

The research was, therefore, approached with no pre-formed notions, and aimed at uncovering emerging patterns, as well as, contradictions through coding and close examinations of data gathered from the interviews. The reason for conducting in-depth interviews was based on the fact that the 6 participants were likely to vary in their responses, but also in complex ways, since each interview had a unique story of its own. The interviews were all conducted virtually, either over Skype on a video-call, over Facebook or as a standard phone call. Thereafter they were transcribed to make sense of the outcome and coded for analytical purposes to scan the inputs from the interviews (Veal, 2011). Many techniques for qualitative analysis involve summarizing some parts of the data to condense them, code and categorize data to group them accordingly to themes.

#### 3.5.2 Thematic Analysis

Thematic analysis is a “foundational method for qualitative analysis”, which offers a systematic flexible and accessible approach with an aim of searching for themes and patterns that occur across the data sets (Braun & Clarke, 2012).

This involves coding the data to identify emerging themes and patterns for a further analysis related to the topic of sustainable SCM and entrepreneurship investigated within startups. Thematic analysis is used to comprehend the amounts of qualitative data, identify, develop or test themes, nodes and theories to draw and verify conclusions.

The analysis method is not tied to a specific type of philosophical perspective, meaning that it is irrelevant whether I have adopted an objectivist, subjectivist, and deductive or inductive approach. I will use thematic analysis from an interpretivist perspective, in order to explore interpretations of the phenomenon defined in the literature review, such as sustainable entrepreneurship and SCM. The procedures provide guidelines when using thematic analysis, which involves familiarity with the data, coding it, searching for reoccurring themes and testing propositions. Familiarizing with the data is prepared through the production of transcripts, whilst looking for the recurring themes and potential patterns. The transcripts are produced shortly after each interview, which is about 2-3 days, in order to best develop an understanding of each interview and what it entails.

#### *3.5.2.1 Coding*

Coding is used to categorize the data into similar meanings, which involves labeling units of data within a data item with a code that symbolizes the meaning of such. The interviews are divided into 6 sections, general/informative, startups, entrepreneurship, systems theory, supply chain management, and sustainability. These sections act as a pre-code to the interview questions and answers, in the sense that the participants are guided towards certain themes already, based on the order and nature of the questions (see appendix 3). This helps with further coding, as it manages the

data to rearrange and retrieve relevant codes, which is an important element to the analytical part. The codes were iterative and derived from existing theory and literature “a priori” codes, together with terms used by participants recorded from the interviews “in vivo” codes, hence, combining theory and data driven codes. There are a total of 30 codes generated from the interviews.

### *3.5.2.2 Themes*

The search for themes and recognizing relationships should always be rooted in the essence of the research question, meaning that it should relate to the pursuit of answering: *How sustainability is incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically startups at CSE (Copenhagen School of Entrepreneurship)?* The themes are refined and tested throughout the coding process, since combining and merging certain themes help to define the outcome of such. The codes are generated using a software program, in order to quickly and efficiently develop the themes and categorize them in an orderly manner.

### *3.5.2.3 Further analysis of primary qualitative data approach*

The approach for analyzing the qualitative data is coding the interviews, using the software NVivo 12. The coding program is based on a technique, which focuses on using preconceived categories, in order to increase the possibility of matching previously derived topics from the literature review. The coding process consists of two phases: initial- and focused coding. During the first step of coding, different themes are identified in the interviews. Moreover, the focused coding uses the most reoccurring and

convenient codes based on the themes previously derived. Afterwards, codes are compared, categorized and further analyzed (Veal, 2017).

The codes are grouped into themes and aligned to follow the conceptual framework, which is based on the literature review. Other emerging codes are grouped into sub-themes, based on their main theme. Underneath is an example that is generated from a code category in NVivo, together with the definition of the codes.

Theme Names	Definition and # of sections for each theme		References
<i>Entrepreneurship</i>	Entrepreneurship is about envisioning the participants' mindset in terms of differentiation and defining startups.	6	51
<i>Supply Chain Management</i>	The supply chain management section is mainly focused on the suppliers, but also the creation of customer value.	6	49
<i>Systems</i>	The systems section contains information about the startups' organizational structures, communication and employees.	6	34
<i>Sustainability</i>	Sustainability includes interview topics on environmental impacts, SDG associations and various sustainability perceptions from the participants.	12	93

*Table 1 – Codebook for the main themes*

### 3.5.2.4 Organization of analysis based on primary qualitative data

The topics/sections are divided into sub-sections, in order to determine which category goes where, and highlighted based on the themed interview questions. The codes are color-coded to exemplify the relation of the codes to the questions in the themed interview questions (appendix 3). This is to provide cohesiveness with the analysis and questions asked during the interview. The analysis will follow the thematic codes generated from the interviews based on the conceptual framework, to demonstrate the inclusion and prominence of sustainability within startups at CSE.

5.3 Entrepreneurship	
5.3.1.1 Startup meaning	5.3.1.1 Startup time
5.3.1.1 Entrepreneurship meaning	5.3.1.1 Entrepreneurship Yes/no
5.3.1.1 Differentiation from competitors	5.3.1.1 Identifying competitors
5.4 Supply Chain Management	
5.4.1.1 Customer value	5.4.1.1 Coping with future challenges
5.4.1.1 Suppliers	5.4.1.1 Supply chain transparency
5.4.1.1 Supply chain changes	5.4.1.1 Supply chain determination
5.5 Systems	
5.5.1.1 Customer interaction	5.5.1.1 Internal communication
5.5.1.1 Communication tools	5.5.1.1 Organizational structure
5.5.1.1 Employee differentiation	5.5.1.1 Employee motivation
5.6 Sustainability	
5.6.1.1 SDG association	5.6.1.1 SDG further addition
5.6.1.1 Exaggeration	5.6.1.1 Environmental impact
5.6.1.1 Sustainability wants	5.6.1.1 Sustainability certifications
5.6.1.1 Sustainable challenge	5.6.1.1 Sustainable entrepreneurship
5.6.1.1 Sustainability collaboration	5.6.1.1 Sustainability self-awareness
5.6.1.1 Sustainability misinformation	5.6.1.1 Sustainability variation
4.1 & 4.2 General	
4.1 & 4.2 Function of firm	4.1 & 4.2 Seeking for help

Table 2 – Thematic codes with color-coding generated from the interview questions and sectioned based on chapter in the analysis and methods section

The way the thematic analysis is organized is by categorizing codes into themes that connects the codes, hence, the codes are placed under 4 sections as seen above. This consists firstly of an entrepreneurial mindset, such as aspirations and associations with entrepreneurship and being a startup and what this means. Secondly, the sustainable supply chain management for analyzing supplies chains, creating value and handling with future challenges. Thirdly, systems are about the use of communication channels and organizational structures and its correlation to the creation of sustainable startups. Lastly, the sustainability of the startups will be explored, concerning SDG association and exaggerations on environmental impacts. This helps to inform of the participants' perception on relevant and recently developed topics in relation to entrepreneurship and modern business creation.

### 3.6 Limitations of methodology

Limitations are of course present within the methodology, but apart from the COVID-19 virus mentioned earlier, which is spreading and disallowing for the interviews to be conducted face-to-face. Deakin & Wakefield, (2014) argues that synchronous online interviewing is a useful supplement or even replacement to face-to-face interviews.

Limitations are also occurring for the qualitative data gathering, because the outcome can be interpreted and coded based on personal experience and knowledge of the particular participant, which influences the analysis of the data gathered (Bowen, 2009). There is no result verification in qualitative research, meaning that the results cannot be objectively verified from the answers stated by the participants. This makes it hard to validate the research, due to the different conclusions based on a similar set of information (Maxwell, 2005). To avoid any flaws in word judgments and translation

inaccuracies, the interviews were conducted in English, even though participants and interviewer were generally Danish.

The sample size of reaching out to 24 startups at CSE could have been elaborated, if time was not a limited resource or a larger group of startups was available at CSE. However, to be able to develop a case study for startups in a business environment, CSE acts as a great organization to investigate due to the members having a recent business education or association with Copenhagen Business School.

Quantitative data is gathered as secondary source, where the data sources and statistics are without any control, since the data is from third parties. The data sources are, however, trusted sources of information within ethical and legal measures from the Danish government and private institutions.

#### **4. Case study CSE (Copenhagen School of Entrepreneurship)**

The population that sampled is a handful of all the startups at CSE, consisting of 686 startups. *“CSE is an entrepreneurial organization with student incubator programmes, accelerator/growth programmes, entrepreneurial events and workshops rooted at Copenhagen Business School.”* (CSE - About us, 2020). They welcome all industries and have “business” as a focus, with a wish to develop skills and young professionals that can build sustainable and viable businesses in society. Moreover, new startups are more likely to be created in the capital region of Copenhagen, where 7.400 companies have been created in 2017, which almost matches the 7.700 created in 2007 (appendix 4). Notwithstanding, the overall number of startups is not nearly as high as before the crisis (Egedesø et al., 2018). At CSE, a key objective is to develop an entrepreneurial culture, where entrepreneurs and startups vary from different universities, countries and professional backgrounds, which can utilize a

diverse environment where ideas can become successful and sustainable businesses. (CSE - Home page, 2020).

For the purpose of analyzing the existing literature in regards to this case, the startups have been divided into two categories, where three of the startups have a heavy focus on sustainability, and three startups do not have a concrete relationship with sustainability. This is in order to investigate the core of the research question, which is to investigate *how sustainability is incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically startups at CSE*. In order to answer this question, the intention is to look into collective themes generated from the interviews and combining it with the literature, to see the correlation and differentiation, and determine how sustainability is immersed into the culture of CSE. Generating two separate groups eliminates an overall generalization of the case study, and justifies the startups individually by emphasizing different approaches towards incorporating sustainability. This is also to challenge a very business-oriented incubator as CSE, since it is interesting to observe to what extend these startups identify and express sustainable traits.

The lists below acted as a guide to prepare for the interviews, which includes the name of the participant and company, their title in the company and a personal description of the participant and the company.

#### **4.1 Startups with a core focus on sustainability (SOS)**

This part is focusing on defining companies that are representing sustainably oriented startups (SOS), which in this case are startups that have sustainability at the core of their business. This means that the startups are qualified to be within this category, since they are supplying customers with sustainable options in terms of their products or services. The interviews are

all with the founder of each startup, who strongly identifies with sustainability at their core mission and vision for the firm. These startups will further on be referred to as “SOS1, SOS2, and SOS3”.

Interview list		
#	Participant and startup name incl. description of the startup	Title of participant and personal profile from own website
S		CEO
O		(Anonymous)
S	Printing site and service that promotes a company brand through sustainable products	An entrepreneurial spirit, with good business skills, knowledgeable and adaptable.
1		
S	Sara Holt	CEO
O	<i>Make it Good Again</i>	
S	Company that lets repair businesses help to repair people's things, instead of throwing them out and purchasing new things	Sara is administrative mastermind. Despite being in control, she is also awesome at board games
2		
S	Oskar Dahl Hansen	COO & Founder
O	<i>RenSti</i>	
S	Calculates CO2 spending based on parameters and compares it to the average. Then suggests a way to either outweigh or replace this amount of CO2 through various projects	Innovative soul, who has been part of shaping the project from the start, and has done a great amount of the starting work to make RenSti succeed and become what it, is today.
3		

*Table 3 – Description of participants and sustainably oriented startups*

The abovementioned interviews (appendix 5-7) are all transcribed and coded into sections, by using nodes to theme their personal perspectives on the questions for the pre-coded themes (appendix 3). The startups chosen for this section have a clear image in mind of creating a business that is considered an “impact startup”, where sustainability plays a key role in the mission and vision for the future of the business.

## 4.2 Startups without a core focus on sustainability (NSOS)

These companies are representing non-sustainably oriented startups (NSOS), which in this case are startups that do not necessarily have a direct relation to sustainability at the core of their business. This means that the startups are qualified to be within this category if their business is not focusing on any sustainable actions, or do not have any specific relations to being sustainable on any parameters. The interviews are all with the CEO of the startup and span from a marketing company to a museum database development to an employee and student-assisting platform, and will be referred to as “NSOS 1, NSOS 2, and NSOS 3”.

Interview list		
#	Participant and startup name incl. description of the startup	Title of participant and personal profile from own website
NSOS 1	Rasmus Nikolaj Doolengs	CEO admin. Director
	<i>Groviac IVS</i>	
	Our mission is to create a new digital marketing-tool, with a vision to offer the best form of marketing via mobile ads on the market	Rasmus (CEO) is adm. Director and has experience within visual marketing
NSOS 2	Johannes Dolle	CEO
	<i>Plartform</i>	
	Plartform is an online database showing inventory lists of museum collections & privates and their availability for exchange or loan. Plartform grants access to internationally un-exhibited pieces	Johannes in doing his masters degree in Strategic Design and Entrepreneurship from CBS & KADK and has shaped this startup with his fellow student Paul Jaeggi from the same study programme.
NSOS 3	Levi Yosef	CEO
	<i>Leaty</i>	
	Leaty is a data-& strategy driven Enterprise Collaboration platform that empowers Employees to self-organize and facilitates eased	Levi had the opportunity to be direct neighbors in the same office. His personality has always been on point, which has allowed us to

	innovation implementation along with the company's strategy.	work together both directly and indirectly. His discipline and work morale has always been professional.
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*Table 4 – Description of participants and non-sustainably oriented startups*

The startups that are without a focus on sustainable is not to say that sustainability is not present within the firm, however, it is to point out the underlying focus of the startup and seeing how and to what extend this and other terms are incorporated or not incorporated into the business's mission, vision and values.

The interviews (appendix 8-10) are all transcribed and coded into various sections, by using nodes to theme their personal perspectives on the questions for the pre-coded themes (appendix 3). The idea of using these companies is to figure out how the relationship is between startups that are focusing on technology or other aspects apart from sustainability specifically. This is in order to seek out those startups to understand if and to what degree they are filtrated with sustainable entrepreneurial mindsets.

The purpose of these two separate groups of startups within the same sample space is to see the difference between their types of ideas and, based on what has been researched in the literature, such as themes developed from *entrepreneurship, supply chain management, systems and sustainability*. This is to highlight the importance of these terms, and how they are interlinked or present throughout different types of business structures and focuses.

A brief description for each company was added before the interview took place, and afterwards confirmed by the participants, before deciding on which startup went into each category. These descriptions included sustainable aspects, such as measuring sustainability in RenSti, to repairing used products at MakeItGoodAgain, and providing alternative and more

sustainable marketing products within interview with SOS 1. These are pre-conceived notions about the startups, and interpreted by the interviewer, however, these notions were confirmed by the participants before separating the startups into categories. It is expected that there will be differences and similarities between the startups. The grouping of them is to form two aspects at each end of the spectrum (see conceptual framework), and avoid concluding that the startups focusing on sustainability are more sustainable, but instead adequately explore the depths of the literature and determine what and how to elaborate on it through the use of investigating all of the startups similarly.

