Guidance towards the Goals

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DIVISION OF INNOVATION ENGINEERING | DEPARTMENT OF DESIGN SCIENCES
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MASTER THESIS

Guidance towards the Goals

Key factors for SDG assessment at start-ups and a review of existing tools

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Abstract

The private sector is expected to take ownership and contribute towards achieving the UN's Sustainable Development Goals (SDGs), and considering the innovative nature of start-up companies, they can be seen as key players. Though, they lack the guidance needed to assess the performance within the SDGs. Moreover, the literature within the field of sustainability assessment tend to focus on larger firms. This thesis aims to increase the knowledge about specific characteristics for start-ups and how they affect the assessment processes in the context of SDGs. This is done through an extensive literature review and exploratory interviews. The study implies that time and knowledge might be more limited in the context of start-ups, however it also exemplifies the benefits of being more flexible than established larger firms.

The literature review and interviews laid the foundation for ten key factors that are highly important when conducting a SDG assessment, from an operational perspective as well as factors needed for an adequate assessment. Thereafter, four different SDG assessment tools are evaluated against these ten factors. The result presents the tools strengths and weaknesses as well as their application within the assessment process. It can be seen that the tools serve different purposes and that the choice of tool depends on the specific challenges faced by the start-up. None of the tools cover the importance of considering interactions between the goals. Moreover, it is not clear what indicators should be used in a sufficient sustainability assessment. This is further discussed together with suggestions regarding how the start-ups should approach these shortcomings, supported by existing research.

Keywords: sustainable development, sustainability assessment, sustainable development goals, start-ups, assessment tools

Sammanfattning

Den privata sektorn förväntas ta ansvar och bidra till att uppnå FN:s hållbarhetsmål. På grund av start-ups innovativa karaktär kan de ses som särskilt viktiga aktörer i utvecklingen mot hållbarhetsmålen. Idag saknar dock start-ups den vägledning som krävs för att på ett adekvat sätt kunna arbeta operationellt mot målen. Dessutom tenderar den allmänna litteraturen kring hållbarhetsbedömning att fokusera på större företag. Syftet med detta examensarbete är att öka kunskapen om hur specifika egenskaper hos start-ups påverkar deras arbete mot hållbarhetsmålen. Genom en omfattande litteraturstudie och explorativa intervjuer visar studien att tid och kunskap är begränsande faktorer, i större utsträckning än hos etablerade större företag. Dock belyses också fördelar specifika för start-ups, så som deras flexibilitet.

Vidare lade litteraturstudien tillsammans med intervjuerna grunden för tio nyckelfaktorer som är viktiga vid en analys av företagets arbete mot hållbarhetsmålen, både ur ett operativt såväl som teoretiskt perspektiv. Fyra olika verktyg, utvecklade för hållbarhetsbedömning inom FN:s mål, värderades sedan mot dessa tio faktorer. Resultatet visar på verktygens respektive styrkor och svagheter samt deras tillämpning inom olika steg av analysprocessen. De tjänar olika syften och valet av verktyg beror av de specifika utmaningar som respektive start-up står inför. Samtliga undersökta verktyg saknade dock analys angående interaktioner mellan de olika hållbarhetsmålen. Dessutom gav de inte tillräcklig med vägledning kring hur mätningar av målen och val av indikatorer ska utformas. Dessa brister diskuteras i arbetet tillsammans med förslag på hur de kan hanteras med stöd av befintlig forskning inom området.

Nyckelord: hållbar utveckling, hållbarhetsbedömning, hållbarhetsmålen, start-ups, bedömningsverktyg

Acknowledgments

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Lund, May 2021

Isabelle Nilsson & Tilde Ragnarsson

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List of Acronyms and Abbreviations

Term	Definition
GRI	Global Reporting Initiative
KPI	Key Performance Indicator
MDG	Millennium Development Goals
NGO	Non-governmental Organization
SDG	Sustainable Development Goals
UNGC	United Nations Global Compact
UNOPS	United Nations Office for Project Services
UNOPS GIC	UNOPS Global Innovation Centre
WBCSD	World Business Council for Sustainable Development
WHO	World Health Organization

1 Introduction

This chapter introduces the reader to the subject background of the thesis as well as its objective and research questions. The chapter also sets out the delimitations and the structure of the report.

1.1 Background

In 2015, the General Assembly of the United Nations adopted the 2030 Agenda and announced 17 Sustainable Development Goals (SDGs). The objective of the SDG framework is to meet the urgent challenges facing our world; ranging from ending world poverty to combat climate change. Compared with their predecessors Millennium Development Goals (MDGs), the SDGs cover more ground and also lay out a more comprehensive approach in terms of actors responsible for achieving them (UN 2021a). It is widely accepted that businesses are expected to take ownership and play a critical role in the achievement of the SDGs (Agarwal et al. 2017; Rosati and Faria 2019; Scheyvens et al. 2016). Today, a lot of companies are aligning their strategies with the SDGs, and many of them see the opportunities rising from doing sustainable business. However, there are still several challenges to overcome, and companies experience several difficulties when it comes to assessing progress made towards the SDGs. (WBCSD 2018)

Smaller companies, such as start-ups, play a crucial role in accelerating sustainable development, considering their disruptive technologies and innovative profile (Fichter and Clausen 2016). However, most of today's literature in the field of managing sustainability assessment focus on already established firms (Halberstadt and Johnson 2014; Trautwein 2020). This becomes a problem since the characteristics of start-ups differs from larger firms regarding both their challenges and opportunities (Schaltegger and Wagner 2011). They are subject to rapid change and usually have less resources in form of capital, knowledge and time. On the other hand, there are also several advantages for start-ups working with sustainability assessment; smaller size, less hierarchy

and higher flexibility. (Balachandran et al. 2011; Wickert 2016)

There seems to be a gap in the knowledge of how the SDGs should be implemented and how start-ups can evaluate their impact towards them. Several tools have been developed to support companies' work with the SDGs, but it can be difficult to compare and choose among them. Moreover, Hörisch et al. (2015) concludes that smaller businesses in general are less informed when it comes to which sustainability management tools that are available. To be able to develop start-ups' sustainability work further, it would be helpful to get more insight about those tools, and how they in an effective way could be incorporated in their business.

1.2 Purpose

The purpose of the thesis is to evaluate different tools that can be used by companies to assess performance within the SDGs. Firstly, the thesis investigates what barriers might affect the operational and strategic work with the SDGs in the context of start-up companies today.

Secondly, it investigates what key factors that are important when conducting a SDG assessment from both an operational perspective as well as from an assessment theory view.

Lastly, the thesis provides an overview of various existing tools and methodologies, and evaluates them against the desired key factors and provides guidance in how to apply them in order to simplify the SDG assessment process for start-ups.

1.3 Problem statements

The overarching aim of the thesis is to investigate how start-ups can use tools to assess their performance within the SDGs.

The overall research question is answered and complemented by three more specific research questions which address different components of the research:

RQ 1.1 How are start-ups working with the SDGs today and what challenges

do they face?

RQ 1.2 Which are the key factors to consider when evaluating the work towards the SDGs, in the context of start-ups?

RQ 1.3 Which existing tools are available for the purpose, and how well suited are they for start-ups?

1.4 Delimitations

This study is focused on start-ups that have sustainability incorporated in their business and are a part of an incubation program focusing on the SDGs. Accordingly, the impact-driven start-ups that have been interviewed in this thesis have a deeper knowledge about sustainability assessment and the SDGs, compared to other companies. The generalisability of the thesis' findings should therefore be discussed both from a perspective of the firm size and the level of previous knowledge before assessment.

Additionally, the start-ups and tool developing companies interviewed are firms registered in Sweden and in Finland, and are consequently reflecting a narrow geographical area.

Furthermore, from the wide variety of sustainability assessment methods, this thesis will focus exclusively on tools chosen by three selection criteria:

- Explicit reference to the SDGs; discard frameworks that focus on sustainability in general, without connection to the SDGs
- Applicability to a broad range of sectors; discard frameworks that are developed for a specific industry/sector
- Developed as a supportive tool/framework for companies; discard conceptual frameworks, developed for academic purposes, NGO etc

1.5 Report Structure

1 | Introduction
This chapter introduces the reader to the subject background of the thesis as well as its objective and research questions. The chapter also sets out the delimitations and the structure of the report.

2 | Methodology
This chapter presents an overview of the research approach along with detailed descriptions of the different steps in the process, including the data collection. Furthermore, credibility of the research and ethics are discussed.

3 | Theoretical background
This chapter gives the theoretical background in the subject area. Firstly, it gives a background to the SDGs from both an academic view and a business perspective. Secondly, theories regarding how to assess sustainability are presented. Lastly, some existing tools for companies working with the SDGs are introduced.

4 | Findings about SDG assessment
This chapter presents the results from the interviews and the literature review and concludes the ten most important factors for SDG assessment in the start-up context.

5 | Evaluation of SDG assessment tools
This chapter evaluates four existing tools based on ten important factors for SDG assessment. Firstly, they are rated and compared on a three-point scale for every factor. Secondly, their functions are mapped against the different steps of the sustainability assessment process.

6 | Discussion
This chapter presents the implications of the results for start-ups and provides guidance on how to choose an appropriate method that fits the purpose. It also elaborates on how to handle some of the common identified challenges. Finally, it includes a discussion regarding future development of SDG assessment tools.

7 | Conclusions
This chapter answers the research questions proposed in the introduction and concludes the most important findings. Furthermore, the contribution to theory and the thesis' limitations are reviewed. Lastly, suggestions for further research are discussed.

2 Methodology

This chapter presents an overview of the research approach along with detailed descriptions of the different steps in the process, including the data collection. Furthermore, credibility of the research and ethics is discussed.

2.1 Research strategy

In order to carry out good and structured research, informed decisions have to be made regarding the research strategy. The strategy should be designed with the end goal in mind, and give an overview of the plan on how to get there. The research strategy consists of three parts: how the research will be approached, how the plan of action will be designed and which goal the researcher hopes to achieve. The research strategy differs from the *research method* which describes how the data is collected. However, the strategy should be chosen so that it works well together with the method. (Denscombe 2010)

2.1.1 Research approach

Quantitative and qualitative research

In general, the research approach can be chosen to be either more quantitative or qualitative. In quantitative research the data is numerical, and is often analysed using the help of computers, which makes it easy to scale up. The quantitative approach is easier to keep objective, since the numbers do not change under the influence of the researcher. However, it is often dependent on the use of isolated variables, making the research more suitable for analysing a few specific variables. In oppose to this, the qualitative research will inevitably lead to more involvement from the researchers and their beliefs, backgrounds and values when collecting and analysing the data. This means that qualitative research often has more involvement from the re-

searcher. The researcher will also need to be close to and gain more detailed knowledge about the data, making the qualitative approach more suitable for small-scale studies. The two approaches can overlap, and in reality, many studies use a mixed method. (Denscombe 2010)

Due to the nature of the thesis, the main analysis will be based on words from interviews and literature reviews, which complies with the qualitative approach. Hammersley (2012) discusses the different methods within qualitative research, highlighting the many definitions provided. He emphasises that a common denominator is that the analysis is based on words rather than numbers, but apart from that there are several strategies to be used during the research process. Some studies focus mostly on literature studies while others involve participant studies or interviews. For the purpose of this thesis, the method used is flexible and iterative, using a combination of literature reviews and interviews as a basis for the analysis. This approach was chosen due to the complexity of sustainability problems, which creates the need to investigate different variables that are neither isolated from each other nor possible to assess using only numerical data.

Inductive, deductive and abductive research

Trochim and Donnelly (2001) describes two broader approaches of reasoning; deductive and inductive. The deductive approach is "top-down", meaning the research starts with a theory as a basis for the hypothesis that will be tested. During the research and analysis, different observations are made that will either confirm or cancel the initial hypothesis. On the opposite, inductive reasoning adopts a "bottom-up" approach - it starts with observing how things work, and the observed patterns are later used to form a hypothesis. From this, the conclusion or theory is formed. Qualitative research is generally inductive, but can also incorporate a combination of the two, which is also the case when using an abductive approach (Edmonds and Kennedy 2017). In abductive research, deduction is used to form a hypothesis, and induction is used to evaluate the suggested idea. After this, abduction can be used to form an explanation and a final theory. Timmermans and Tavory (2012) suggests that abduction is the only one of the three that is innovative enough to form new ideas, whereas the other two only measures a value (induction) or describes the consequences of a hypothesis (deduction).

In this thesis, an abductive approach is chosen due to its flexible nature and

the possibility to keep exploring and observing data at the same time as developing the framework. The abductive research, as opposed to the inductive and deductive, does not move forward from one phase to the next but rather back and forth between different phases. This gives the advantage of being able to alternate between different research activities, leading to a better understanding of the observed data as well as the formed hypothesis and theories. (Dubois and Gadde 2002)

2.1.2 Research design

The research design of this study consists of four main phases: a descriptive pre-study, an exploratory study, an analysis phase and a final phase of discussions regarding the findings, see Figure 1

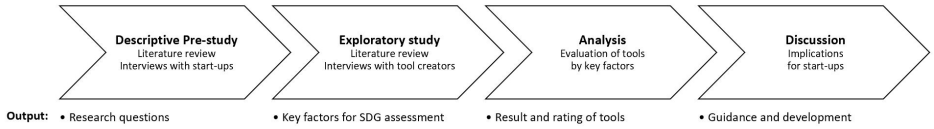

Figure 1: *Overview of research design*

Descriptive Pre-study

Prior to defining the scope and objective of the thesis, a pre-study was conducted. The general purpose of a descriptive study is to get an understanding of a specific topic (Höst et al. 2006). In this case, the aim was to get a better understanding of the needs and challenges around the SDGs in the context of start-ups, since the research questions were not formulated beforehand.