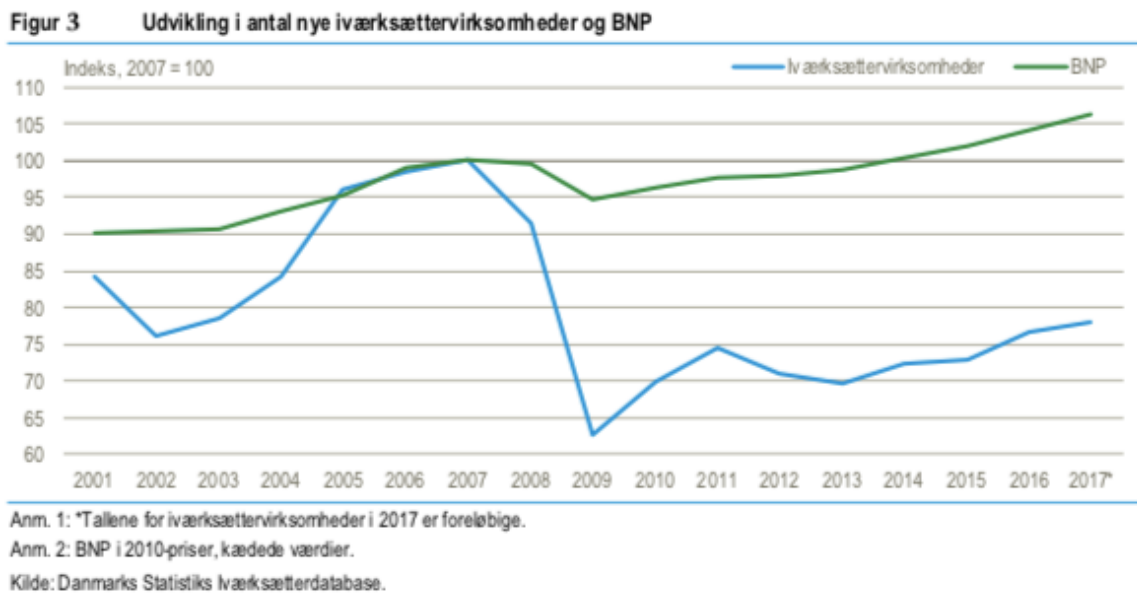
## 5. Analysis and Discussion

The following analysis section will examine the data collected from the semi-structured interviews with startups at CSE, and the data will be analyzed using the thematic analysis approach. The construction of this analysis is based on the structure of the conceptual framework presented in the literature section (figure 3) and organized after the table in the methods section (table 2).

### 5.1 Startups in Denmark

In order to lay the groundwork for how and why sustainability is incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically at CSE, it is critical to adapt a wider lens and look at how startups have been developing and are currently doing in Denmark. In 2017, Denmark had 19.200 new startups, which is significantly under the amount in 2007, where more than 24.600 companies were created, based on Danish Statistical analysis (Egedesø et al., 2018).

Entrepreneurship is an important part of growth and innovation for businesses, but after the financial crisis in 2008, the number of startups has not returned to that of 2007, despite an increase in the overall economy. Moreover, the startups that are focusing on “information, communication and knowledge-sharing services” are well over that in 2007. Even though the Gross Domestic Product (BNP) has increased above the level in 2007 before the crisis, startups have not been able to reach the same amount of recovery (Egedesø et al., 2018), where the blue curve indicates the amount of startups and the green curve represents the GDP (see figure 8).



**Figure 8 – Development in number of startups & the level of GDP (BNP)**

Despite this, Danish startups pave the way to a sustainable growth, which is currently a common buzzword in Denmark. However, Denmark has to reach a different level, if they want to maintain the foremost position on green leadership in the future. FN's SDGs created global growth, which will predictively reach about 7-12 trillion USD worldwide and 60 billion USD for Denmark (Dalberg, 2019). If Danish businesses are to seize a share of this market opportunity, then it takes huge investments multiple companies with sustainability at the core of their business.

There are just about 650 "impact startups" in the north, according to numbers from Danske Bank, where an "impact startup" is defined as a startup that is creating social and/or environmental changes, whilst running a sustainable business. There are three main SDGs that are consistent in the Nordic countries, number 3 concerning good health and wellbeing, number 7 concerning affordable and clean energy, and number 12 concerning responsible consumption and production. It is especially number 12 that Danish startups are specializing in, based on the 17 SDGs (see appendix 11). FN predicts that it takes between 5-7.000 billion USD a year to reach the goals

for sustainable development in 2030, which is approximately 10% of the global GDP. At the moment in 2019, public and private sources are only investing about 1.400 billion USD a year. Thus, the impact startups of tomorrow are going to be businesses that manage to find a scalable solution for the larger issues the world is currently facing. Large issues also means greater opportunities, where startups, innovators, and brave visionaries are paving the way for reaching these untapped potentials (Saxberg, 2019). This is why more startups are needed in Denmark, due to the unexploited potential of generating sustainable growth. However, are Danish startups living up to these new standards and incorporating sustainable actions and patterns for future growth? Or are they only focused on generating personal growth and using outdated methods to construct their enterprises? These is what the thematic analysis will highlight by challenging the current literature, and henceforth, develop unforeseen patterns based on the latest startups operating within the Danish environment, specifically at CSE.

## 5.2 Thematic Analysis

After pointing out the importance and potential of sustainable startups in the Danish environment, the use of thematic analysis is used to analyze qualitative data, which is generated from the transcribed interviews (appendix 5-10). The notion is that the data will present differences and similarities between sustainability oriented and non-sustainability oriented startups, as the data is based on conceptual framework (figure 3). This will be visible through investigating prospects of entrepreneurship, supply chain management, and systems to grasp how sustainable startups at CSE are, in terms of incorporating and adapting sustainable practices over standardized methods. This section is divided into three sections for each of the two

categorized businesses, which involves *entrepreneurship*, *supply chain management* and *systems*. The analysis will be a two-fold analysis and lastly a comparative analysis of both business orientations to determine, whether or not, supply chains and systems with a modern entrepreneurial mindset at CSE generates business visions that have an impact on a sustainable future.

The analysis is exploring aspects and considerations a startup may have with the regards to being sustainable, which is defined as, “the creation of an entirely new enterprise, which focuses on shifting previous business practices that compromises future generations” (WCED, 1987, p. 8). Sustainability is considered many things, however, most importantly focusing on the future generations’ prosperity and challenges, in order to meet their needs in a way that creates value. Thus, having an impact on future business development from the perspective of newly started businesses, as these startups will define the focus of future business systems. Terms such as sustainability and SDGs from an entrepreneurial perspective are essential to determine how, and to what extend they are incorporated into the structure of business startups.

The literature review encapsulates the themes related to understanding how concepts of entrepreneurship and supply chain management have been identified, but also how they have developed and evolved into aspects revolving around sustainability. The fact that these business concepts develop constantly highlights the nature of applying modern thinking with existing theories. The concepts mentioned in the literature review are all relevant towards developing an understanding of what is integrated into a startup today, but also relevant to grasp how a startup is evolving through its use of systems and SCM.

The two categories of firms are sustainably oriented startups (SOS) and non-sustainably oriented startups (NSOS), which mean that the perspective and

focus of the startup will determine how these two types of startups vary from defining and involving the concepts. To best identify these differences and similarities, the analysis will include definitions of entrepreneurship and being a startup from both orientations (SOS and NSOS). The interviewees are asked to define what being a startup means and how they identify with entrepreneurship (Question 1-3, appendix 3), which will be further expanded on in the following section.

### 5.3 Entrepreneurship

Entrepreneurship is defined in various ways, but from the literature review it is defined as “the pursuit of opportunity beyond resources controlled” (Stevenson & Jarillo, 1990). Whereas, sustainable entrepreneurship is “a solution to, rather than a cause of environmental degradation” (York & Venkataraman, 2010). A startup itself is defined as “the creation of an entirely new enterprise which did not formerly exist as an organization” (Keeble, 1980). The reason for exploring these definitions again is to see how and to which extend startups are incorporating sustainability within entrepreneurship.

#### 5.3.1 Factors related to Entrepreneurship

For example, when asked what being a startup means, the startups that have sustainability at their core unsurprisingly identified more with sustainable entrepreneurship, rather than the definition of entrepreneurship itself. The meanings vary from startup to startup, as they identify differently with the terms startup and entrepreneurship.

However, when participants were asked, whether or not, they would categorize their business as being entrepreneurial, everybody answered “Yes” or “Definitely” (Interview 1, 2, 5, 6).

Identifying with entrepreneurship as a startup is in one way or another a rhetorical question, but it is interesting to point out the different traits and mindsets, in terms of applying entrepreneurship to their business (appendix 3, question 2, 3).

#### *5.3.1.1 Sustainable Entrepreneurship & Being a Startup*

The first findings are associated with entrepreneurial aspects and what being a startup means to the participants. The first interviewee said that, “A startup is an exciting challenge.” But also that “... it is interesting to be a startup in terms of this. Since you cannot change how the whole industry functions, but you can try to be the most sustainable.” (SOS 1).

Without referring to anything regarding the term “sustainable”, it was incorporated into this identification. The mindset of this entrepreneur and startup correlates with an *impact startup*, which was a startup that is creating social and/or environmental changes, whilst running a sustainable business. Similarly, SOS 3 acknowledged this definition as well; “...we started RenSti with the intentions of affecting the bigger picture and climate...”.

However, SOS 2 associated more with value creation and innovation rather than directly focusing on adopting sustainability into this association with being a startup:

“I do not think you can make a specific term for what a startup is. It is just somebody trying to create value. Not necessarily creating a new market, but bringing something new to the market. A startup, I think of them as being the innovators of the business world.” (SOS 2).

Sara, despite being part of a SOS, connects more with what Schumpeter definition of entrepreneurship in its early stages in 1934. He said that it involves spotting opportunities to drive the market, which causes “creative destruction” or a “shift”. These “creative destructions” are what innovates and changes or “shifts” the original way of doing business. This is similar to how NSOS are identifying their startups, which are generally more concerned with seeking opportunities, rather than adapting sustainable practices.

However, creating a shift or disturbance in the market by bringing in something new and innovative is easier said than done, but doing so involves creating or fixing a problem. This is the aspect uncovered from the NSOSs when talking about entrepreneurship and running a startup. For example, NSOS 1 mentioned that,

“It is very important as a startup that you are very open to new ideas, as you try to fix problems or at least create another possibility that wasn’t seen before.” ... “I think that whole sense of it is what defines us as entrepreneurial, is to innovate already existing ideas and have the spirit to make it happen.” (NSOS 1)

This definition has strong associations to Schumpeter’s definition, but NSOS 1 mentions that flexibility towards openness for new ideas and challenges is important for a startup, since it allows for the creation of innovative changes and opportunities. Rethinking, disrupting or disturbance of an existing industry is a key aspect of being entrepreneurial. Spinosa et. al (1995) argued that entrepreneurs must locate “disharmonies” and “anomalies” for a certain style, such as routines managing specific practices that are considered obsolete. Fixing problems in an existing market, rather than causing them addresses this, which is what sustainable entrepreneurship is also considered as. Since this definition links to creating “a solution to, rather than a cause of

environmental degradation” (York & Venkataraman, 2010). NSOS 3 further expands on this idea of solving problems through innovation,

“I understand entrepreneurship to mean creating a solution that solves a problem in a rather innovative way. So doing something different than competitors do, and try to improve the system behind it. This is what I am trying to do, so I would call that being entrepreneurial.” (NSOS 3)

Adapting and being flexible to certain circumstances, in order to gain the most out of a situation are strong attributes of being a startup and having an entrepreneurial mindset, as previously defined by SOS 2 and linked with the definition from Schumpeter. These identifications overlap and correspond to a lot of similarities, and since sustainable entrepreneurship should not be grounded in preconceived concept of sustainability, but rather disrupt a current understanding of sustainability. The definitions from NSOS 1 & 3 are both adapting a more sustainable definition of entrepreneurship than what they associate with, by creating solutions to the existing market through innovative approaches. They both address options such as improving systems and innovate ideas, by being open and creating opportunities. Interestingly NSOS 2 define being a startup as,

“... being a startup means to iterate, to start somewhere, which can be something completely different. Go with the flow and put in a lot of work and uncertainty and iterate, iterate, iterate.” (NSOS 2)

Being able to adapt, innovate and iterate in order to differentiate from the competition describes entrepreneurship very well, but also working with uncertainty. This has not been addressed in previous definitions of the terms

entrepreneurship or startups, but is considered as an essential when defining both terms today.

### 5.3.2 Findings – Entrepreneurship & Being a Startup

What is noteworthy is the distinct differentiation with the SOSs, since several of them incorporated sustainable value into the definition of what being a startup means (which was a rather general question). Whereas, some key aspects were reoccurring, for example, both groups pointed out that innovative actions needs to be present, whereas, a level of uncertainty is also involved and expected in the startups. This shows that even though these startups have different visions for their companies, a lot of similarities are still visible from their mindset, especially when discussing approaches of entrepreneurship.

Entrepreneurship is defined differently, both by scholars, but also by startups, which is evident in the abovementioned findings. However, not only does the definitions vary, the mindset of each entrepreneur varies. As pointed out by Spinoso et al. in 1995, “style is not an aspect of things, people, or activities, but rather, constitutes them as what they are.” This can be interpreted as individual people have individual mindsets and styles, which is reflected within their business. Even though all entrepreneurs are focusing on creating changes and unique styles within the business environment, the way in which they communicate about driving these changes is quite distinguishable. Is the term “sustainability” enough to distinguish them? Or how can these startups incorporate different entrepreneurial mindsets to craft a sustainable business? This hinders the determination of causes and consequences from an analytical viewpoint, or in attempting to identify the nature stages of the sustainable entrepreneurship process. What stood out the most about these identifications

and associations with these terms were reoccurring factors of being innovative, adaptive and iterative, when creating customer value and dealing with uncertain market opportunities. To fully disclose if the startups are not only associating, but also incorporating sustainable rationalities into their businesses, their supply chain has to be investigated as well.

## 5.4 Supply Chain Management

SCM is previously defined as a flow of materials, which is also considered as a system operating within the firm (Cooper & Ellram, 1993). Sustainable SCM or SSCM is similar, but with transparency of social, environmental and economic integrations to improve long-term performance of the company and the supply chain (Carter & Rogers, 2008). These delineations will help analyze the operating system of the startups. This is not necessarily about how sustainable their actions are in terms of the structure, but more about the approach for innovating and implementing SSCM and sustainable systems into their business. How is it supposed to be addressed when determining how sustainability is incorporated within supply chain management of startups at CSE? The following section will focus specifically on how these startups are generating value and dealing with future challenges through their supply chains and competitive advantages.

### 5.4.1 Factors Related to SCM

When the startups were asked how their enterprises generate value and secure a competitive advantage within the market, SOS and NSOS are aligned in their interpretation of these aspects. Direct relations to SSCM consist of a transparency, determinants and a progressive supply chain in a sustainable manner, which is ultimately controlled by the management.

Differentiation is also about managing entrepreneurial shifts, which is needed to tackle future challenges for startups, especially when competing with existing companies. Identifying competitors and creating value is, hence, a way to capture the essence of how supply chain can be understood as a key driver of innovative and sustainable actions (appendix 3, question 5).