The pre-study involved several literature reviews as well as semi-structured interviews. Most of the articles and reports included were broad and gave insight about previous research done within the area of combining business and SDGs. As the purpose with the review in this stage was to gain knowledge and understanding about the goals and their challenges, main focus was to find a range of information to start with and narrow it down later on. A few larger reports regarding challenges with SDGs were used as a start, and as the problem statement became clearer, literature snowballing as well as search engines was used in order to find information relevant to the specific research questions considered.

To complement the literature review, interviews were conducted with three different start-ups to form an idea of the specific problems companies face within the start-up context. All of the interviews took place over Zoom and were approximately one hour long. Questions discussed can be found in Appendix A. However, it should be noted that the interviews and questions were adapted to the specific start-ups and answers.

The research questions were formed and re-evaluated several times during the weeks of the pre-study as new insights were gained. Initially, the idea was to develop a new framework for companies to use in order to better be able to measure how they perform within one or several of the SDGs. By bringing forward understandable and concrete methods to use when measuring how the company performs, the SDGs could be a more accessible tool to use in the aspiration to become more sustainable for start-ups. However, the result from the pre-study led to several modifications. Instead of developing a new framework, an evaluation of existing tools was found to be a more sufficient way to support the purpose of helping start-ups to assess the SDGs.

Exploratory study

The following phase, after the research questions were formulated, was the exploratory study. The aim was to determine what key factors that are desirable when conducting a SDG assessment, by combining the perspectives from theory about assessment with constraints and important factors from start-ups. The input in this phase was results from the interviews as well as a narrower literature review focusing on sustainability assessment.

To get further understanding about the tools and methods that are available for SDG assessment today, two interviews with representatives from organisations working with developing SDG-tools were held. Through the triangulation process of combining perspectives from both the start-ups as well as the organisations providing SDG assessment tools, the authors got a broader view of the problem.

Analysis

After the key factors for SDG assessment were determined, they were used as criteria for analysing the existing tools. The first step was to pick a relevant scope of tools to evaluate. In order to meet the identified needs from

the start-ups, three selection criteria were defined to discard irrelevant tools from the analysis. Those tools who passed all three criteria, were then tested against the predetermined key factors and rated for their performance within each factor. A three-point scale was used when rating them and the result was presented in radar diagram as well as written format. The radar charts give a quick overview and comparison among the tools. It also made it possible to capture all the various characteristics and present the results in a comprehensive view. Furthermore, the tools' different functions were mapped against the steps of the sustainability assessment process, by using the UNGC management model as a reference.

Discussion

In the final phase of the research design the results from the evaluation of SDG assessment tools were analysed by comparing the results with the findings from the descriptive and exploratory study. Further, a discussion of the implication of the findings of the thesis was done. It included guiding start-ups in how they can perceive the results and use it in their operational work and also putting the results in perspective by discussing the generalisability of the findings. Further development for SDG assessment tools were also discussed as well as how to handle the current short-comings of the tools. Finally, the findings from the study were discussed and validated with UNOPS and their partnering start-ups.

2.2 Data collection

2.2.1 Literature review

An initial literature review helped the authors familiarise with the subject of the study. Höst et al. (2006) describes a literature search process as starting with searching wide, to get a broad understanding of the subject. Thereafter, a selection of articles is chosen for a deeper study and successively followed by a narrowed search for keywords obtained from the selection. This approach was helpful in finding relevant research in the studied field. Another method used by the authors was literature "snowballing", which refers to using the reference list of a report to identify additional relevant sources.

Furthermore, a proper literature review gives perspective on previous research made within the area and what knowledge gaps there are. Hence, the method ensures that new research adds to existing knowledge, rather than replicating it. (Höst et al. 2006)

To find relevant literature mainly two academic databases were used:

- **LUBSearch**: search engine provided by Lund University
- **Google Scholar**: search engine provided by Google

The authors used the following keywords to find sources: *Sustainable Development Goals, SDG tool, Sustainable Assessment, Indicators, Start-ups...*

2.2.2 Interviews

Interview data gathering is a suitable method for data collection regarding personal opinions and experiences (Denscombe 2010), which suited the purpose of the thesis. There are three types of interview approaches; structured, semi-structured, and unstructured interviews. Structured interviews are based on a predefined list of questions that is followed in detail. Each respondent is faced with identical questions. The open interviews are instead conducted in a more free form. A theme or topic is presented and then the interviewee can develop their thoughts. In semi-structured interviews there is a prepared interview guide, however the order and formulations of the questions could be changed during the interview (Höst et al. 2006). Given the descriptive and explanatory purpose of the interviews, they were chosen to be semi-structured in their approach. The chosen structure allowed the interviewees to focus and elaborate further on the areas of their specific knowledge and interest.

The exploratory interviews with the start-ups facilitated by UNOPS focused on fundamentally understanding how they perceived and executed the SDGs today and what challenges they were facing when using them. In order to complement the perspective from the start-ups, interviews with tool creators were held to get insights regarding their experience about usability and considerations when developing a SDG assessment tool.

Before conducting the interviews, interview guides were created (one for interviews with start-ups and one for interviews with tool creators), which can be viewed in Appendix A. Field notes were taken during the interviews. The interviews were also video recorded to ensure that the responses were cor-

rectly perceived and to be able to later analyse them deeper if needed. By using video recording, both verbal and non-verbal communication were captured.

Start-ups at UNOPS GIC

This thesis was conducted in collaboration with the United Nations Office for Project Services. UNOPS has established Global Innovation Centres (GIC) in three different locations globally; the Caribbean nations of Antigua and Barbuda, Japan and Sweden. The innovation centres aim to harness the critical role that public-private partnerships can provide towards achieving the 2030 Agenda. UNOPS Global Innovation Centre in Lund, Sweden was launched in October 2019 and facilitates start-up companies that are operating within the field of sustainable development. By bringing together innovators, entrepreneurs and organisations, they build a community and network to facilitate new ideas. In 2020, an innovation challenge was held in order to find the most innovative and sustainable ideas. Out of 200 applications, five start-ups were then selected to take part in the UNOPS' incubation programme. The start-up ideas were focusing on different solution problems such as renewable energy, ecological plants and seeds, water pollution solutions, batteries, agriculture and weather forecast. (UNOPS 2021)

In this thesis we have interviewed three of the start-ups in the incubation program regarding their work with the SDGs:

- Company 1: Refining marine biomass for cleaner oceans
- Company 2: Electric desalination system for clean water
- Company 3: Biocoating for fruits and vegetables to prevent food waste and substitute plastics

Since the focus of the incubation program was sustainability and especially the SDGs, these start-ups can be considered to have a greater experience and understanding about the SDGs, compared to other companies in the field. Some issues and disadvantages of studying only a few case companies is the generalisability of the findings. It is important to remember that the unique cases are single examples and in order to draw wider inferences from them, the significant features of the case needs to be taken into consideration (Denscombe 2010). Hence, the findings might not be true for other start-ups without focus on sustainability, bigger firms or companies in another country.