#### *5.4.1.1 Competitive Differentiation, Value Creation and Transparency*

Identifying competitors is important to be able to compete and differentiate in the market for a startup, for example in interview 1 multiple competitors were recognized, "... there are direct competitors doing eco-friendly products and indirect competitors, with traditional promote products that are not eco-friendly." (SOS 1). Identifying the competitive market is about creating a competitive advantage, which is correlated to the customer value a firm creates, as it aims to establish a profitable and sustainable position against competitive forces (Porter, 1980). SOS 3 mention how some competitors scam customers, "There were a lot of places where you could calculate your footprint, but where you could donate arbitrarily 'if you donate 100 DKK you can lower your footprint.'" It is essential to be able to compete and compare with the competitive market as a startup, regardless of competitors using fraud to achieve a competitive edge, since this method will not be sustainable in the long run. Differentiating is an essential part of being entrepreneurial and competing, thus diversifying and creating a unique style or shift in existing markets. How startups are differentiating is similar to this,

"The thing that we do differently from the competition is to have a simplified narrow process and service, which is directly linked to our products through our website. ... we are a lot more transparent than any other distributors ... that is why we try to keep our supply chain short ... I focus almost exclusively on products that are made in

Europe ... I am also trying to compute the impact of our products vs. a traditional promotional item.” (SOS 1)

There are a lot of aspects involved with differentiation, when disturbing an existing market, and traceability is one of them. There is an increasing demand towards companies displaying transparency, traceability, and corporate responsibility for their supply chains. These are highlighted in the quote above, where traceability of materials, location of production and impact of products are ways of differentiating from competitors, who are selling similar products. This is also mentioned by NSOS 3, who said that, “Transparency is a key pillar and key values that we work with.” Displaying and working with transparency within the company creates customer value within the supply chain of the startups and is considered an indispensable part of SSCM. An interesting question here, would also be to investigate why we see a trend of transparency in the supply chain, and what drives this trend – perhaps the bad publicity of poorly managed supply chains (with subcontractors using child labor, harmful products and production methods etc.). As pointed out, a motive behind managing the supply chain system is to create a form of competitive advantage (Monczka et al., 2009). Identifying risks in a competitive market is also an important factor, expressed by SOS 2, “We are very much aware that it is easy to copy our concept for a bigger company. That is why we are focusing very much on getting private repairmen onto the platform. Those are the people able to repair special stuff, and they are not as easily accessible.” Distinguishing from competitive platforms is also about creating a network, which takes an entrepreneurial mindset to identify with. Moreover, identifying competitors and differentiating through uniqueness is one way, another way is to improve or think outside the box of what is traditionally seen on the market,

“... how we differentiate is that our product delivers a new kind of looking at how to market yourself in form of advertisements. The way we do this is we allow people to interact with the screen, since it is a person walking. This has not been seen before. ... Those interactions are always what convert best in terms of durability and remembrance. That is why we differentiate.” (NSOS 1)

Inventing new products or services creates unique customer interactions and experience, which is a great way to differentiate from competitors. However, creating unique experiences for customers is a way of harnessing personal and loyal customer relationships. SOS 3 further describes this as, “we are empowering individuals in the fight against climate change, by informing them about their carbon footprint and afterwards give them the opportunity to offset or remove their emissions. ... then we are creating value through the value of their money, by giving them a greater purpose.” Empowering and creating personal value for customers, through products or services is what creates attraction and it is an important part of being entrepreneurial, since it is a selling point for the startup.

“We tried to make the link very specifically and personally from your footprint and how you can donate. In that way we like to see ourselves as disrupting the market, because we are making carbon-credits and not quotas, for example.” (SOS 3)

This creates value for customers by providing them with a choice of a service, whilst keeping in mind the focus of the company, rather than disregarding sustainability. Entrepreneurship is all about disrupting the current market sustainably, which in this case is achieved by creating a unique customer experience, thereby, having a specific customer value. SOS 1 is direct about creating these customer values,

“The value that the customer’s get is of course reduced CO2 emission per product. Since the products have to be produced, customized and sent to the client. ... The overall added value is that we help companies reduce their CO2 imprints, but we also try to create awareness about new materials, and why we pick these products.” (SOS 1)

This value is not “visible” to the customers; however, it is a marketing tool that enables a lot of attraction for sustainably oriented customers to engage with the company. The value is created from a selection of alternative products and materials, than that of standard promotional items. Sustainable entrepreneurship is not considered as interconnectedness between environmental and economic values, but an openness that push common understandings of environmentally friendly and socially conscious styles (Johnsen et al., 2018). This is a distinct value and association observed from SOS 1, who not only creates an environmentally sustainable style, but also informs customers of it. This is also articulated by SOS 2, who describes that, “in the long run we really like to make it a trend, which would then be our long-term value that we create.” Providing an immediate value to customers is not always crucial to integrating sustainable entrepreneurial aspects into a startup. NSOS 3 tackles differentiation from a technical perspective and iterates that,

“We differentiate from other businesses through the data we are using, so at the end of the day we are developing an algorithm that understands which kind of tasks match your learning and which kind of tasks match your engagement style and profile. ... I use lean startup models, from the business model canvas (BMC) to customer value proposition (CVP), and I use CVP to map out the value proposition and the customer fit to the product that we have.” (NSOS 3)

Even though these models are well known and commonly used within the business world, none of them include sustainable aspects. However, in terms of mapping out value creation for customers, business models are useful for providing unforeseen information. There is a want and need to tackle future challenges by changing current business approaches, and taking small steps towards doing so, as mentioned by SOS 1, “I take small steps towards a greener supply chain, because I only accept suppliers that are in Europe.” When it comes to displaying sustainable traits and making future trends, it starts with the small steps, as mentioned by Mason-Jones & Towill in 1997, leading-edge companies have realized that the competition revolves around supply chain vs. supply chain, as oppose to company against company. However, a green supply chain is not enough to display sustainable actions, consumers want to feel pleased, have a clear conscious and ensure purchasing products are not causing harm to them or the environment through the entire supply chain (Roberts, 2003).

It is difficult to be on top of everything with a sustainable entrepreneurial mindset, since there are so many things that can be done differently. Making small adjustments to showcase and provide sustainable and innovative adjustments for businesses ultimately develops a greener future lead by “impact startups”.

#### **5.4.2 Findings – Competitive Differentiation, Value Creation and Transparency**

A coherent factor observed throughout the interviews, were the unnoticed connections to supply chain management, since the startups start to describe customers, value creation, competitiveness and differentiation by supplying products or services. These might be speculative descriptions of what these startups intend to do, however, pushing a common understanding of

sustainable practices through smart competitive strategies, in order to differentiate is the kind of entrepreneurial mindset needed to tackle future challenges for startups. Unique customer experiences, regardless of SOS or NSOS are what makes the startups stand out, hence, have a higher impact in the long run. And, a higher impact in the long run which is sustainable is, ultimately, what will be implemented by future business practitioners. The main indicators throughout 20 years of performance measurement in SSCM have been summarized as quality, speed, dependability, flexibility and cost (Gunasekaran et al., 2004). How do you assure that these characteristics are incorporated into the supply chain for a startup? It is problematic to include all of the characteristics, but quality, flexibility, transparency and costs are addressed for startups as SOS 1 and NSOS 3, who are the only startups working with products.

## 5.5 The Importance of Systems

A system is defined as processes used to provide feedback and interact with networks created within that system, such as communicative tools, interactions with customers and employees (Hester & Adams, 2017).

This section will uncover questions associated with the startups' processes and internal tools for communication, which is related to systems theory disclosed in the literature review. Asking the startups to describe their organizational structure is difficult, as the structure is most likely not defined at the early stage of a startup, however, it is essential to understand all the other systems such as SCM, in order to validate how the startups are integrating sustainability overall.

### 5.5.1 Factors Related to Systems

All the startups consist of a small amount of people, where divisions of work is evenly distributed, however, it is apparent that there must be 1 person in charge in order to make executive decisions. The question regarding organizational structure is specified in the interview, by asking how information and feedback is communicated. None of the companies had developed a specific method for collecting internal feedback, however, all the companies had a specific system to transfer information. Developing an understanding of the systems used within the startup provides insights into the structure and functionality of the company. These systems are important to analyze rather than ignore, as the size of the company does not determine its functionality or structure, but rather the approach for organizing internal and external systems related to supply chain and information management (appendix 3, question 4).

#### 5.5.1.1 Organizational Structures and Systems of Communication

The majority of SOSs are determining their organizational structure based on the size of the firm, as predicted. Since the startups are not large from the beginning, the structure is very flat and lean. For example, "Since I am the sole-founder, we are a very lean organization with what I try to do, with no big hierarchy." (SOS 1). SOS 2 reinforces this statement, "Since we are such a small startup it is very informal. We haven't really come to the creation of an organizational structure. It is, therefore, a bit random." However, according to Arnold and Wade in 2015, they argue that a systems approach is redefining the focus of how management could choose to operate. It is not a matter of volume but a question of defining a structure that is applicable to what the startup is trying to achieve. They additionally state that the organization as a

whole is observed as a living organism with a goal of describing and explaining how the organization works, since there are various ways of reaching a goal. Randomness and size of a startup is not the determinants for creating systems to certain forms of operations, since it should be considered as a living entity that needs constant development to strive towards reaching its goal. This definition of organizational systems is applicable to an operating and “living” startup, which is why a flat hierarchy is wishful thinking. This is pointed out by SOS 3, which is not justifying that the organizational structure is determined by the size of his company, but identifies a vision by adding that, “we are trying to make the organization as flat as possible.” Then elaborates that a flat organizational structure is not ideal or possible,

“It is ‘utopian’ to think that you can manage a team that is completely flat in the organizational structure. We have separated into consumer and business part, where I am primarily in the business part. We all have a say.” (SOS 3)

Adding that it is impossible to create a completely flat organizational structure for any firm, but that it is working due to the current state of the startup, rather than just identifying with a flat structure because nothing else has been set in stone. This is possible due to the added flexibility of being a startup, which SOS 3 explains; “There is a short span from idea to action. The business plan is not necessarily set, so all these things that should be done are not set in stone, however, this also makes us more flexible. So there are both pros and cons to it.” Gunasekaran et al. in 2004 mentioned that, the performance measurement in SSCM were quality, speed, dependability, flexibility and cost. By interpreting the organizational structure as flexible and adaptive but also fast through a short time span, relates to measures of a sustainable supply chain management, which is why all systems have to be examined for developing a full understanding of the structure.

When analyzing how communication is designed within systems of the startups, a lot of specific tools have been mentioned, but also methods for how and when to communicate, hence, the internal system used for communication. For SOS 1, "The way we try to communicate internally is through online tools, such as Slack and Trello, and storing our documents on GoogleDrive." Storing and sharing documents and assignments is by using online tools, however, what is noteworthy is the organizational purpose and motivation for the employees at the SOS, which is focused a lot on well-being and drive,

"I have a team of 5 people working with me on a voluntary basis, or interns. From all the people I have worked with, there are not 2 people from the same country, so I have had to learn multi-cultural management. ... I just want them to be interested in what they do, since nobody is paid at the moment. I believe this is where you find people that are good to work with, since we have a higher goal than just making profits." (SOS 1)

The idea of having a highly motivated staff is imperative for a startup, since it is also pointed out that it is rapid to go from ideation to creation in a flat hierarchy. Creating a strong bond amongst employees is difficult, but it also allows for more effort and determination from each employee. SOS 3 stated that, "We are very focused on being good friends in the company, of course this is not necessary, but we appreciate that we enjoy having long nights together, working in the weekends etc. Which is why we want as flat as possible of a structure." Hence, the organizational structure serves a purpose when the vision of the company is common, because a flat structure tends to create less tension in a company, where tasks are divided evenly amongst employees. Realizing a structure and setting goals is part of dividing tasks

and communicating internally, “We have a weekly meeting to discuss what we are doing this week. Then we have quarterly meetings where we discuss and set goals. We don’t have any rules on how to communicate.” (SOS 2). As pointed out by Hester & Adam in 2017, a system interacts through mutual feedback processes and interconnected subsystems, which means that one part of the system directly/indirectly effect the other parts of the system. Discussing goals and setting structures for internal communication systems is an essential part of reaching the full potential of the startup, but as mentioned, an organizational system only functions properly and “lives”, if the vision is aligned or controlled. What NSOS 2 has done is develop a fail-safe system to do so,

“We divided the work, so everybody has a contact person concerning clients or product development. Then one person is overlooking the whole operation, so I am in charge of keeping it together and strategy aligned.” (NSOS 2)

It is not necessary to have certain rules when communicating, but specific structures for when and how to do it creates a stronger common goal for the employees. Having a sustainable system within the startup is reflected through the transparency of the supply chain, as employees are communicating with suppliers differently. Having a clear and consolidated understanding of the position of the startup is crucial, since a disturbance sent downstream will ripple back throughout the system and increase the amplitude of disturbance, similar to that of a downstream supply chain disturbance (Fowler, 1999).

### 5.5.2 Findings – Organizational Structure and Systems of Communication

The significance of this section is that the organizational structures and informational management styles of the startups correlate to successful and sustainable functionality of the supply chain. Transparency and functionality of internal systems is, thereby, influencing the overall efficiency of the startup. Personal connections and coordination of individual tasks are what affects productivity, which is controlled by assigning responsibilities, as pointed out by SOS 1, 3 and NSOS 2. Hannan & Freeman states in 1977 that changes in organizational forms, structures, and processes tend to occur based on the evident changes in the external environment, which is similar to the behavior of supply chains having to adapt to ever-changing environments. Hence, stating that organizational forms and structures are equally important to implement in management styles, when creating sustainable supply chains.

External factors influences how internal structures for communication are developed, for example, the Covid-19 virus has forced all these startups to restrict physical meetings and use video communicative tools, such as Skype or Zoom to continue their daily operations. Structuring and adapting a supply chain to an ever-changing environment is possible through transparency internally, as well as, externally. According to Krause et al. 2009, “a company is no more sustainable than its supply chain”. This phrase suggests that all sustainable arrangements a company is creating, translates back to how it is organized structurally for external systems (supply chain), but also internal systems (communication and organizational structure), since they are interlinked and both response to the external environment.

## 5.6 Sustainable Associations and Implementations

Creating responsive and adaptable systems as a risk factor converts to the development of sustainable system creations. But sustainability has to be identified and incorporated properly to function in the long run. Muñoz et. al. in 2018, points out the difficulty of this, since our perception of the term sustainability and sustainable entrepreneurship has influenced us to observe the phenomenon through a “do-good” lens, which hinders us from detecting causes and consequences from an analytical viewpoint. This section challenges this understanding of falsely incorporating sustainable mindsets and implementations, based on the nature of the term itself.

### 5.6.1 Factors related to Sustainability for Startups

Some of the startups strongly identify with the term sustainability; NSOS are, however, more hesitant towards incorporating it fully. This is the result of adapting the “do-good” lens and not actually fulfilling it.

When the participants were asked which SDG they associated with, then the risk of accidentally classifying with sustainability was ignored, since these are wider associations of the term, rather than adopting the term itself. Requesting information on how the participants’ businesses relate to sustainability and sustainable actions is a direct question that is not too explorative, but gave the startups a chance to either highlight or disregard the use of the term “sustainability”.

Other factors that relate to this term for startups is not only how they identify and incorporate it, but also whether or not they have thought about it, to a certain extend. This is visible from exploring the questions that are head-on (appendix 3, question 6,7).

### *5.6.1.1 Challenges of Incorporating Sustainability*

How the startups are evaluating sustainability and SDGs within their businesses is the emphasis of this section, which ultimately relates to the incorporation of the term and its application. Nevertheless, sustainable entrepreneurship should not be grounded in preconceived concept of sustainability, but instead disrupt a contemporary understanding of the term itself. The word “sustainability” has so many positive connections related to it, that it makes it hard to adopt fully within a business context. NSOS 1 is pointing this out,

“... we did not dare to put ourselves in the market for being fully sustainable. We need to make some final adjustments, before we can take on that term... to making yourself seem sustainable in these times is very important, so we are looking into ways of changing our view or our DNA to make it more clear. We have yet to figure out the code, or correct answer.” (NSOS 1)

This statement is stressing what sustainability is causing companies to consider when discussing the term, which is to misinterpret and overanalyze. The term is not something that is 100% adoptive or not, it is something that is, as seen earlier, slowly adopted into the methods, strategies, structures and mindsets of the living organisms of businesses. It is not something that has to change the entire structure of the organism through the DNA, vision and mission, but it is a term that can be loosely adopted to even the smallest changes, since this is what has a long-lasting influence on future ways of managing startups. NSOS 1 is afraid of doing what Nyberg et. al. discussed in 2013, that some corporations loosely adapt concepts such as “CSR” and “sustainability” to display a certain capitalist imaginary.