However, the case study approach can provide deep understanding of the subject (Höst et al. 2006). The generalisability will be discussed further later in the report.

2.3 Research ethics

The voluntary participants were all provided with information about the thesis and the expected contribution from them. By the start of each interview, the interviewee was asked if the interview could be recorded to be kept only by the authors for transliteration. All interviewees had the possibility to add their own perspectives not addressed by the questions at the end of each interview, and to receive the finished report later on.

3 Theoretical background

This chapter gives the theoretical background in the subject area. Firstly, it gives a background to the SDGs from both an academic view and a business perspective. Secondly, theories regarding how to assess sustainability are presented. Lastly, some existing tools for companies working with the SDGs are introduced.

3.1 The Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) are a framework for sustainable development that defines global priorities and aspirations, also known as Agenda 2030. Sustainable development is most frequently defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." A quoted definition originally derived from the Brundtland report published in 1987. The SDG framework balances the three pillars of sustainable development: economic, social and environmental and range from ending poverty to combat climate change, see the full list of all 17 goals below in Table 2. (UN 2021a)

The collection of the 17 interlinked goals is designed to be a blueprint for a sustainable future and was set in 2015 by the United Nations General Assembly. The idea of the goals was formed already at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. The objective was to produce a set of universal goals that meet the urgent challenges facing our world. The 17 SDGs replaced the previous eight Millennium Development Goals (MDGs) signed in 2000. The MDGs drove progress in several important areas, such as reducing income poverty, providing access to water and sanitation, driving down child mortality and drastically improving maternal health. The new SDGs cover more ground and go deeper compared to the MDGs, by addressing the root causes of the global problems. By doing so, they seek to build on the MDGs and complete what they did not achieve. Furthermore, the MDGs were intended for actions in the developing coun-

tries only, whereas the new goals apply to all and the progress towards the SDGs is monitored in all countries. (UN 2021a; UNDP 2020)

The 17 goals are divided into 169 targets and 232 individual indicators as an instrumental tool for follow-up and review of the progress. Furthermore, UN (2021a) encourages governments to also develop their own national indicators to assist in monitoring progress made on the goals and targets. The SDGs are not legally binding, but both governments and businesses are expected to take ownership for the achievement of the goals. However, countries have the primary responsibility for follow-up and review at the national, regional and global level. UN emphasise though, that the goals can only be realised with strong partnerships and cooperation between all countries and all actors. To further highlight the importance of collaboration, SDG 17 is dedicated for only the purpose of partnerships. (UN 2021a,b)

Figure 2: *The Sustainable Development Goals*

Table 1: The 17 SDGs

	Description
Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable, and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development

3.1.1 Current state of the goals

Now, five years after the introduction, the global SDG Report 2020 shows that the world is not on track to meet the SDGs by 2030. Progress is made in many places, but overall action within the goals is not happening at the speed and scale required. On the 30th of January 2020, WHO (2021) declared the coronavirus outbreak a public health emergency. The still ongo-

ing pandemic impacts the SDGs negatively. Before the outbreak, positive progress within some of the areas were visible, e.g., lower share of children and youth out of school, declining incidence of many communicable diseases, improved access to safely managed drinking water and increased representation of women in leadership roles. At the same time, the report showed negative progress both before covid-19, such as the impact on the natural environment, and especially after the outbreak. Due to the pandemic, the achievement of the SDGs got even more challenging than before. The UN declares that millions of people are being pushed back into extreme poverty and hunger, the health systems are threatened and billions of students are out of school as a result. (UN 2020b)

On the other hand, the report "Sustainable development in the European Union" from 2020 concludes that over the most recent five-year period EU has made progress towards almost all goals. Especially, the report highlights significant progress within SDG 1 (end poverty), 3 (healthy lives) and 16 (peace, justice and strong institutions), whereas most goals are categorised in moderate progress. This does not imply that all indicators are positive, but on a high level the aggregated results are moderately positive. Two goals, SDG 5 (gender equality) and 13 (climate action) have been developing to the worse during the past five years. (Eurostat 2020)

One should though be careful regarding these results, since the EU is not isolated in the context of SDGs. Activities in EU may affect other parts of the world and the trade-offs between goals do not always happen in the same geographical areas. The complexity and interaction between the SDGs, results in a problem that cannot be viewed without the global perspective.

3.1.2 Businesses and the SDGs

One thing that makes the SDGs stand out compared to previous goals such as the MDGs is the amount of responsibility assigned to the private sector. Even if businesses have been discussed to play an important role when it comes to sustainable development for more than 30 years, the development of the SDGs has led to recognising the private sector as a key player in the work towards a more sustainable future (Scheyvens et al. 2016). More than 1,500 companies gave their input in the development of the goals making it an inclusive process with inputs from all parts of society and the world (GRI et al. 2015). Businesses, governments and the civil society are now

seen to share equally large parts of the responsibility, while the MDGs rather stated sustainable development to be more of a governmental issue. Since the private sector, unlike the other two, centralises upon making a profit, there is always a debate regarding to what extent they should be expected to contribute towards the targets. (Scheyvens et al. 2016; Tulder 2018)

PwC (2015) released a report in connection with the announcement of the goals in 2015, discussing the role of businesses and exploring their approach towards the SDGs. The goals are recognised as a new challenge for companies, who are becoming forced to be more transparent, access and review their impact and align their business goals with the government's ambition. Ideally, every business would be aware of their impact on each of the SDGs, but since every industry and company are significantly different from each other, there is no one-size-fits-all. Hence, the first step is to understand the business activities and what impact they generate. Further on, companies will have to focus more on long-term sustainability and growth over short-term goals, and find a way for their operations to help support the governmental work towards the SDGs.

After the goals were announced, WBCSD (2018) conducted a survey including 250 different companies to understand how they are perceiving the goals today and how they are working towards achieving them. It can be seen that companies have been aligning their strategies with the SDGs since their release, perceiving that it provides lot of benefits working with the SDGs. 44% of the companies said that they are already incorporating the SDGs in their strategic thinking, while only 12% of the companies had in no way engaged with the SDGs. The benefit that most companies saw coming from engaging with the SDGs was that it gave the chance to focus more on their sustainability strategy. It can however also be seen that many of them found that working strategically with the SDGs could lead to a number of competitive advantages and opportunities such as reputational gain and better risk evaluation.

When defining priorities in between the goals, a majority of the companies choose between 5-10 goals. Only 13% focused on more than 10. The three goals with the highest priority among companies were seen to be SDG 13 - Climate Action, SDG 12 - Responsible Consumption and Production and SDG 8 - Decent Work and Economic Growth (ibid.). There is reason to question the motive behind this. For instance, companies could find a self-interest in providing decent work and economic growth. If the goals are

to be effective, it is important that businesses do not try to "cherry-pick" the easiest goals but instead lay their focus on identifying the most relevant ones (PwC 2015). Mainly using the SDGs for promotion purposes instead of actually embedding it in the core business model can be seen as a kind of SDG washing. It gives a false impression about being responsible, instead of addressing the SDGs in the business and actually making a difference. (Buhmann 2018)

Exploring what difficulties companies experience when integrating and analysing the SDGs, there are several things that are apparent. Even if the majority of businesses are analysing their positive impact towards the SDGs, few seem to identify and take action towards their negative impact - companies seem to focus more on the opportunities that can occur from sustainable work than risk related to the SDGs. It can also be seen that the SDGs are not integrated into all strategic functions, which could lead to a problem when attempting to look at the SDGs from a holistic perspective. It is also evident that even if the managing group of the company is critical when it comes to advancement within sustainable businesses, most of the responsibility is currently put on specific sustainability departments. In addition to this, there are several challenges when it comes to integrating the SDGs in an organisation. Almost 50% of the companies state that stakeholders lack understanding of the business case. Many of them also feel that there is a lack of clarity about regulatory implications, and/or that the goals are hard to implement because of their complexity. More than 90% claim that clearer policy commitment and standardisation of SDG performance indicators would have an impact on their internal work with the SDGs. (WBCSD 2018)

The survey together includes 43 different countries and more than 11 different sectors, suggesting that they cover a large spectrum of businesses (ibid.). However, these are larger and more established companies than the start-ups covered further on in the thesis. Start-ups and smaller companies face challenges that would not be considered an obstacle in larger companies, and vice versa (Trautwein 2020). Despite this, the findings from the survey can be considered a pointer towards what problems and opportunities are seen when working with the SDGs within the business world. Problems and opportunities specific for smaller companies are discussed further ahead in the thesis.

3.1.3 General challenges with the SDGs

Due to the sustainable development goals' systemic nature and complex interrelations, they are considered to be characterised as 'wicked' problems (Tulder 2018). Wicked problems are described as problems that are complex, intractable, open-ended and unpredictable (Alford and Head 2017). The wicked problems go beyond the capacity of one single organisation to understand and respond to. Therefore, collaboration and partnership are needed to tackle them. Moreover, each problem appears to be a symptom of other problems, since they are so closely connected (Nie 2003). The original definition of wicked problems by Rittel and Webber (1973) also stated that they are never clearly solved, but rather resolved over and over. Tulder (2018) concludes that for wicked problems there are still no optimal or moral solutions today, only solution-oriented approaches with unknown outcomes. The path towards achieving the ambitious goals presents several challenges such as ownership and responsibility, integration between goals and measurement of the progress towards them.

Lack of ownership

Previously, the SDGs have been criticised for being inconsistent, difficult to quantify, implement and monitor (Swain 2018). Perceiving sustainable development as a wicked problem might give an explanation towards why they are seen this way, and can also help businesses understand the seriousness and how crucial it will be to take responsibility (Tulder 2018). This is an important part of the work towards the SDGs, since the goals lack defined ownership. The SDGs are systemic in their nature and clearly require a collective responsibility and partnership to be achieved. They have been agreed by all governments and they are expected to translate them into national action plans, policies and initiatives. Yet their success relies heavily on action and collaboration by all relevant actors, including private companies (GRI et al. 2015). Nevertheless, it is not specified which roles the companies can have and what is expected from them in the collaboration towards reaching the SDGs. Still there are no legal consequences for actors violating them, or not addressing them. When no one has the prime ownership, the risk is to end up in a so-called "tragedy of the commons" (Tulder 2018). The term describes a situation that occurs when individual actors make the best decisions for their personal situation, regardless of the negative impact on others.

In other words, they neglect the well-being of the collective society in the pursuit of personal gain. (Hardin 1968)

There are several things that can be done to avoid ending up in this situation. In an ideal scenario, the involvement of many parties would encourage collective action instead of discouraging it, causing a sense of shared ownership (Garrity 2012). To reach this, companies should be urged to collaborate with the society around them and involve their stakeholders in their work with the SDGs. They should also stay informed about smart opportunities and approaches to sustainability, understanding how the company itself could benefit from taking sustainable action. Collaborating with others and framing the problem in so that it fits the strategic objectives of the company is a way to make the SDGs more comprehensible to work with. Further on, it might motivate the company to incorporate the sustainability strategy in their everyday business, obviating the problem where no one feels responsible enough to take action. (Tulder 2018)

The role of partnerships

Cross sector partnerships have been seen as a way to address sustainability for the last 20 years. By combining resources and capabilities of governmental actors, businesses and civil society, the outcome of collaboration is expected to exceed those of any sector acting in isolation. (The Partnerships Resource Center 2020)

The SDGs' success also relies on collaboration between all actors; government, business and civil society. It is also explicitly built into the framework of the SDGs, with Goal 17: *Revitalize the global partnership for sustainable development.* UN (2020a) states that partnerships are required at global, regional, national and local levels and that these should be built upon shared principles and values that place people and the planet at the centre.

Previous research has shown that a lot of companies engage in many partnerships. However, follow up studies show that the intended aim of these partnerships is often unclear, underfunded or poorly managed (Tulder 2018). One of the biggest challenges is therefore to align all the involved parties so that there is consensus regarding the expectations. Many different forms of partnerships exist. Stott and Murphy (2020) categorises the different types of motivation for partnerships in the context of SDGs:

- **Instrumental:** Partnership in order to achieve a result or goal, e.g., as a part of the organisations' mission
- **Integrative:** Partnership in order to interact with a broader community through holistic and traversal approaches
- **Extrinsic:** Partnership in order to avoid sanctions and/or to obtain rewards, e.g., reputation
- **Intrinsic:** Partnership because it is rewarding for its own sake, e.g., promising prospects for individual or organisational learning and growth

Most important is that the parties involved share the same ambition to avoid strategic misalignment. According to Tulder (2018) partnerships with high engagement and strategic alignment achieve most operational impact. That also requires that the involved partners invest their time, money and effort. Successful collaboration is dependent on long-term engagement and it can take several years to reach the needed level of mutual trust and understanding between the partnering actors. This implies that instead of engaging in many partnerships, companies can benefit from having fewer partnerships in their portfolio but with higher engagement. (ibid.)

Integrated system

Another typical characteristic of wicked problems highlighted by Tulder (ibid.) is that they are complex in the aspect of interrelations and dependencies on each other. Previous research has shown how all the SDGs and their related targets are an integrated system with complex network connections (Le Blanc 2015). Some targets will inevitably affect or be affected by more than the goal it was associated with in the first place. Because of these connections, choosing to work with one goal will in many cases lead to a need to monitor a number of other goals to avoid ending up in a situation where some aspects of sustainability are forgotten (ibid.). This phenomenon is called "the nexus challenge", which implies that all of the 17 different areas are closely connected to each other, and in order to handle them one by one it is important to understand the network between them. For example, food production may compete with bioenergy production regarding land or water resources.