Other participants are less concerned about incorporating sustainability as a statement, and more interested in changing and fixing what they have considered as future issues in today's markets. SOS 1 suggests that, "it is all about how your product is produced and where it comes from. If you could change that tomorrow, it would have a huge impact globally. ... you cannot change how the whole industry functions, but you can try to be the most sustainable." It is about dreaming big and believing in the largest impact possible that is the essence and values that should be embraced from sustainability, "we hope that we can flatten the curve in terms of who is getting the right education." (NSOS 3). Keeping in mind the mission and vision and hoping for creating a visible change tomorrow is what sets apart a sustainable entrepreneurship from standard. Grosvold et al. (2014) stated that companies are primarily concerned with risk; therefore, they fail to incorporate specific requirements within their supply chain. Failing to integrate desirable and impactful systems is failing to compete within a future market that involves sustainable actions in a lot of aspect for internal and external functions.

As Hockerts & Wüstenhagen mentioned in 2010, sustainable entrepreneurship can be considered a unique perception of traditional entrepreneurship that combines economic, social and environmental value creation together with a concern for the well-being of future generations. How is one to identify with three factors, before disrupting traditional entrepreneurial thinking? This is why the UN has broken down the term into more tangible topics in form of the SDGs, since they are relatable and incorporative. This is reinforced by what NSOS 2 says, "We can't really say that we are specifically sustainably oriented, but we would count ourselves into SDGs." All of the companies identified with at least one of the SDGs, since these are tangible and directly relatable goals. SOS 1, "we are

completely based on the 12th SDG (Responsible Consumption and Production) of promotional products.”; SOS 2, “Yes, number 12. Responsible consumption. That is the one we are working on.”; SOS 3, “Yes, of course the SDG nr. 13 concerning climate change and climate action are the one we are solely focusing on.”; NSOS 1, it would probably be something with 9 about innovation and infrastructure, but we haven’t looked at it yet.”; NSOS 2, “So you are kind of identifying with sustainability goal number four on quality education?” ... “Yeah, I think that’s what came to mind. Also another one, but we are not putting it onto our flag”; NSOS 3, “As far as I know. 11 is focusing on industry and number four is focusing on education. So right now we are identifying ourselves with number four.”

Despite minor disassociations, all companies could identify with at least one of the 17 SDGs. This is easier to grasp and understand, than just stating ones company is completely “sustainable”, as it eliminates the risk of falsely identifying with the term.

As stated earlier, the issue with implementing “sustainability” within a startup is that the term is heavy in its associations, which is daunting to startups. This is noticeable from the comments by NSOS 1, “So our sustainable thought is more to rely on reusability, instead of making everything sustainable.” Even for SOS 2, the term is incorporated within their core business as they are prolonging the lifespan of product by offering repairs. They have not fully integrated the term, since it is indicated that, “Right now we are just building up the business, and then it is something that should be incorporated later on.” It is difficult to create 100% sustainable solutions, but that is not the point of sustainability. The point is to create alternatives to harmful issues on environmental, social or economic issues. This possibly stems from being unable to measure and truly implement actions that incorporate “fully” sustainable solutions. As mentioned by NSOS 3,

“We do not have a big or large impact on the environment, but we are working with personal data, so ethics is a main topic of what we need to consider creating solutions that profit and benefit the user, and not the large company behind it.” (NSOS 3).

This is a way of creating sustainable solutions, because it disrupts current and previously unsustainable business solutions that advantageously manipulate social responsibilities. Even the smallest actions makes a difference, since it is not the large highly sustainable solutions that create the largest impact, it is multiple small solutions with sustainability considerations that have a large impact in the long run. Since these solutions are more likely to leave an impact on a higher amount of people and businesses, as they set an example for future generations. This is achieved through business management and implementations, but also by developing a company structured with a sustainable mindset.

### 5.6.2 Findings - Challenges of Incorporating Sustainability

Sustainable actions are hard to monitor and verify, however, not considering sustainability has larger consequences. Holt & Ghobadian in 2009 specified this. Issues of monitoring and verifying factual sustainability can justify why companies do not decide to focus on systematic changes that lead to the improvement of SSCM, but instead take on internally centered initiatives, such as waste management and cost reductions. The issues of monitoring and perceiving tangible results is difficult to regard as a manager, since the impact is hard to truly measure. Withholding a sustainable entrepreneurial mindset is also impossible to measure, however, the impact it has on systems, SCM and future behaviors for conducting businesses is immense. SOS 3 pinpointed the essence of this message that not everything has to be sustainable, if it ultimately harms the importance of ones identity.

“Maybe sometimes it does not make sense to do the most sustainable thing, in terms of time, money, and social relations. But, we really encourage ourselves and our employees to think about your actions and do the things after you have thought of it. For example, I am a vegetarian, but if my girlfriend’s parents have prepared some lamb for 24 hours just for me, I will not hesitate to eat it, because I love lamb, but it is more about not ruining our social relations that I consider to be more important in this case.” (SOS 3)

Identifying with the term “sustainability” is probable, but just like with a lot of other things in life, it is more substantial in small quantities. It is about recognizing the usability of the term, without misusing it to a large extend. With that being said, there is no way of exaggeratedly misusing the term, not using it would be considered as such.

## 5.7 Emerging Patterns Developed from the Findings

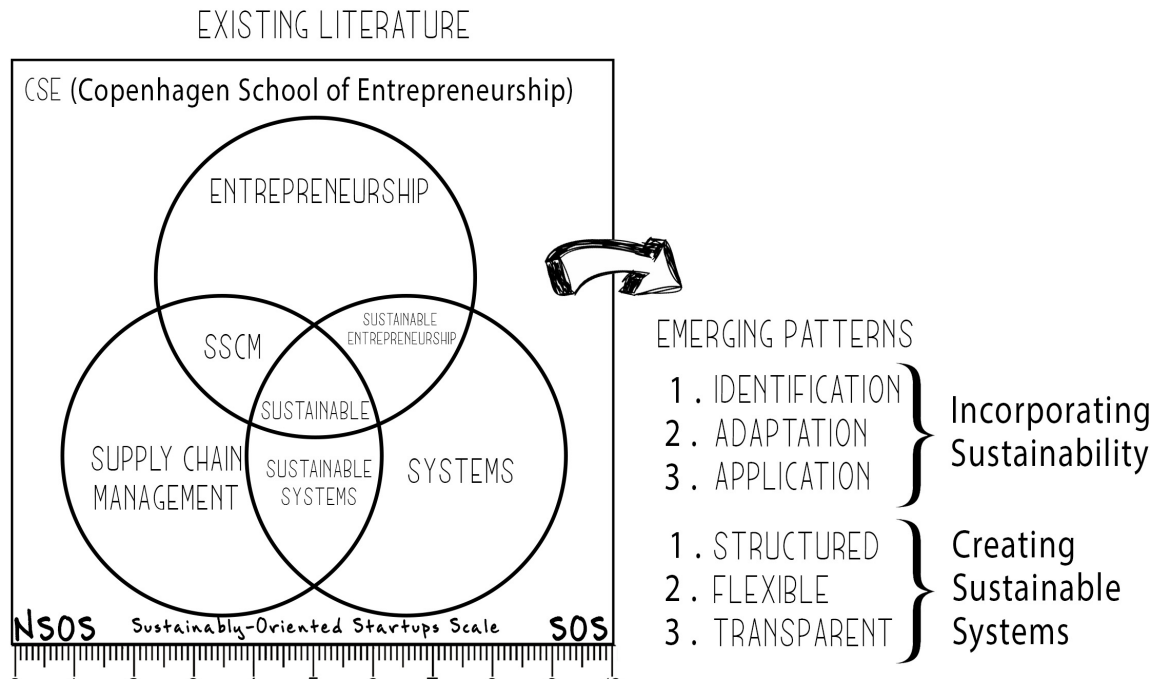
There are various ways to interpret the analytical sections, however, categorizing the main outcomes of each findings is a way to create an overview of the emerging patterns that were the most reoccurring. Each of the key words represented in the table below are associated to the topics in the analysis and exemplifies the main findings. There are between 6-8 frequent words generated from each of the 4 analytical sections. The highlighted parts are the reoccurring and connected words that appear more frequently than others, which ultimately shape the themes discussed in the conclusion.

Exploiting the patterns from the analysis is a way of connecting the dots between the interviews and literature review, which ultimately evaluates the integration of sustainability as a natural inclusion of a startup at CSE.

	<i>Entrepreneurship</i>	<i>Supply Chain Management</i>	<i>The Importance of Systems</i>	<i>Sustainable Associations and Implementations</i>
1	<b>Adaptive</b> to market environment, due to newness of a startup	<b>Flexibility</b> is high due to the size and limited amount of suppliers	<b>Transparency</b> of internal systems is important factor for startups	<b>Identification</b> with sustainability is desired by all startups
3	A strong <b>identification</b> and alignment with the mission and vision of the startups	<b>Transparency</b> and <b>identification</b> with suppliers and operations is important for the startups to display towards their customers	<b>Structures</b> of the operations are necessary to communicate their functionality for the startups	<b>Adaptation</b> of how sustainability is incorporated into the startup is difficult to communicate

*Table 5 – Overview of findings from analysis based on conceptual framework*

This table is a representation and extension of the thematic analysis, which highlights key themes and patterns discovered throughout the literature and the interviews. These emerging patterns are inserted into the conceptual framework to illustrate the findings from analyzing the case study of CSE and develop an understanding of how the topics are merged to conclude on what the literature is lacking and startups are incorporating or misinterpreting.



**Figure 9 – Conceptual framework with emerging patterns from analysis**

The emerging patterns generated from the analysis of investigating startups at CSE have designed key patterns related to two categories, which correlate to incorporating sustainability within startups. These categories are **incorporating sustainability**, which involves identifying, adapting and applying sustainability. Moreover **creating a sustainable system** within a startup requires a structured, flexible and transparent supply chain management and internal systems. Hence, two categories emerged from the findings of existing literature and interviewing startups. These categories and patterns will be further explored within the conclusion.

## 6. Conclusion and Recommendations

### 6.1 Limitations

The aim of the research was to consider startups within two distinct categories, SOS and NSOS, which represents a larger group of 686 startups from CSE. The relatedness of these 6 startups is not translatable to determine an overall perception of how sustainability is incorporated into all startups' entrepreneurial mindset and supply chains at CSE. It is clear that the broad spectrum of the startups industry at CSE and in all of Denmark were not covered. However, it is conclusive to investigate how and to what extent this term is represented on a smaller scale. Some startups were unable to participate, and from a large batch of 24 contacted only six interviews were conducted (appendix 12), which limits the scope for generalizing on the population. Nevertheless, the growing trend of sustainability within startups was confirmed verbally in the interviews and backed up with reviewed literature, which is considered to be sufficient for the purpose of this study.

Another limitation seemingly obvious for this study was the online interviews. These were supposed to be conducted face-to-face at CSE, but this was made impossible, due to the circumstances of the Coronavirus. Moreover, the virus further prohibited physical meetings with my supervisor, or any fellow students to aid the advancement of this thesis. Not only did it effect the data collection and feedback processes, it also limited access to physical libraries in Copenhagen and writing zones, which further made it inadequate to work as intended.

Finally, this thesis has a primary focus on the entrepreneurial mindset of individuals, and a limitation linked to this study is that no startups with a

lifespan of more than two years or startup groups were interviewed. However, for the purpose of investigating the use of sustainability within these settings, it is considered to be sufficient enough to collect it from the CEO of the company.

## 6.2 Further Research

This study could be complemented further by conducting a comparative study in another country with similar market characteristics for startups as in Denmark. This could be one of the Nordic countries for example, Sweden, Norway, or Finland, in order to recognize if entrepreneurs carry similar awareness and operational traits towards sustainable practices. Additional to this research could also be conducting a longitudinal study in Denmark, which would include other incubators or accelerators for startups, for example at other universities in Copenhagen, Aarhus or Odense, like DTU, AAU, and SDU. This would provide better insight into the implementation of sustainability and look at the effects over time. Moreover, a replicative study could also be fascinating to understand how startups have varied in their perception and ideations at CSE in one to two years, to determine, whether new forms of attitude towards the management style is detectable. This is also interesting to observe how the current concepts used in this study have developed over time, and whether sustainable entrepreneurship or sustainable supply chain management is more applicable. The study also highlights how definitions and interpretations are always developing and constantly adapting to fit within the current business environment, which is reflected by the startups' relation with entrepreneurship and sustainability. Lastly, conducting a study to test how established businesses are incorporating these term is not downright applicable, but noteworthy nevertheless to address whether the terms are merely adopted in startup.

## 6.3 Recommendations

By addressing, *how sustainability is incorporated within entrepreneurship and supply chain management of startups in Denmark, specifically startups at CSE?* A lot of interesting inputs and outputs have been evaluated, but emerging patterns about how the term “sustainability” has been incorporated and perceived; the mindset of the individuals behind the startups and how internal and external systems have developed is ultimately the answer to this question. Just like Elkington’s triple bottom line associates three factors to determine organizational sustainability, the conceptual framework distinguishes three core factors that uniquely describe enough aspects about startups to determine how sustainability is, in fact, assimilated into the business structures. Further exploring what kind of systems startups are considering, as well as evaluating sustainability vs. SDGs is what emphasizes the misuse of the term and the associations of it in startups today. The emerging patterns from the findings are explored as a mode for recommending future and current startups of how to incorporate, adopt and handle sustainability.

### 6.3.1 Recommendations Based on Emerging Patterns

The findings from the interviews varied a lot based on the topic of discussion, but some of the patterns that emerged display similar characteristics. For example, creating a strong **identification** with the mission and vision, but also the term “sustainability” was eminent for forthcoming success. *Transparency* within the startups’ supply chain and internal system **structures** develop a resilient **applicability** and **flexibility** concerning future challenges for the startups to cope with.

As illustrated within the conceptual framework, these terms and recommendations for startups to better incorporate sustainability are all interconnected. The two emerging patterns generated from the findings were the incorporation of sustainability as a term, and the entrepreneurial trait and mindset associated with it. Secondly, it was crucial to form organized, adaptable and apparent systems for the construction of sustainable systems, since these are considered more adaptable to future scenarios.

#### *6.3.1.1 Incorporating sustainability*

This recommendation of incorporating sustainability, address how sustainability is viewed within entrepreneurship for the two groups of startups investigated at CSE, but also how these startups associate with sustainability and SDGs within their businesses. What was distinct for this study was the fact that startups relate loosely to the term itself, but highly to associations of the word. Given that all startups could relate to at least one of the sustainable development goals demonstrates that too many positive connotations exist with the word “sustainability” itself to become implementable, even for startups directly correlating with sustainability through their business visions. What this does not tell us is that social desirability bias might exist also in the results, particularly when addressing sustainability, since it is commonly promoted and encouraged as a socially desired behavior to protect the environment. Addressing both of these issues highlights the difficulty with the application of the term, since there is a fine line is between overuse of the word and the “correct” use. What stands out from the results is that no overuse of the word is incorrect, since customers and suppliers will identify this distinction independently.

Startups that want to incorporate sustainability need to understand their individual interpretation of the term, identify with this, adopt it, and make it

applicable for their specific purpose. Whether this purpose is marketing related, to serve as a guideline, or to strive towards achieving SDGs, it is something that all startups should consider when starting their enterprise.

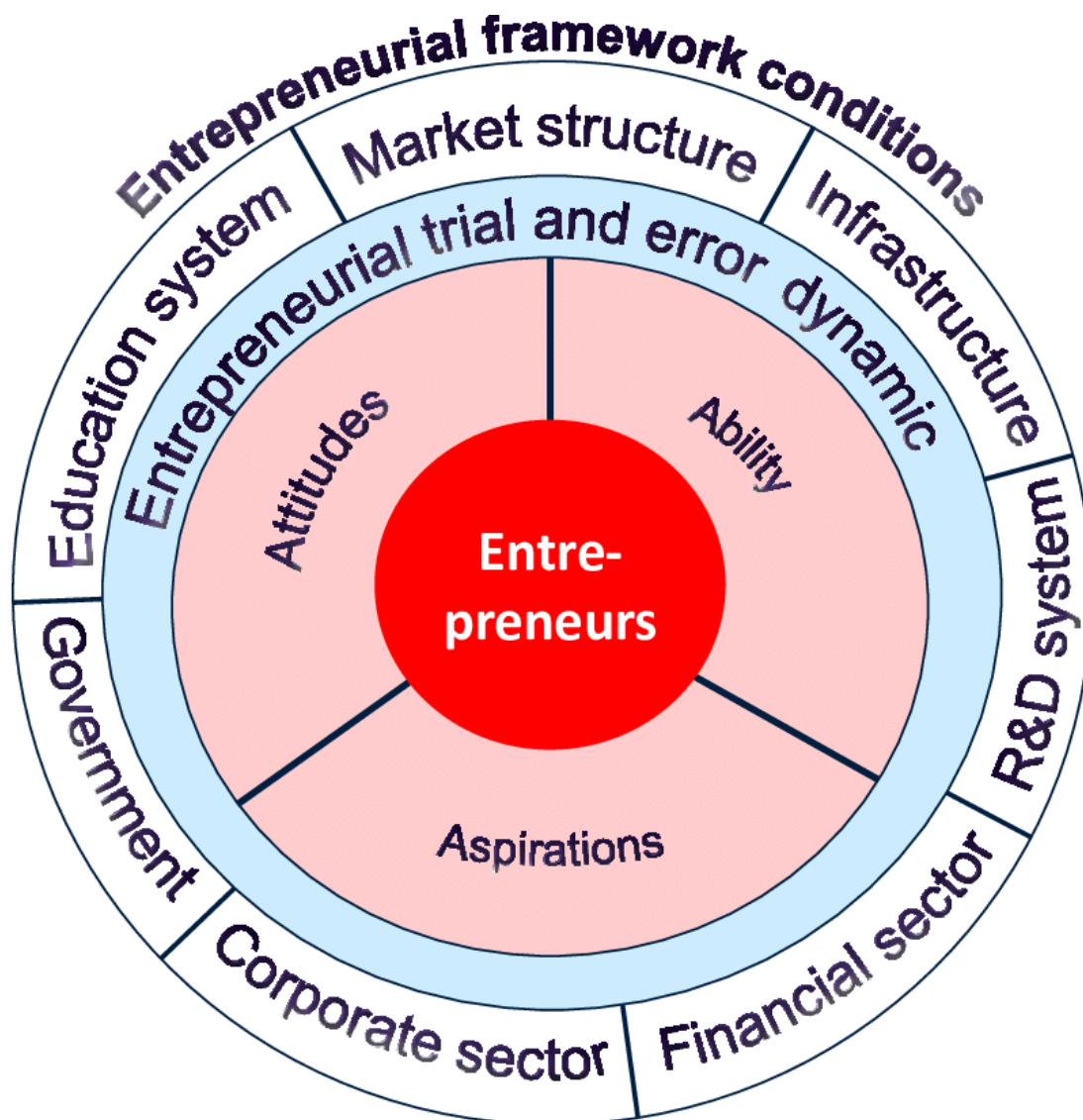
#### *6.3.1.2 Creating sustainable systems*

This recommendation of creating sustainable systems, address how sustainability is incorporated within supply chain management of startups at CSE, but also the kind of systems startups are considering when developing business structures. The distinctiveness for startups at CSE was their novelty, which allows for a certain flexibility and transparency when designing operating systems and internal structures. The data suggests that a large number of startups were not creating sustainable systems, due to the early stages of the startup, however, as the similarity of organisms and systems suggest, the systems are already created. These systems, such as supply chains, internal communicative are constantly evolving and developing as with a growing organism. The misconception of certain control or involvement the startups has with the system is that it is not applicable to outline details within such a small scale. Eventually, the system will develop and become more intricate.

The direct recommendations for startups that aspire to develop sustainable systems is to address the structures for how information is circulated within the business, but also how feedback is integrated into these systems, since this is the main characteristic for upgrading the systems. Moreover, instead of limiting the natural development of existing systems by undermining them, embrace and reflect on the current management of them in order to fully exploit the flexibility and transparency assimilated within a startup.

## Appendices

Appendix 1 – The Entrepreneurial Framework Conditions explaining the entrepreneurship “ecosystem” that GEI uses to measure health of ecosystems



Appendix 2 – Research Consent Form

RESEARCH CONSENT FORM

*\*Consent was obtained verbally before each interview.*

Name of Researcher
Mathias Rolf Jensen
Title of study
Sustainable Entrepreneurship in startups

Please read and complete this form carefully. If you are willing to participate in this study, please sign the date and declaration at the end. If you do not understand anything and would like more information, please ask.

I freely and verbally give my consent to participate in this research study and

- I have had the research satisfactorily explained to me in verbal and / or written form by the researcher.
- I understand that my participation is voluntary and that I am free to withdraw at any time without giving reason.
- I understand that all information will be treated in strict confidence, and that my business or I will not be named in any written work arising from this study.
- I understand that any audiotape material will be used solely for research purposes.

have been given a copy of this form for my own information.

Signature:  
.....

Date:  
.....

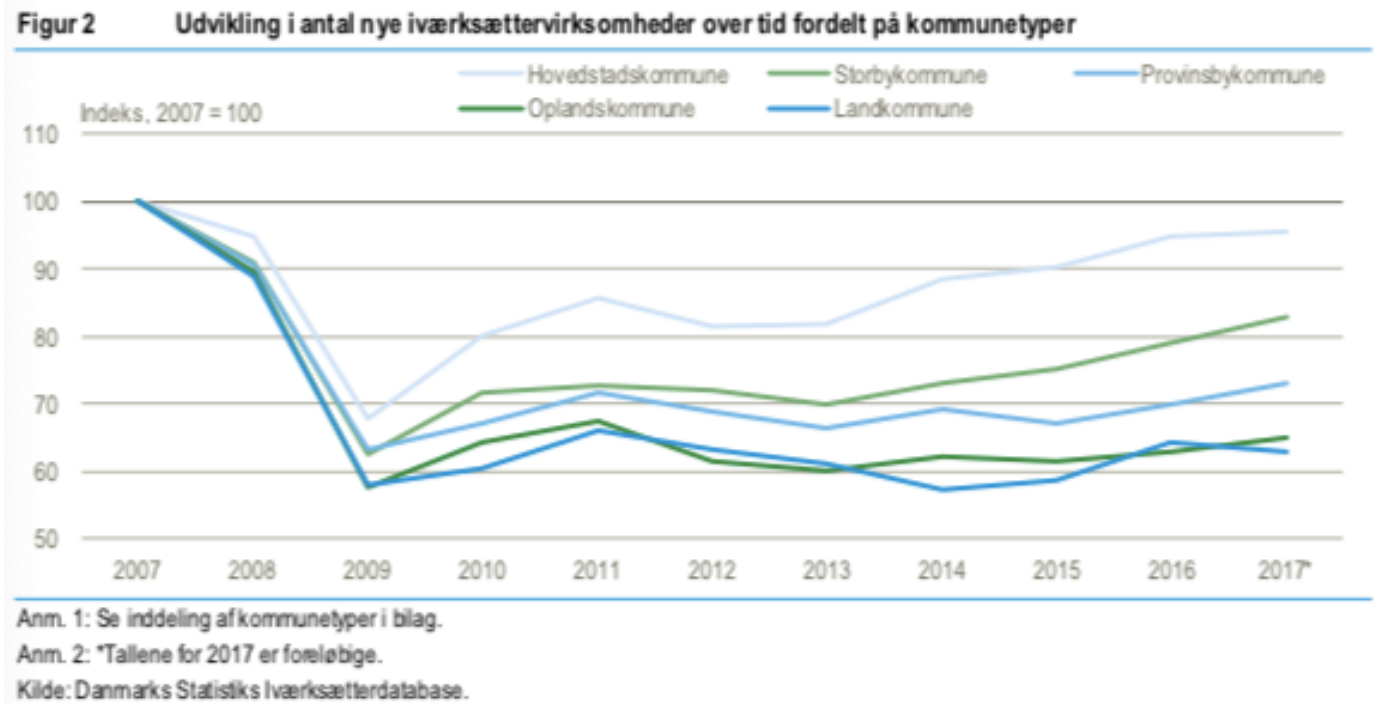
### Appendix 3 – Guiding Interview Questions

Themes	Questions	Follow-up questions
<b>1. Informative/ General</b>	How would you best describe your business?	What is your mission/vision?
<b>2. Startup</b>	What does being a startup mean to you?	Startup being: <i>“the creation of an entirely new enterprise which did not formerly exist as an organization”</i> ?
<b>3. Entrepreneurship</b>	What do you do differently from others that are in the same field of business as you?	How does your approach disrupt current businesses?  <i>Style: style is concerned with how to conduct oneself, think, talk and act in social settings (Spinoza)</i>
	Would you identify this as being entrepreneurial?	Who do you consider to be entrepreneurial? Yourself, or any role models?
<b>4. Systems Theory</b>	How would you describe your organizational structure and information management?	How do your business use systems to interact and provide feedback between processes and subsystems?
<b>5. Supply Chain Management</b>	How does your business create value? How do you generate this value?	How would you best describe your operational and informational structure?
	How do you secure a competitive advantage within your business environment?	What is your organizational strategy to cope with challenges of the future?
<b>6. Sustainability</b>	What is your business’s relationship with sustainability?	How do you incorporate sustainable behaviors/strategies into your business?
	How is your business considering sustainable actions in terms of your business style and competitive advantage?	In what way is sustainability integrated in your entrepreneurial setting and supply chain?

<b>7. Final comments</b>  <b>Snowballing</b>	Do you identify with any of the SDGs in particular?	What are your reflections on SCM and how entrepreneurship has innovated this?  Whether SCM plays an important role in sustainable development?
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*\*The idea of these guidelines is not to ask all of the questions, but rather to gather an understanding of each startup, and how they have incorporated or developed the mentioned themes within their business. In this way the table is serving as a checklist tool, in order to ensure a detailed and thorough collection of data of the participants involved.*

#### Appendix 4 – Graph illustrating the creation of startups over time from 2007-2017 based on regions in Denmark



## Appendix 5 – Transcribed interview with SOS 1

### Interview with an anonymous sustainable production company at CSE

Interview date: 24.03.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Participant (Anonymous)**

#### *Before recording:*

Is it okay to record the interview?

P: Yes, but I prefer to keep the company and my name anonymous.

**0:00-0:11:**

I: I keep your company name and your name anonymous, if you prefer that?

P: Yeah, definitely

I: Okay, sure

**0:11-1:22:**

I: So, I did a little research on you and your company, and I thought it would be interesting to talk to specifically you, since you are the CEO of this company. I am guessing that you founded the company and started it up. So to begin with, **how would you best describe your business yourself?**

P: So, I started the company in March 2019. What I do is help other companies consume promotional products responsibly, and I do that by sourcing a catalogue of products, of the most eco-friendly products in Europe. ... Anything from pens to notebooks that can be branded with a logo

**1:25-1:48:**

I: A little bit about startups, **how would you describe or what does being a startup mean to you?**

P: Firstly, to me, entrepreneurship is my passion. A startup is an exiting challenge.

**1:50-4:10:**

I: **Okay. What do you do differently from others that are in the same field of business as you?** I know that there are a lot of companies looking into sustainable products, but how do you differentiate in this market?

P: There is a lot of competition in our industry, and there are direct competitors doing eco-friendly products and indirect competitors, who will traditional promotional products that are not eco-friendly. The thing that we do differently

from the competition is to have a simplified narrow process and service, which is directly linked to our products through our website. We are, therefore, building an e-commerce platform in parallel to our website, enabling customers to purchase directly online.

From direct competitors, we are a lot more transparent than any other distributors, which is an important aspect to me, because I would not like to promote any green washing. We try to go all the way, to showcase the most information, such as where the product is manufactured, which material it is composed of. Basically, any information that may be disclosed externally to stakeholders. We try to be very transparency, so that is why we try to keep our supply chain short. That is why I focus almost exclusively on products that are made in Europe, which is a huge challenge, since 80% of promotional products usually are made in China.

**4:11-4:39:**

I: **Would you identify this as being entrepreneurship, what you are doing right now?**

P: Yes, definitely. 100%. We are in the go-go program, so we are surrounded by entrepreneurs and a super simulating environment. It is definitely incorporated into what we do on a daily basis.

**4:40-6:42:**

I: **How would describe your organizational structure, and also your information management?** How do you transfer information within the company, so everybody is on the same page all the time?

P: Yeah, so as the founder I have a team of 5 people working with me on a voluntary basis, or interns. Since I am the sole-founder, we are a very lean organization with what I try to do, with no big hierarchy. I just want them to be interested in what they do, since nobody is paid at the moment. I believe this is where you find people that are good to work with, since we have a higher goal than just making profits. That is very cool, when you build a company that has social and environmental goals.

The way we try to communicate internally is through online tools, such as Slack and Trello, and storing our documents on GoogleDrive.

**6:43-7:25:**

I: I know that you have people in your organization that are from different countries, locating you all over the world.

P: Yes. From all the people I have worked with, there are not 2 people from the same country, so I have had to learn multi-cultural management. And the fact that our market is solely in Europe, it means a lot.

**7:26-10:00:**

I: You said you tried to shorten your supply chain. **How does your business create value, and how do you generate this value?** Not specifically value for your profits, but for your customers/clients?

P: In terms of the supply chain or in terms of everything?

I: Mostly in terms of your supply chain, but if you can talk about both that would be great.

P: Okay, yeah. I will start with our supply chain.

As I said, I try to source all of my products in Europe. At the moment I have 3 suppliers, who are based in Europe. However, some of them buy products outside of Europe and customize them in Europe. So, what I do in terms of my supply chain I look at their suppliers and their products. I look at where they are based and where they are manufacturing. I pick exclusively the ones that are made in Europe. However, with some exceptions, such as bags made from cotton, which cannot be produced sustainably in Europe, due to the conditions. In that sense, I would rather have cotton bags that are produced in India, where cotton is produced. If the product is produced in the same location it then reduces the transportation, hence, the CO2 emission. This is the only exception of products produced outside of Europe that are in our catalogue.

The value that the customer's get is of course reduced CO2 emission per product. Since the products have to be produced, customized and sent to the client. The imprint is quite big, in proportion to just producing the product on its own. That is the value that they get in regards to the supply chain.

The overall added value is that we help companies reduce their CO2 imprints, but we also try to create awareness about new materials, and why we pick these products. We try to educate people about that, since there is a lot of misinformation regarding environmental sustainability.

**10:01-11:25:**

I: I completely agree, there is a lot of misinformation as companies try to green wash and promote themselves as sustainable.

P: Yes, it is interesting to be a startup in terms of this. Since you cannot change how the whole industry functions, but you can try to be the most sustainable.

I: **What is your organizational strategy?** You did talk a little bit about that already, but **how do you cope with future challenges?** So, since the market is changing a lot with focusing on sustainability, how do you cope with challenges that have not been foreseen yet? Disregarding the virus, but in general business challenges?

P: Whenever something is coming up, I reach out to my network on how to cope with this. If I need to hire someone for that specific challenge, then I will do it.

**11:26-12:26:**

I: So, **what is your business's relationship with sustainability?** I know you are leaning towards sustainable products, development and transportation. But **what is your actual relationship with this term 'sustainability'?**

P: Aah, cool. That is a good question. So sustainability to me means that it is durable and for people it means that it is green. There are a lot of misuses of that

word, which is why I use environmental sustainability, because I think it makes much more sense. That is basically my relation to it. Because people are relating a lot to it

**12:28-16:08**

I: Yes, I very much like the term environmental sustainability.

**How is your business considering sustainable actions, in terms of your business style, and competitive advantage?** How do you take these actions that are sustainable per say. I know you talked about your supply chain that you are trying to minimize sustainable transportation impact and production impact. But, what other actions are you taking towards competitiveness?