In order to combat this problem, a systemic thinking that takes the interactions into consideration is needed. Consequently, the company should view the SDGs from a holistic approach in order to make a sufficient evaluation of

their performance. When isolating the goals and addressing them separately, trade-offs and conflicts may affect other goals and the net worth of addressing one specific problem might yet be negative in the end. (Tulder 2018)

Both Weitz et al. (2014) and Coopman et al. (2016) have previously developed classifications of interlinkages between specific SDGs. Nilsson et al. (2016) further develop this thought and argue that the relationships between the goals can be sorted in seven different categories in an ordinal scale. The interactions could be mutually supporting, when progress in one area also needs progress in others. But there could also be conflicts and trade-offs between goals. In their model they describe positive interactions in three various degrees, a neutral relationship and three degrees of negative interactions depending on their extent.

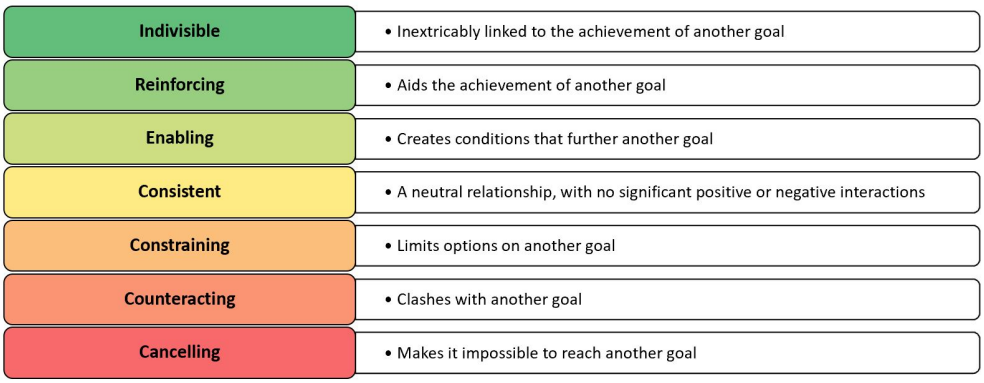

Figure 3: *Interactions between SDGs, adopted from Nilsson et al. (2016)*

For example the reduction of air pollution (target 12.4) is indivisible from improved health and reducing non-communicable diseases (target 3.4) While target *9.1 Developing Infrastructure* and target *15.1 Reduction of degradation of natural habitats in terrestrial ecosystems* might have a cancelling relationship between the goals. Furthermore, the interaction between two SDGs or targets can be unidirectional, bidirectional, circular or multiple. Unidirectional means that A affects B, but B does not affect A, whereas in a bidirectional case A affects B and B affects A. For example, personal mobility affects climate change, while measures taken to reduce greenhouse gas emissions can restrict personal mobility. In a circular relationship the effect acts like a spiral where A affects B, which then affects C, which in turn affects A. Multiple relationships mean that A affects B, C, D etc. (ibid.)

Measuring progress

Another effect of the nature of wicked problems is that it is difficult to measure the progress towards them. It is not clearly stated how the progress towards the SDGs should be monitored today. The UN refers to the annual meetings of the high-level political Forum on sustainable development and says it will play a central role in reviewing progress towards the SDGs at the global level (UN 2021a). As part of the follow-up, the 2030 Agenda "encourages member States to conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven" These reports aim to share experiences, including successes, challenges and lessons learned. However, in the meeting in 2020, only 47 out of 193 countries carried out voluntary national reviews of their implementation of the 2030 Agenda. (UN 2021c)

Quantifying and monitoring the progress towards the SDGs requires data. An additional factor that challenges the execution of the goals is the limited availability of data regarding the different SDG targets, especially this is the case in developing countries. Today, for the majority of the countries, economic indicators are widely available, however data on environmental and social indicators is in many cases incomplete and of poor quality (Swain 2018). Not only quantitative data is needed. The importance of qualitative data got more clear during the covid-19 pandemic. It is essential both for the understanding of the effects, as well as for designing response actions. There are huge data gaps in the SDG monitoring in terms of geographic coverage, timeliness and the level of disaggregation. (UN 2020b)

In order to tackle the difficulties with measurement and monitoring, it is important to develop and use adequate indicators. As explained earlier, there are different levels of granularity within the SDG framework. Every goal consists of sub-goals, in total 169 targets. In turn, they have further been developed into indicators. The total number of indicators listed in the framework is 247. However, twelve indicators repeat under different targets, resulting in only 231 unique indicators. In addition, UN-stats (2020) declare these should be complemented by indicators at the regional and national levels, developed by the Member States. Various organisations have also promised to develop statistical capacity to measure progress (Tulder 2018). Still there are no one-size-fits-all KPIs that can be used in all countries or for every organisation, however there are some strategies for how to handle complex measurement problems.

Using the right indicators

When evaluating performance within wicked problems such as sustainability, there is a need to consider various different objectives and the relation between them. While a business activity might act in favour towards reaching one specific goal, the same activity can lead to taking a step back within another one. When evaluating such an activity, a multi-criterion framework can be used to take the compensability into consideration. A multi-criterion framework allows for several dimensions, objectives and indicators, which are aggregated into something called a composite indicator. This is much needed when evaluating sustainability, "since in general, economic sustainability has an ecological cost and ecological sustainability has an economic cost". However, this puts even more emphasis on the importance of the indicators being measured in the right way and the quality of the data being used. (Munda 2005; Vivas et al. 2019)

It is evident that it is complex to assess sustainability. Even though adopting a multi-criteria approach and using a set of indicators is more time consuming than looking at individual indicators, it can be justified by the fact that it takes both trade-offs into account and addresses all aspects of sustainable business (Munda 2005; Vivas et al. 2019). It is however desirable to reduce the complexity as much as possible through the choice of indicators and indices. The indicators chosen should be used as a tool for the company in their continuous sustainability work. To be operational, they need to be fairly easy to apply, evaluate and access, but still provide the managers with enough information to understand whether they are on the right track or if they need to make changes (Veleva and Ellenbecker 2000). When dealing with a very big set of indicators, as in this case, it is also important not to end up in a stage where it feels like "everything affects everything". To avoid this, the scope and objectives of the evaluation process should be clearly defined in early stages. (UNSDSN 2021)

Hák et al. (2015) discusses the usability of indicators and how to develop relevant and unambiguous indicators to be used by both decision makers and the public. They suggest that the indicators are often too theoretical and vague to be used as tools, and there are no rules for how they should be applied in reality. For the indicators to be a relevant tool to be used in evaluation of the SDGs, three criteria are mentioned:

- Link to the target, which means that the indicator should have a clear

link towards the goal(s) of which it measures progress towards

- Policy relevance, which means the indicator should be possible to use in policy formulations
- Applicability at the appropriate level, meaning the indicator should be relevant for everyone at the level it is thought to be used

In the business case, this could be translated to the indicator being unambiguous, easy to use and implement in a companies' sustainability policy and relevant to more than one industry and company. It is also important to remember that an indicator is only a simplified tool that can be used to represent something that is (in many cases) much more complex. Therefore, it is a good idea to perceive the measurements as an approximate point of reference rather than a definite truth. This becomes even more significant in the business context since the indicators being used will differ between companies, which can lead to a loss in objectivity. (Böhringer and Jochem 2007)

3.2 Sustainability assessment within start-ups

3.2.1 General sustainability assessment

There is a wide variety of sustainability assessment methods, and accordingly several various definitions. It has broadly been described as a process for direct planning and decision-making towards sustainable development (Hacking and Guthrie 2008).