P: So, lets go back to India. For example, when we have products that are produced outside of Europe, we ask for way more certifications, to ensure that the products are ethically produced and have ILO (International Labour Organization). Basically, there is supposed to be no bad conditions, in order to ensure that they are socially and environmentally sound. When it comes to other initiatives, I make sure that what we do is environmental and sustainable. Now, I will for example partner with another company that will compute our company's CO2 emission. I am also trying to compute the impact of our products vs. a traditional promotional item.

P: You might also know them "HoodHeroes", who function as Trustpilot for sustainable companies. I am also on their platform, and I sponsor some products for them.

**16:10-21:15**

I: **Do you identify with any of the SDGs in particular?**

P: Basically, we are completely based on the 12<sup>th</sup> SDG (Responsible Consumption and Production) of promotional products. We also have other SDGs that we associate with, but for a startup it is enough to focus on 1, since it is at the heart of our mission.

I: Lastly, **what are your reflections on SCM and how entrepreneurship can innovate and change this in the future?**

P: I think, for a small startup it is really hard to have an impact on traditional supply chains, since they have been working in a certain way for a long time. There is a lot to do, but there are already a lot of certifications (which we also incorporate in our business). There is a lot to do, but you can have QR code on your product to see how it is produced, however, it is a big task and hard to have an impact. It is all about how your product is produced and where it comes from. If you could change that tomorrow, it would have a huge impact globally. In my own way I take small steps towards a greener supply chain, because I only accept suppliers that are in Europe. That is a way to push towards a more green production in Europe.

I: Thank you so much for your time, and good luck with your thesis as well. Stay safe.

P: No problem. Let me know if you have any follow-up questions, I'd be happy to help. You too stay safe. Bye-bye.

## Appendix 6 – Transcribed interview with SOS 2

### Interview with Sara Holt from Make It Good Again at CSE

**Interview date:** 25.03.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Sara Holt**

*Verbal consent was given in Danish before the start of the interview*

**0:00-1:07:**

I: To begin with, just an informative questions: **how you would best describe your business and what it is?**

P: Umm, like the company, or in general?

I: Just in general, sort of your company's mission and vision.

P: Yeah, so. Our mission statement is to break the 'throw-away' society, but making it more accessible to get your stuff prepared and also cheaper. We do that by allowing customers to put their broken items on display for the technicians or repairmen. Then the repairmen go and underbid each other, in a reverse auction system to get the cheapest price. The customer can then chose the cheapest option given. However, they do not have to choose the cheapest one, but can freely choose the ones with the best ratings etc.

**1:08-3:15:**

I: It is a very cool concept. It very good to make people extent the lifespan of their products, instead of throwing them out, and I guess that is the whole point of making this in the first place.

P: Yes, absolutely. And also, it is especially the stuff that you do not know where to go to get it repaired. Such as, headphones, kitchen machines, which is the biggest value we bring to the table.

I: Very nice. So, the second question, **what does being a startup mean to you?** I am guessing you are the CEO or administrator. I don't know if you have titles.

P: Yeah, we don't work that much with titles, but sure I am.

I: So just to return to the question, **what does being a startup mean to you specifically?**

P: I think that is a hard question, what being a startup means to me. I do not think you can make a specific term for what a startup is. It is just somebody trying to create value. Not necessarily creating a new market, but bringing

something new to the market. A startup, I think of them as being the innovators of the business world. Everybody can be a startup. I think I would be better at describing what an entrepreneur is.

I: That is also my third question, which is focusing on entrepreneurship. But you put it very nicely.

**3:26-4:28:**

I: So, **what do you do differently from others that are in the same field of business as you are?** I know you are maybe not in the same field as a lot of companies, but you connect repairmen to the customers as you said.

P: Yeah, so what we maybe do differently from repairmen is that we use an overview, but it is probably more interesting to compare us to other marketplace like – I don't know if you know - 'hand-in-hand' and 'task-rapid'. What we do differently from them is to only focus on repairs and on the environmental issue.

**4:30-5:03:**

I: So, leading into the entrepreneurship. Would you identify this as being entrepreneurial?

P: Yes, I would definitely identify this as being entrepreneurial. Because we are bringing some new value to the table, and that is what I see entrepreneurship as.

**5:05-7:00:**

I: I completely agree. **How would you best describe your organizational structure and information management?** Focusing on the way that you structure your organization and how you pass information to each other collaboratively.

P: Since we are such a small startup it is very informal. We haven't really come to the creation of an organizational structure. It is, therefore, a bit random. I myself am very structured, so I use a lot of online tools. We have a weekly meeting to discuss what we are doing this week. Then we have quarterly meetings where we discuss and set goals. We don't have any rules on how to communicate.

I: Okay, so you don't have per say, a certain system that you use to interact or provide feedback to each other.

P: Yeah, we have Slack, but we don't use that. Then Asana as a project management tool for developing tasks, then we use Weekdone as a to-do list. But we don't share feedback and all that.

**7:01-8:28:**

I: Moving a little bit into your supply chain, **how does your business create value, or how do you generate this value?** You for example create a lot of sustainable values that the customers don't necessarily see.

P: The thing that we do through our communication is to – I wouldn't necessarily say this, but - supply them (customers) with green value, because when their repair through us is has a good value. It is more of our marketing strategy. The values we provide is allowing people to get their things repaired and check if there is a possibility to do so. The first users are customers already with a 'green mindset'. The value we create is making it easier for people wanting to get their things repaired, but in the long run we really like to make it a trend, which would then be our long-term value that we create.

**8:30-9:49:**

I: And **how do you then secure a competitive advantage?** That your company is chosen from others as you mentioned earlier.

P: We are very much aware that it is easy to copy our concept for a bigger company. That is why we are focusing very much on getting private repairmen onto the platform. Those are the people able to repair special stuff, and they are not as easily accessible. We have a network with repaircafé Denmark and know some people that repair stuff themselves. We have easy access to these repairmen. We, therefore, have to put them in a room and ask how we can make the platform accessible to them. Then we have to build something for them and have them on the platform, and then it will not be easy to copy us.

**8:30-11:15:**

I: Talking a little bit about sustainability, **what is your business's relationship with this term sustainability? How you incorporate it.**

P: Well, for now it is mostly our message and mission statement. We don't do anything extra now. It is definitely something we would like to incorporate more into the business, so it is a natural part of the business. Or plant a tree when people get something repaired, or make collaborations with other companies focusing on sustainability. I think it should be important for us to communicate, because it can seem a little 'thin' in the long run, if the only thing we do is use it as our marketing strategy. Right now we are just building up the business, and then it is something that should be incorporated later on.

**11:17-12:18:**

I: Moving a little bit more in this direction. How is your business considering these sustainable actions, in terms of your business style? I know you said you wanted to incorporate it a little bit more, but how do you make your customers understand that this is the 'right' way to do it? That it is a good way to repair in the future, if you have something that is broken.

P: Well, it is just like in any communication we do. That is how we ensure it. We do not have any extra stuff; it is just in the way we communicate. Yeah.

**12:19-13:05:**

I: I don't know if you are familiar with them, but **do you identify with any of the SDGs in particular?**

P: You are talking about the UN's goals? Yes, number 12. Responsible consumption. That is the one we are working on.

**13:07-16:48:**

I: How do you agree on, if you want to incorporate sustainable behaviors or strategies into your business. And how do you ensure that you are always on top of future challenges? Because, I know you are aware of the fact that the market is moving into a more sustainably oriented behavior and so are customers. So **how do you cope with these future challenges of the market you are operating within?** If that makes sense to you?

P: Yeah. We are not that big, so start doing future plans, but when we move on it is something that we will be working on. Right now, it is not really relevant to think that much on the future, but rather focus on the service we provide and the challenges with that. I think when we are ready to scale we will make a strategy for our structure and stuff like that.

We definitely have ideas on expanding on our activities provided, but whilst keeping our mission in mind. It will always be with the vision in focus. So you could easily expose of electronics or something like that.

I: Those were pretty much all the questions I had for you. That was it, thank you so much for participating in the interview. I will write you an email with some formalities regarding the interview file will be destroyed after I have handed in my thesis, and I will send you the transcript of this interview. Have a nice day and thank you so much.

P: Yes, thank you as well and good luck.

I: Thank you, and good luck with your startup.

P: Take care in these Corona-times.

I: Yes, and ditto.

P: Thanks, bye-bye.

I: Bye-bye.

## Appendix 7 – Transcribed interview with SOS 3

### Interview with Oskar Dahl Hansen from RenSti at CSE

**Interview date:** 25.03.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Oskar Dahl Hansen**

**0:00-0:21:**

I: To start off the interview, is it okay that I record this meeting for transcribing the meeting?

P: Yes, yes, of course.

I: Okay, thank you so much.

**0:22-0:53:**

I: To start with I did a bit of research on your company. You are Oskar, the COO and founder of the company?

P: Yes, co-founder. Yeah, that's correct.

**0:54-1:41:**

I: To begin with, I would like to ask **how you would best describe your business and what your mission and vision is for this?**

P: Uh, so. How to best describe it. I think we are empowering individuals in the fight against climate change, by informing them about their carbon footprint and afterwards give them the opportunity to offset or remove their emissions.

**1:42-4:21:**

I: That is also the idea I got by reading about your company on your website. Just to talk about you being a startup, **what does being a startup mean to you?**

P: Do you mean in terms of the company, or personally?

I: Both ways, how you would describe what a startup means, personally and also business wise.

P: Yeah, I mean. For all of us at RenSti it is our first startup. To be honest, I don't think we really knew what a startup was, or how the startup life was before going into this. Of course we started RenSti with the intentions of affecting the bigger picture and climate, but I also like the startup way of doing business. We are in this incubator/accelerator, and there are a lot of good intentions between the startups, since everybody knows about the tough reality of being a startup. I really like the friendship and the mentality behind it.

From the business perspective, it is of course very unstructured to be honest. That must be the biggest difference from a corporate company. There is a short span from idea to action. The business plan is not necessarily set, so all these things that should be done are not set in stone, however, this also makes us more flexible. So there are both pros and cons to it. I don't know if that answered your question?

**4:23-8:30:**

I: Really good answer. I will also say that I enjoy getting to know your company, and it is impressive what you have achieved so far, so hats off. A little bit about entrepreneurship; **what do you do differently from others that are in the same field of business as you are?**

P: So you mean, for example to our competitors?

I: Yes, exactly.

P: I think, one of the most important things we are doing is the way we are talking about climate change is by addressing it very lightly, and not apocalyptic. We are very inspired by this Norwegian man, who made a book, which concluded that the fear and consequences of climate change are so heavy and big that the human mind cannot process it. This means that we have to make it more relatable, instead of telling people if you do not act now, our kids will die. It does not help anything. Inspired by him, we are trying to address it more lightly. For example, our website is blue instead of green, and we are trying to do it with a mascot. We are trying to make it more young and fresh.

I: More easy going, and relatable to the customers as you said.

P: Yes, definitely.

I: Just another questions. **How would identify this as being entrepreneurial?** In terms of disrupting current business ideas.

P: We started 20 months ago, or 1 and a half-year ago. We were the only ones doing it, from what we found. There were a lot of places where you could calculate your footprint, but where you could donate arbitrarily "if you donate 100 DKK you can lower your footprint." We tried to make the link very specifically and personally from your footprint and how you can donate. In that way we like to see ourselves as disrupting the market, because we are making carbon-credits and not quotas, for example. We are not doing the UN certified projects, because there are a lot of issues involved with that. What all these big corporations have been doing for several years, but it is not efficient enough. We are trying to approach the market in a different and cleverer way.

**8:31-12:15:**

I: That is the identity of being entrepreneurial, as you are changing something that was not there before. A little bit on your system and how it functions, **how would you best describe your organizational structure and information**

**management**, so how you transfer information within the company and how you organize this amongst each other?

P: Yes, so we are trying to make the organization as flat as possible. We are very focused on being good friends in the company, of course this is not necessary, but we appreciate that we enjoy having long nights together, working in the weekends etc. Which is why we want as flat as possible of a structure. It is 'utopian' to think that you can manage a team that is completely flat in the organizational structure. We have separated into consumer and business part, where I am primarily in the business part. We all have a say. Oliver the other founder he is focused on the consumer part. Are you thinking of the day-to-day routines or in terms of the bigger picture?

I: More in the bigger picture, for example, how you business are using certain systems to interact and provide feedback between each other, using subsystems for example.

P: For project management, we are using Asana.com a lot. However, in these times especially, we are using Asana board, so we can see what each employee is involved with and working on, but we do not have a systematic feedback system online. We could be better at implementing operational aspects for the everyday tasks, but we are mainly using Slack, Asana and GoogleDrive. Hangouts every morning now. It is only for the more creative parts that we need to be closer, such as app development or graphic design, because we are sparring a lot.

**12:16-14:15:**

I: Addressing your supply chain, **how does your business create value, or generate this value you are providing?**

P: We are creating value for our consumers, by educating and informing them about their carbon footprint, and then we are creating value through the value of their money, by giving them a greater purpose. By enabling people to use their money in good places, but for businesses it is easier to create internal CSR. For example, if a company's CEO reaches out and says, I have an amount of employees that are very worried about climate change, what can I do? Please help us. Then we are helping them to create a lot of hands-on value, but also through external marketing as it is becoming gradually more important for businesses to showcase their contribution to fight against global warming. A lot of companies will then show it on their front-page to generate more traffic etc.

**14:16-17:21:**

I: I completely agree that it is more of a trend now that companies want to showcase their sustainable awareness. But, **how do you then secure a competitive advantage within your business environment?**

P: I will just get my charger, one second.

I: Of course.

P: Could you repeat the question again?

I: Yes, of course. **How do you secure a competitive advantage within your business environment?**

P: Yeah, that is a very good question. Now we have been doing this for approximately 1,5 years. Doing the last 6 months, we have seen a lot more companies that have emerged with a similar concept in Denmark, but also Germany and the UK. So, now we are trying to use the first-mover advantage and trying to make the customer experience way better. We like to see it as, now we have created this MVP (Minimum Viable Product), proof of concept and we have a lot of customers, so we can see the interest for it. Now we are spending some money to create a new platform, and an app for the consumers, which will be used after the test. After signing up for being a member, we are letting customers interact with their emissions, reduce hotspots and 'gaming-fication', and thereby being a one solution for people worried about the climate. Basically, improving customer experience from beginning to the end.

**17:24-20:18:**

I: I have tried to use your website to calculate my CO2 emission, and it seems very intuitive and sustainably oriented. Leading into my next question, **what is your business's relationship with sustainability? Like, in terms of how your business considering sustainable actions in terms of your business style and competitive advantage?**

P: One thing we try to do is live what we are preaching, but we are also very pragmatic. In terms of thinking sustainably, since we are not very holy when it comes to discussing sustainability, because we know it is more about thinking about your actions. Maybe sometimes it does not make sense to do the most sustainable thing, in terms of time, money, and social relations. But, we really encourage ourselves and our employees to think about your actions and do the things after you have thought of it. For example, I am a vegetarian, but if my girlfriend's parents have prepared some lamb for 24 hours just for me, I will not hesitate to eat it, because I love lamb, but it is more about not ruining our social relations that I consider to be more important in this case.

**20:20-21:45:**

I: Some final comments **how do you, or do you identify with any of the SDGs that the UN came out with?**

P: Yes, of course the SDG nr. 13 concerning climate change and climate action are the one we are solely focusing on. It is, however, not very true because when we are collaborating with companies to offset their CO2 emissions, we are involved in projects that revolve around the other SDGs. We are trying to not falsely market ourselves to say that we are touching 15 out of the 17 goals. Our take on it is that we sought of focus on climate action, whereas, the other goals are collaterals, but we are not actively using them.

**20:43-24:42:**

**I: Lastly, do you know of any startups within this scope that I can maybe also talk to?** Because I have contacted a lot from CSE within this particular field of sustainability.

P: Whom have you already talked to?

I: I have talked to [REDACTED] and to Sara from 'Make It Good Again'.

P: Ah, okay. Yes, I can think of one. Magnus, from 'Legacy Group'.

I: Is it a consulting company?

P: Yes. He is trying to optimize and atomize CSR for SME's with AI. He is very good with AI-part, and pretty good on the carbon collaboration as well. I know he is busy, but you can try to reach out.

And then, we are working with this energy company from Finland called 'GetBarry', but it is a corporate startup from a finish energy giant called Fortum. They are showing price and carbon emission of every Kilowatt-hour. They are working together with us and have been very nice.

I: Cool, and thank you so much for your time.

## Appendix 8 – Transcribed interview with NSOS 1

### Interview with Rasmus Nikolaj Doolengs from Groviac at CSE

**Interview date:** 26.03.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Rasmus Nikolaj Doolengs**

**0:28-0:45:**

I: To begin the interview, is it okay that I record this meeting?

P: Yes, that's fine.

I: Okay, thank you so much. And is it okay that I use your name and your company's name in the thesis, or would you rather remain anonymous?

P: It's totally fine using my name and the company.

I: Okay, thank you so much.

**0:46-1:49:**

I: To begin with, I would like some general information about your business. **How would you best describe your business and what you're doing?**

P: Right, okay. So uuhm. Our business is a B-to-B (Business to business) company focusing on marketing. Our product specializes in delivering out of home advertising in a transportable fashion. To briefly introduce the product, it is actually a big screen, where ordinarily they are stationary and non-transportable. We made it transportable, and made it more in view of the public eye. How we did this is that we had a screen actually transported onto the back of a person. For example when you walk in the inner city there is a screen on a person amongst the people, instead of it being stationary. That is our concept.

**1:42-3:08:**

I: Yes, very interesting concept, new, modern and cool. So, just to develop a little bit further on that **what does being a startup mean to you?** I know that you consider yourself as a startup, even though I know you are an under division of a different company.

P: Yeah, we have an under division of a media production company. Well, to answer your question about the startup concept. It's always. It's an interesting phase; let's say it like that. The biggest problem that we are facing is trying to establish some sort of trust regarding the bigger companies. A lot of companies get advertisements calls. The biggest issue with being a startup is to create networking.

**3:09-5:16:**

I: Okay, so moving into a little bit more on entrepreneurship. How you developed your concept and how you differentiate. I just want to ask **what do you do differently from others that are in the same field of business as you are?** I know that you are the field of media marketing, but what is it specifically that you do differently?

P: Great questions. So how we differentiate is that our product delivers a new kind of looking at how to market yourself in form of advertisements. The way we do this is we allow people to interact with the screen, since it is a person walking. This has not been seen before. Everything that has been done is either by car, so not very interactive with the public or stationary screens. The big problem that you see with these screens is that people are used to commercials everywhere. A brain reflects on what to focus on during a walk, so they will not be as quickly interested in commercials that are stationary. What needs to be created is some sort of movement or some sort of human interaction. Those interactions are always what convert best in terms of durability and remembrance. That is why we differentiate. We have a person walking with the screen, which is creating these different interactions with the public. You also have it on the back, so when people are walking on their daily routine, they cannot just pass by the screen for a second and it's gone. The screen will follow people in a certain amount of time, where they will either have to move faster or take a different route. This creates a possibility where you can have ads that are longer than 1 second.

**5:17-6:47:**

I: Very interesting concept I must say. So **how would identify this as being entrepreneurial?** If you have to define or develop on that term.

P: Let's see here, I am trying to figure out exactly how to say it. Just 2 seconds. I'll try. Well yeah, so in entrepreneurial sense I think it is a lot about attitude. You are talking about what it is to be an entrepreneur or how to work as one. So, what we did is to try something new that the market had not seen before, and tried very proactively within the organization. It is very important as a startup that you are very open to new ideas, as you try to fix problems or at least create another possibility that wasn't seen before. I think that whole sense of it is what defines us as entrepreneurial, to innovate already existing ideas and have the spirit to make it happen. Be more proactive than I think a lot of people would. I think that is the whole sense of it. I don't know you have further questions.

I: No, I completely agree. It's a very good answer.

**6:48-10:51:**

I: So, a little bit about your organization. I want to ask **how you best describe your organizational structure and information management**, so how you use your business systems to interact and provide feedback between each other within the company, but also processes and sub-systems for example?

P: Yeah so, I think it is a good question. I think at the moment when our startup is small our communication is at hand. We have an office where we talk daily. Once a week we have a brief information meeting where everyone can gather around,

we either have a problem, but right now we are only about 3 people. So it is very easy to communicate because we are only 3 people. Doing it in terms of customer relations, we focus a lot of our previous media on the other company and streamline it. We have a lot of talks with the marketing companies of big corporations. Every month we call back. For example, our customers 'Carlsberg' and their marketing team. We have had dialogues with monthly, because there needs to be a constant communication with the marketing company, as they have to provide feedback to the corporation. I hope that answered your question, otherwise just say it again.

I: Yes, for sure. You said you are 3 people in the company, so I guess it's Ramus and Frederik and?

P: I am Rasmus, and then Frederik. And the other guys' name is Valdemar.

I: Your division in the organization itself is between you 3, I can see from what I've researched about the company is that you are both equally in the company. You are both administrative directors of the company? You don't have any role divisions saying you're the CEO, CFO etc.?

P: No, well. There can only be 1 CEO. Also when registering, so I am the CEO and he is the CFO. It is of course big names, but we are doing everything together. The only thing we are doing separately is also administration, so bookings of accounts and sending into Tax and VAT. Otherwise we are very 50/50 with what we are doing. Valdemar is more oriented with support and facilitating events, to find a place with batteries and practical oriented, whereas, we are more sales oriented.

**10:52-12:12:**

I: So it is a very flat sort of structure you have within the business? To talk a little bit on your supply chain, **how does your business for example create value, or generate value?**

P: So, to talk about our supply chain, we don't have any suppliers. Our main suppliers in the beginning are from creating the screen. So those are a lot of different suppliers, but once you have the screen it facilitates itself. The value that it creates is in terms of marketing and getting people's attention on different products. We have had Tuborg's 'Julebryg' (Christmas beer) on the screen, where the value is to create attention on the streets. The whole talk about how to market is to not neglect the out of market advertisements. There are 5 different channels for a customer to make a purchasing behavior, and we are basically just trying to facilitate 1 of them.

**12:13-13:18**

I: I don't know how much you've talked about this, or within this field of scope. But what is your but **what is your business's relationship with the term sustainability?** Is it something you consider or?

P: Yeah, we definitely consider it. Also during the course of 2019 where it was very prevalent. Essentially it is a good question. We are digital in the form that we have a screen and do not print paper, so in that term we are sustainable. 1 screen can be used for countless of years, but we did not dare to put ourselves in the market for being fully sustainable. We need to make some final adjustments, before we can take on that term, but we definitely have it as a future meeting.

**13:19-13:25:**

I: So it is something that you have touched upon a little bit?

P: Yeah, definitely.

**13:26-14:37:**

I: So **how is your business considering sustainable actions in the future?** Because I know that you said yourself it is a trending market. It is something businesses are looking a lot into, and want to market or strategies with in the future. So **how do you cope with these future challenges that you might face in terms of incorporating sustainability within your organization?**

P: That's a very good question. It is still something that we have to figure out, because our product is essentially better than a lot of other marketing agencies, but also less sustainable than for example digital marketing. So our sustainable thought is more to rely on reusability, instead of making everything sustainability. But of course to making yourself seem sustainable in these times is very important, so we are looking into ways of changing our view or our DNA to make it more clear. We have yet to figure out the code, or correct answer.

**14:40-20:23:**

I: I don't know if you are familiar with these, but **do you identify with any of the SDGs in particular?** The ones that the UN came out with in 2015, the 17 SDGs.

P: Yeah, so I definitely know a bit about them. One of our production companies has made it for. You came from CBS, right?

I: Yes.

P: Yeah, we made a video for you once about the SDGs, but we haven't taken them specifically. I am just looking at them now to refresh, but it would probably be something with 9 about innovation and infrastructure, but we haven't looked at it yet.

I: Very nice to talk to you about this and going through all of these, as I said it wouldn't take more than 15-20 minutes and it did take 15 minutes.

P: Ahh, that's great. It is done.

I: Yes, I just had a few short questions and just wanted to know what a startup in your position is doing to sort of envision their mission and vision into the world, and how you deal with these terms, and if you've heard about them try to

incorporate them. And also your systems within the business itself, so it is super interesting to hear it from a proactive company like yours. Just a last question that I thought about during the interview, you said that you develop these screens that people walk around with, so customers become more aware of the campaign and sort of interact with it? How long of a life span does one of these screens have? I could see it as being sustainable because a 1 time purchase has a life span for 10-20 years, and you would not have to produce them every month and use resources that way. I could assume that you are a lot more sustainable in that sense than other media agencies.

P: Good point, I can definitely reflect on that. Because it is true, 1 screen has a life span of about 10 years, so on that point you are right. That would also be what we would try to market. Our biggest problem is our battery-situation, which has a shorter and shorter life span and would have to be repurchased.

I: The living time for the battery is decreasing, yes.

P: Yeah, it is like a battery in a phone, so it loses batter life. Like you say, we don't have any 'spill' in the monthly basis as you said.

I: I don't know if you've considered this, but I talked to the company called 'RenSti', which is also a Danish company that calculates the CO2 emission per person or per company and like that. I just thought it could be an interesting idea to talk to them if you want to calculate how much emission you are using to a traditional marketing company. Since they try to put numbers on being sustainable.

P: Yeah, yeah, yeah, that's actually a great idea.

I: Because I know it must be hard to make a marketing company sustainable in that sense that you tried to describe.

P: That's great, that's actually very valuable input. I am just looking it up as we speak, because it is good to get some numbers, since it's not bullshit.

I: Yes, to put it into something more tangible.

P: It is about have some concreteness, so thank you.

I: Yeah, no problem. Lastly, do you know of any other companies I can talk to that are in the startup business that you might have connections to?

P: Yeah, I am actually starting another company, but it's not out yet. Otherwise, I will think about if I have someone I know. Definitely.

I: Thank you so much for taking the time to do this interview. It means a lot and provides a lot of value.

P: Just contact me if there is anything else, or if you need an update on something.

I: Cool, thank you. Have a good day.

P: You too.

## Appendix 9 – Transcribed interview with NSOS 2

### Interview with Johannes Dolle from Plartform at CSE

**Interview date:** 29.03.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Johannes Dolle**

**0:00-0:14:**

I: Is it okay that I can record the interview, so I can transcribe it and use you and your company name?

P: Sure, sure.

I: Okay, thank you.

**0:15-0:47:**

I: Just a general or informative question to begin with. **How would you best describe your business?**

P: So, Plartform has found a loop in the market. We are doing an online platform for inventory for museums, where museum curators can access an international database for inventory lists to see what other museums have as inventory.

**0:48-1:52:**

I: Okay, that's also what I could understanding from reading on your website. That you grant access to internationally un-exhibited pieces. Very interesting. Moving into the next question, **what does being a startup mean to you, specifically?**

P: I think being a startup means to iterate, to start somewhere, which can be something completely different. Go with the flow and put in a lot of work and uncertainty and iterate, iterate, iterate. Be in contact with a lot of people and try to contact the experts and iterate and go with the flow. Being a startup means to adapt to uncertain information, and have a feeling while creating a startup to reinvent yourself.

I: Very good way to put it as well.

**1:55-4:42:**

I: Moving further into a little bit on entrepreneurship, **what do you do differently from others that are in the same field of business as you are?** I don't know if you have any competitors identified yet? How do you stay unique in this market?

P: Yes, that is a point where it is pretty critical at the moment. We participated in a funding a hard-tech funding. We were participating together with 3 other DTU students that were programming our homepage or our tool and within that program there were an investor who participated in Artland. Artland is what we would consider as our biggest competitor, which is a Danish startup as well. They are approaching the market differently, from the private side. They are looking into private art managers/investors and their art-pieces. Obviously the money is at the private side, so we are not going for the money by contacting curators. Our scaling opportunity is the private people. We want to make money with a private art investor who lends the art to someone (ex. A bank), the bank pays this person for lending it (ex. A Picasso). We are facing a huge problem, because the private investors are super blocked up and do not want to talk to you. Only discrete people know where these pieces are. To come back to your question, we are tackling it by going through the public market and getting trust from the private market, where we will make money eventually.

**4:44-6:04:**

I: Very interesting. So **how does this approach disrupt the current business?**

P: Yes, there has never been a tool like that. Currently what museums are doing is looking up art pieces in magazines and call up experts or museum directors, in order to find out where certain pieces are that they need. It is extremely analog, decentralized and personalized. You need to have personal contacts. Through Platform, it is the first time that anybody puts together a database of a million/billion dollar business, centralizes all the data and puts it into an accessible form. I would say that is the disruption.

I: **Would you also identify this as being entrepreneurial?**

P: Yes.

**6:05-11:56:**

I: So, talking a little bit about your system. But **how you best describe your organizational structure and information management**, so sort of the system that you use to provide feedback amongst each other and how you organize or structure your business?

P: So, my fellow student Paul and I started the whole thing. After 1-2 months one of our best friends Max actually joined. We were 3 highly motivated people. We really wanted to focus on the product side, and then we scaled up as we participated in the hard-tech and became 6 people. It is quite interesting being 6 people from 5 different study courses and 2 different universities. It is extremely cross-disciplinary work, because you have to figure out what the language is for the DTU students that are programming and what is our language. So, we use tools like Trello, we use very regular meetings for every week. We divided the work, so everybody has a contact person concerning clients or product development. Then 1 person is overlooking the whole operation, so I am in charge of keeping it together and strategy aligned. In total that took us 6 months + 4 months to align expectancies, where we even tried a road-map, however that

didn't work, because entrepreneurship is all about, "let's see what comes tomorrow". Every day you have to see who contacted, so it is more a daily/weekly thing, like what's up this week.

I: Very cool way to organize it, just go with the flow and day-by-day, instead of trying to plan and structure everything. Okay, so I don't know if you have developed a supply chain yet or if it is under development, but just a quick question on that. **How does your business for example create value, or how are you supposed to generate this value in the future?**

P: You mean, monetary-wise?

I: Not only monetary, it could also be for the customers, for the clients, for the museums, for the public, any kind of value that you can see your business is going to generate in the future.

P: Yeah, okay. So, through our platform you can enter a hidden area. It will be a subscription model, so the curators have to pay a certain fixed amount per year, where they can search for art-pieces in visual forms etc. That is kind of how we create the value. However, value is interesting, because our customers are most of the time different from our clients. We talking to the Swedish/Norwegian government, so we are selling it to museums, but the user is somebody else (the curator). We are offering our customers, the museums for example that they can save up to 1/3 of the curators' time. Because now they spend 50% of their time researching, and doing it analog, where we can reduce that to 20-33% with our platform.

**11:57-14:06:**

I: **How do you deal with an organizational strategy to deal or cope with future challenges in this market?** So, for example lets say copying of art pieces becomes very easy in the future and you cannot differentiate between a 'real' or a 'fake', but people are making money through your platform with a fake piece. How do you deal with these future challenges that have not been completely uncovered yet?

P: That refers to one of the first questions. It is a day-by-day thing. We stumbled upon so many questions and what we did when we stumbled on a question that shook us and wanted to stop. We drew baselines. So, the idea, do we believe in it? Yes. Could it work? Yes. And then we go up, up and up. Until we come to where the problem arises, we brainstorm how we can tackle the problem. In the whole iteration process and entrepreneurial process, challenges are going to arise no matter what. All the time, and every day. The most important thing is keeping a micro perspective of the organization and idea, and think how do I iterate, iterate, iterate. Or when is it time to throw away the idea.