Additionally to give the direction, Pope et al. (2004) argues that sustainability assessment should also evaluate and determine whether or not an initiative is sustainable.

According to Gibson (2006) the sustainable assessment process consists of the following elements:

- identifying appropriate purposes and options for new or continuing undertakings
- assessing purposes, options, impacts, mitigation and enhancement possibilities
- choosing what should or should not be approved and done, and under what conditions
- monitoring, learning from the results and making suitable adjustments through implementation to decommissioning or renewal

A great number of tools have been developed to support companies with their sustainability assessment. Some common methods include life-cycle assessment (LCA), environmental impact assessment (EIA) and strategic environmental assessment (SEA), however there are an abundance of other tools available in the field. (Waas et al. 2014).

This thesis will exclusively focus on tools and methods with the specific purpose of assessing the work towards the Sustainable Development Goals. Therefore, the term SDG assessment is introduced and will be used when referring to these tools and methods.

3.2.2 Steps of the SDG assessment process

When pursuing sustainability work within a company, there are several steps involved. In this thesis, the UNGC management model will be adapted for the purpose and used as a foundation to explain these steps. The United Nation Global Compact is a voluntary initiative with the ambition to help businesses deliver on the SDGs by helping to scale and accelerate collective business impact. UNGC has previously developed the ten principles, found in Appendix B, which presents a way for companies to make sure that their everyday work and operations are sustainable and meets basic responsibilities within human rights, labour, environment and anti-corruption (UNGC 2021). Together with Deloitte, UNGC further developed the UNGC Management Model to help businesses uphold these ten principles and include them into their core corporate strategies. The model is designed to be easy to use, flexible and scalable, so that it can be used by a wide variety of companies regardless of size or industry. (Deloitte and UNGC 2010b)

As presented in Figure 4, the six steps of the model are as follows: Commit, Assess, Define, Implement, Measure and Communicate. The steps are presented in the shape of a circle. The shape suggests that progress requires that businesses use the six steps over several iterations, and it is also recommended to custom the model according to specific needs by changing the order of the steps, or perform two or more steps at the same time. The model is designed to guide companies in their present business as well as evaluating the impact of their previous actions and forecasting future risks and opportunities, aiming to create long-term value for stakeholders and shareholders. (ibid.)

Figure 4: *UNGC Management Model (Deloitte and UNGC 2010b)*

Commit: First of all, the company has to commit to support the ten principles by signing the UN Global Compact Letter of Commitment.

Assess: The company assesses its risks, opportunities and impacts in their operating context and value chain. If the company has activities in multiple countries, they conduct the assessment both locally and globally.

Define: The company develops and refines goals and metrics specific to its context, and creates a road map to follow. The goals could be both qualitative and quantitative, together with an expected time frame.

Implement: The new strategies are established in processes and among all the employees. Furthermore, the company works with its suppliers and business partners in order to make sure they support the efforts.

Measure: The company begins to track the progress by capturing and consolidating the metrics and impact measurements they identified in the Assess and Define steps.

Communicate: Finally, the company communicates its progress and engages with stakeholders to capture feedback and improve performance continuously. (Deloitte and UNGC 2010a)

The first step, commit, which involves writing a commitment letter to UNGC will not be covered in the thesis. The different steps will instead be adapted to the scenario where the company made an internal commitment to integrate the SDGs in their business model, and from this the tools available will be analysed to see which steps they cover. For the purpose of the thesis, the main focus will be steps 2, 3 and 5: assess, define and measure. From research in the pre-study, these were considered to be the three most relevant steps in sustainability assessment for start-ups. Implementation strategies are considered to be more critical for bigger firms with a high number of employees and several different departments, compared to start-ups.

Regarding communication, some parts are highly essential for start-ups, such as conversations with investors, while others are less important e.g., reporting. Sustainability reporting is certainly meaningful but due to the early stages of the start-up companies, this was not a common challenge for the start-ups according to the pre-study. Their challenges were instead concentrated on navigating the direction for their SDG work (steps Assess and Define) and to get guidance in how to measure their progress. However, since the model is iterative and all steps are dependent on one another, other steps will briefly be taken into consideration as well.

The *Assess* step of the process plays a big role since this is where the company finds which impact should be measured. To understand the risks and opportunities the sustainability work could cause is an important part in choosing which SDGs to work with and how to work with them. This step is different depending on the company, its resources and knowledge. In the case of smaller companies, the resources might be limited, and especially in start-ups there might not yet be a lot of processes to analyse. If that is the case, the assessment step can be based on hypothesised risks and opportunities. The assessment can be very complex or more vague depending on the ambition and number of components involved. (Deloitte and UNGC 2010a)

Define the goals and strategies is one of the first steps towards actually measuring the performance. This is where strategic KPIs are set and where the risks and opportunities discovered in the assessment step are addressed. If a business is to evaluate its performance in a sufficient way, they need to know what they are measuring and where they want to be in the future. In this step, the selection of indicators is a crucial part. Chosen indicators can be both quantitative and qualitative, short-term and long-term. Actions should also be formulated in order to know how to work towards the defined goals.

Choosing the right indicators and setting realistic and clear goals will help the company evaluate how they are contributing towards the SDGs. (Deloitte and UNGC 2010a)

After implementing the chosen strategies to reach the goals, the company must *measure* their performance towards the indicators in order to understand how they are doing. This will require some kind of measurement tool to keep track of what progress they are making towards the previously defined goals. How the measurements are made is up to the company, and the quality of the data available. In other words, the result could be everything from an estimate to very accurate numbers. It is likely that the data will turn out to be more exact over time, as the company gains more experience about incorporating sustainability in their business. Because of this, the approach towards measuring progress might change as the company becomes more sophisticated. As the data gets more refined, there might be a need to go back to the assess- and define steps to look over the previously found risks, opportunities and goals. (ibid.)