**14:08-15:27:**

I: I don't know if you have discussed this, but **what is your business's relationship with the term sustainability?** Is it something you incorporate or have discussed in any way?

P: Uumm, sustainability, yeah. We can't really say that we are specifically sustainably oriented, but we would count ourselves into SDGs. I think it was education and something else where we could be part of the whole digitalization on making processes easier or leaner. Museums have requirements to display their art publically, but they can only display 10% of what they have as inventory, and 90% of the art pieces are hidden. Through us, they can loan out pieces easier, so that is our sustainability approach.

**15:28-15:40:**

I: So you are kind of identifying with sustainability goal nr. 4, quality education?

P: Yeah, I think that's what came to mind. Also another one, but we are not putting it onto our flag.

**15:41-17:18:**

I: So **how is your business sort of considering sustainable actions in the future?** In terms of your business style or competitive advantage. Is it something you are going to put on your flag at some point?

P: No, I don't think so. Actually I take that back. We should. Because, while competing in the DTU hard-tech, we were competing on certain borders with other incubators, venture capitalists etc. Especially social entrepreneurship, which we definitely see ourselves as, which is a huge point to implement. For example, they focused a lot on the SDGs at the hard-tech, and if it did not come across strongly they did not really invest in you. Nevertheless, I do not actually know how to push it, or invest in it to make it bigger.

**17:20-18:46:**

I: So, **what are your own reflections on supply chain management and how entrepreneurship can help to innovate**, or for example assist current supply chains in the future to become more lean?

P: So, we are a service, so we do not really have a supply chain. As a scaling option we are also looking into innovating exchange of art. So if museum A borrows a piece from museum B, how is it getting from A to B, since it is a very analog market and very discrete. Nobody should know when it is going to be moved. We believe that with new technologies we can really disrupt this market even further, if that counts as supply chain, then there are a lot of project we can tackle and we are going to tackle.

I: That is pretty much it. Thank you for your time and that you can help a fellow student out.

P: Sure.

## Appendix 10 – Transcribed interview with NSOS 3

### Interview with Levi Yosef from Leaty at CSE

Interview date: 06.04.2020

**I: Interviewer (Mathias Rolf Jensen)**

**P: Levi Yosef**

**1:12-2:28:**

I: Can you hear anything?

P: Yeah, now I can hear you without a problem.

I: Okay, perfect. It's good to finally meet you.

P: Is it okay if I have breakfast while we have the interview?

I: Yes, that's totally fine.

P: Let me just switch rooms.

I: Yeah, sure.

**2:30-3:27:**

I: I don't know if you saw, but it is recording the meeting.

P: Yes, I see it and it's completely fine with me.

I: Cool. It's okay that I use your name and your business name for transcribing the interview and using it in my thesis.

P: Yeah, that's no problem at all.

I: Alright, perfect. Let's just jump right into it. **How would you best describe your business and what you're doing?**

P: So, Leaty at this point at the point of the last iteration is a student engagement platform that predicts which activities and educational offerings engages the specific students and to a certain extend. So, we help students in guiding their professional development more focused and with more control.

**3:28-4:31:**

I: Okay, that's also what I gained from reading on your website, but it is nice that you can point it out for me. Just a little bit about being a startup, **what does being a startup mean to you, specifically?** And what is your current title in this company? You are co-founder and CEO?

P: Exactly, I am the co-founder and CEO. What does a startup mean to me, at this point? I hope I understand the question correctly. So for me it is a project that I want to do, because I saw a problem that I could solve, and the solution that I have in mind is a solution that really excites me. I see a huge impact potentially coming from this, if we prove the concept and business. For me this is a journey I want to go for, and I have a feeling that I am fairly capable doing project like that. And this is my way of trying it out.

I: Okay. Very cool, and this is your first business startup?

P: Yes, exactly.

I: Cool.

**4:33-6:42:**

I: Moving a little bit more into entrepreneurship, I want to ask **what you do differently from others that are in the same field of business as you?** I know you are not the only platform that is advising students on how you can use your skills in the future.

P: So, are you asking what is my business doing different from others, or what am I as an entrepreneur doing different from others?

I: I am asking what your business is doing different from others. Kind of how you differentiate from other businesses.

P: We differentiate from other businesses through the data we are using, so at the end of the day we are developing an algorithm that understands which kind of tasks match your learning and which kind of tasks match your engagement style and profile. This is data that we need to collect specifically, since nobody is collecting this data yet. We need to try to find a way that the users are open to give us this specific data, so we learn from the experience of the users, rather than take their CV, and trying to predict. Just because you have been an analyst at Deloitte, it does not necessarily mean that you have the same skills or interest than other analyst from Deloitte. So we try to get more data accurate and from the human center city than a profile. In short, we are using biometric data.

I: Okay, so you are trying to make more capabilities between people who are hiring and who are being hired?

P: Kind of. It goes in that direction definitely.

I: It is very cool and that's why I wanted to talk you and contacted you a couple of times.

P: Yeah, sorry. Lately, I do not email the ones that are the highest priority.

**6:44-7:18:**

I: Keeping it a little bit more on track. I'd like to ask, if **would you would identify this as being entrepreneurial?** What your business is doing?

P: Definitely. So what I understand entrepreneurship to mean is creating a solution that solves a problem in a rather innovative way. So doing something different than competitors do, and try to improve the system behind it. This is what I am trying to do, so I would call that being entrepreneurial.

**7:19-9:31:**

I: So, very nice that you were addressing systems, because that is my next topic, it is systems theory. Maybe you have not heard about it, but it seems like you have a deeper understanding of a lot of these concepts. My next question is **how you best describe your organizational structure and information management**, so pretty much now at this point, how you are moving information around within the company and how are you structuring from a startup perspective?

P: So, I scale down pretty much all aspects of the business, so we are back to two people, two co-founders. The way we handle information is through 'Slack', we have different channels and we try to divide them by topic. We try to create minutes after every meeting. My own knowledge platform, I use Microsoft notes where I divide all the topics, knowledge, users, research, so I have everything divided by topic. I use a lot of minutes in terms of documenting what happens in the different meetings. I use lean startup models, from the business model canvas (BMC) to customer value proposition (CVP), and I use CVP to map out the value proposition and the customer fit to the product that we have. And then the next stage we are currently in. Prototyping and testing for that I will use CVP again, and try to see which other will match for the specific location. The rapid prototyping is where we give out a prototype and try to adjust it while people are using it. There is no specific framework for that, but the methodology for that is called rapid experimentation.

I: Okay, so it is kind of beta testing? To some extend.

P: Yes. Exactly.

**9:33-11:33:**

I: I know you said you don't have a supply chain, but you talked a little bit about generating value, so my next question is, **how does your business create value, or do you generate this value?** Not in a monetary way, but what you get out of it?

I: So, the way I picture it is by. I have the following example, the way that most of us are making decisions about which job to take is by looking at our own experiences and what worked and what didn't. Based on what worked, we are trying to replicate that experience. What didn't work, we are trying to exclude this from our future experiences. So, most students are not really good at understanding their own experiences. That is already the first value that we give, we help to use own data from experiences, but then we go one step further. Since

we have experiences from all users, ideally at some point several thousands and hundred of thousands, we can create segmentations and groups. We can profit from experiences and from others, who have a similar profile to you but did other experiences, to recommend and create a fuller picture of what might excite you in terms of tasks and bigger purpose. That algorithm or data that you wouldn't have access to is the value that we create.

I: Okay. So, you kind of gain data from the users and based on their personal data.

P: Exactly, the network is much of what our value will give and of course the algorithm behind it.

I: Okay, very nice.

**11:35-13:55:**

I: I don't know how much you have incorporated this into your business, but **what is your business's relationship with the term sustainability?** Is it something you completely exclude or is it something that you include a little bit. Or have you just not discussed it at all?

P: No, we haven't discussed it. We do not have a big or large impact on the environment, but we are working with personal data, so ethics is a main topic of what we need to consider creating solutions that profit and benefit the user, and not the large company behind it. It is something that we keep in mind. Transparency is a key pillar and key values that we work with. All the data that we get is something that the user knows exactly that this is data that is going to be used. We won't engage with, or sign up with your linked in profile so we get all the data from your contacts. We will work with, uhm, we try to give the users as much control as possible. And then the way we use this data should always follow the principles of decreasing biases, so we don't create a racists or discriminating against certain ethnic groups. We have an expert for that, who is consulting us on this matter and then again through transparency we don't give out data to anyone, where the user haven't approved it.

I: Okay that is good to know, so you are not the next Facebook or anything like that? Where you sell the users data off to marketing.

P: Facebook is kind of our anti-role model.

I: That is a good way to put it.

P: They did all the mistakes, and now we are trying to do it the right way.

I: That's nice. In a professional platform, rather than a social platform.

**13:56-18:22:**

I: Lastly, **how do you identify, or do you identify with any of the SDGs in particular?** Since, you did talk a little bit about creating equality or a gender bias. I don't know if you looked at all of them, but there are 17 goals.

P: Mmh, the ones. As far as I know. 11 is focusing on industry and number 4 is focusing on education. So right now we are identifying ourselves with number 4, because we claim that we can understand and allocate correct courses to users with a matching profile. That way we will equalize and create equal opportunities for everyone and all users to get in contact with the most beneficial courses and for their profile. In that regard it doesn't matter where you are and which social group you identify with, all the education offerings will be on that platform and allocated based on an algorithm and not on social metrics. We hope that we can flatten the curve in terms of who is getting the right education.

I: Very interesting to talk to you specifically. I told you it wouldn't be very long.

P: I hope you can work with the answers.

I: Thank you so much for your time. I will send you an email with the transcription if you want to.

P: Uuhm, I wouldn't need that specific email. I would be interested in the results that you are getting.

I: Sure. What I specifically do is that I compare startups at CSE from a case study perspective and compare companies with a core focus on sustainability and companies without a core focus on sustainability. To come up with an idea of what a modern startup is today, how they are innovating the industry and disturbing the old school of thinking. I am trying to challenge the back-in-the-day business model startup, so your company is very innovative, modern and on time. It is something I can only see working at this point in time, due the technological advancements and engagement with online platform.

P: We might still be a little bit too early with our platform at this point in time.

I: You are in beta-testing, so it is interesting to see if there is a need or an interest for it at least.

P: Yeah, thank you.

I: I will of course destroy the evidence 30-days after my hand in, so no need to worry about the data.

P: You have a very good Monday.

I: You too, likewise.

## Appendix 11 – Sustainable Development Goals (SDGs) from UN

### Sustainable Development Goals



Retrieved from: <https://sustainabledevelopment.un.org/?menu=1300>

## Appendix 12 – Overview of interviews (Excel file)

### Round 1 of setting up interviews

#	Startup	Sent	Response	Meeting	Time	Name
1	Secondly	20/03/20				
2	Fair Green	20/03/20	20/03/20	24/03/20	13.15	Emmanuelle Dyer
3	Lookbooklocal	20/03/20				
4	Pinploy	19/03/20	20/03/20	24/03/20	14.00	
5	WooWay	20/03/20				
6	Plartform	20/03/20	27/03/20	29/03/20	13.00	Johannes Dolle
7	Glowspace	20/03/20				
8	HocSolutions	20/03/20				
9	Leaty	20/03/20	21/03/20	06/04/20	09.30	Levi
10	Groviac IVS	20/03/20	22/03/20	26/03/20	13.00	Rasmus Nikolaj Doolengs
11	RenSti	20/03/20	20/03/20	25/03/20	13.45	Oskar Dahl Hansen
12	BlueLobster	20/03/20				
13	Make It Good Again	20/03/20	23/03/20	25/03/20	13.00	Sara Holt
14	Odd Form	20/03/20				
15	Legacy Group	27/03/20				
16	GetBarry	27/03/20	29/03/20	03/04/20	13.00	
17	Grim	27/03/20	30/03/20			Hanna

	Finished contact and send transcribed interview
	Contacted/response/confirmed meeting
	Did not respond
	Reschedule
	Cancelled

### Round 2 of setting up interviews

#	Startup	Sent	Response	Meeting	Time	Name
18	Turn Ivy	02/04/20				HELLO@TURNIVY.COM
19	Skitseprojekt	02/04/20				HEJ@SKITSEPROJEKT.DK
20	OOMAY	02/04/20				INFO@OOMAYHOME.COM
21	Milveo	02/04/20				m.guentert@milveo.com
22	Questionlead	02/04/20				MIKKEL@QUESTIONLEAD.COM
23	Trippy	02/04/20				HI@MAHDI.WORK
24	FurBySofie	02/04/20	02/04/20	06/04/20	13.00	SOFIEBIRKEROD@FURBYSOFIE.DK

Interview List		
#	Name	Profile
2		
	<b>Company profile</b>	A cool, young woman with an entrepreneurial spirit, good business skills and adaptability. She served as an excellent sparring partner in discussing. Printing site and service that promotes a company brand through sustainable products
		<b>From website:</b> The 12th Sustainable Development Goal at the heart of our mission
13	<b>Name</b> Sara Holt	<b>Profile</b> CEO
	<b>Company profile</b> Make it Good Again	Sara is administrative mastermind. Despite being in control, she is also awesome at boardgames Company that lets repair businesses help to repair people's things, instead of throwing them out and purchasing new things
11	<b>Name</b> Oskar Dahl Hansen	<b>Profile</b> COO & Founder
	<b>Company profile</b> RenSti	Innovative sole, who has been part of shaping the project from the start, but has also done a great amount of the starting work to make RenSti succeed and become what it is today. Calculates CO2 spending based on parameters and compares it to the average. Then suggests a way to either outweigh or replace this amount of CO2 through various projects CO2-kreditter / CO2 credits Clima project: Planting trees / helping the people who plant trees Bulk-buying coupons to make the largest impact
10	<b>Name</b> Rasmus Nikolai Doolengs	<b>Profile</b>
	<b>Company profile</b> Groviac IVS	Rasmus is adm. Director and has experience within visual marketing Our mission is to create a new digital marketing-tool, with a vision to offer the best form of marketing via mobile ads on the market
6	<b>Name</b> Johannes Dolle	<b>Profile</b> Johannes is Co-founder
	<b>Company profile</b> Platform	Johannes in doing his masters degree in Strategic Design and Entrepreneurship from CBS & KADK and has shaped this startup with his fellow student Paul Jaeggi from the same study programme. Platform is an online database showing inventory lists of museum collections & privates and their availability for exchange or loan.
16	<b>Name</b> Christophe Lephilik	<b>Profile</b> Head of Growth & CMO at Barry
	<b>Company profile</b> GetBarry	The vision for Barry is to provide danes with knowledge about when the electricity is greenest and cheapest, in order to make use of electricity in the smartest way possible.
9	<b>Name</b> Levi Yosef	<b>Profile</b> CEO
	<b>Company profile</b> Leaty	Based on your individual profile we will connect you with educational opportunities in your close environment that match your competencies and interests, for you to become the most capable version of yourself.
24	<b>Name</b> Sofie Birkerød	<b>Profile</b> CEO
	<b>Company profile</b> FurBySofie	FurBySofie is an online fur store that offers a wide variety of fur coats and accessories with a focus on high quality beautiful designs and sustainability.

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### Front-page images:

- Light bulb: <https://greenmountainsoftware.com/our-work/>
- Startup logo: <https://www.shutterstock.com/da/image-vector/vector-creative-illustration-business-startup-word-437678707>
- Green top bar: [https://ehsj.dk/startup\\_explorer](https://ehsj.dk/startup_explorer)
- CBS & CSE logo: [https://cse.cbs.dk/entrepreneurial-day/logo-cbs-cse\\_entrepreneurship-in-society/](https://cse.cbs.dk/entrepreneurial-day/logo-cbs-cse_entrepreneurship-in-society/)