3.2.3 The start-up context

A lot of company-level tools and measurements that can be used to manage sustainability tend to focus on larger companies and organisations, and there are very few approaches aimed towards smaller companies or start-ups. Even with today's growing interest towards sustainable business, most of the new literature getting published pays more attention to established companies (Halberstadt and Johnson 2014; Trautwein 2020). This is unfortunate, considering that disruptive technology and new markets play a big part in the transformation towards more sustainable businesses. In other words, the entrepreneurship and innovation provided by start-ups will be crucial for future development (Fichter and Clausen 2016). More attention has however been paid to the relevance of smaller firms during the past few years, leading to more management tools adapted for start-ups and smaller companies being brought to the market. There are also discussions about how existing management tools could be used in smaller firms. (Hörisch et al. 2015)

Since the opportunities, characteristics and challenges of start-ups differ from those within big enterprises, the approach towards sustainability assessment will also be different, creating an inconvenience when applying existing tools to start-up companies (Schaltegger and Wagner 2011). Tools that are devel-

oped for larger companies might be hard for start-ups to use, since they tend to evolve around how to strategically implement sustainable business in an established enterprise rather than actually starting up a company where sustainability is embodied in the core business. Start-ups are subject to rapid change which requires a high level of flexibility. Large firms will also in most cases have access to more resources in the form of finance, labour, knowledge and time. Because of this, they can accept higher initial costs and larger commitments connected to man hours and effort needed in order to implement a certain management tool (Balachandran et al. 2011; Halberstadt and Johnson 2014).

In general, complexity is a reoccurring problem when it comes to models for sustainability assessment. A lot of the tools provided do not provide sufficient guidance to make them comprehensive and easy-to-use, which creates yet another problem for small firms with less resources (Halberstadt and Johnson 2014). This complexity together with the variety of models and indicators available today also make it harder for start-ups to be aware of which tools are available for measuring sustainability performance. In general, smaller businesses are not as informed as larger companies when it comes to which tools there are on the market. To be able to develop their sustainability work further, it would be helpful for smaller companies to get more insight about those tools, and how they in an effective way could be incorporated in their daily strategic work. (Hörisch et al. 2015)

On the other hand, there are several advantages that apply to start-ups working with sustainability assessment. Smaller companies are often characterised by a less formal hierarchical structure, which means that the risk of getting lost in management policies or organisational difficulties are lower. The smaller size and lower number of employees also leads to greater flexibility in how they manage their sustainability measurement (Balachandran et al. 2011; Wickert 2016). In addition to this, the organisational structure of smaller companies might open up for the opportunity to, in addition to minimising already existing negative impact, work proactively towards addressing social, economic or environmental issues that they see coming in the future (Hörisch et al. 2015). All of those characteristics will be relevant in order to make an adequate assessment regarding which tools are suitable in the start-up context.

3.2.4 Important factors when measuring sustainability

When measuring sustainability within a company, there are several factors that will be crucial for a sufficient evaluation of the performance. These factors include both qualities that will be important for the company itself to get further in their sustainability development, but also factors that are interesting in the eyes of existing stakeholders. Keeping the stakeholders informed and updated about the company's sustainability work is a significant part of the process for many reasons. Firstly, stakeholder involvement provides the opportunity to find synthesis and solve upcoming problems through collaboration with others. The stakeholders can participate in all stages of the sustainability assessment, and should also be thought of when setting goals and objectives (Sala et al. 2015). Additionally, key stakeholders such as investors and the government are crucial for impact-oriented start-ups from a financial perspective, since they are in many cases dependent on funding from investors with an interest in sustainability (Trautwein 2020). For this reason, reporting becomes a crucial part of the sustainability assessment process in order to inform investors about how the company is doing.

Waas et al. (2014) discusses sustainability assessment as a decision-making strategy, and highlights several characteristics that would apply to an ideal sustainability assessment. For the assessment to be adequate to use as a base for strategic decisions, it must inform the company about what the best choices are from a sustainability perspective in an objective way. The assessment must also provide enough material and direction to the company in order to contribute to well-informed decision making. It is important to adapt a holistic view, so that the assessment includes all parts of the company and its interactions. This also implies that it has to take into consideration both long- and short-term impact, and that different objectives and SDGs should be evaluated together to guarantee an integrated assessment. It is also important that the stakeholders participate in the assessment process, to gain more insights and understand all aspects of sustainability that might be of interest in the assessment.

Since sustainability assessment is a constantly ongoing process, it is important that the tool allows for an iterative assessment. This calls for continuous learning and improvement along the way, which for start-up companies implies that the evaluation should still be adequate as the company grows larger and introduces more processes and stakeholders (ibid.). The sustainability assessment should be made not only internally but throughout the whole value

chain, and therefore start-ups will have to remember not only to map their current activities but also include the potential parts of the value chain that is not yet existing. Paying attention to all processes and parts of the business is a crucial part of the sustainability assessment, making sure that no impact is left out of the evaluation. (Mura et al. 2018)

To get a clear picture of the sustainability performance within a company, it is desirable to use numerical indicators so that the result can be compared without subjectivity. However, since sustainable development is very complex, this might not always be possible. In order to evaluate performance within more complicated matters, such as quality of life, there will be a need to evaluate things that are very hard to put in numbers. Because of this, both quantitative and qualitative measurements will be needed in order to make a complete evaluation of a company's performance. (Veleva and Ellenbecker 2000)

3.3 SDG assessment tools

More and more tools are being developed to help companies work with the SDGs, however it can be difficult to compare and choose among them. Existing tools for evaluation of SDG impact today have various functionality, target groups and suit different purposes. Some are narrower and deeper, focusing on application in a specific sector. While others have a more general approach and could therefore be used in any industry. Moreover, the different frameworks can be sorted in categories depending on their purpose, e.g., mapping tools with the purpose to map existing activities to the SDGs or reporting tools with the purpose to include SDGs in the sustainability reporting. (Grainger-Brown and Malekpour 2019)

This thesis is intended to help start-ups navigate a complex landscape of impact measurement tools and identify those that best meet their needs. Furthermore, selection criteria have been defined to support the RQ, in order to meet the identified needs that were found during the pre-study.

The selection criteria for the tools were:

- Explicit reference to the SDGs; discard frameworks that focus on sustainability in general, without connection to the SDGs
- Applicability to a broad range of sectors; discard frameworks that are

developed for a specific industry/sector

- Developed as a supportive tool/framework for companies; discard frameworks developed for academic purposes, NGOs etc.

Tools were included if all of the selection criteria were met, in order to discard irrelevant frameworks from the scope. The resulting scope of tools is shown below in Table 2.

Table 2: Evaluated tools for SDG assessment

	Description
SDG Compass	Text guide of five steps on how to work with SDGs throughout the process
SDG Action manager	Interactive online tool to evaluate the status of a company in perspective of the SDGs
SDG Impact Assessment	Five step guide on how to assess SDGs with complementary online tool
SDG Monitor	Online tool that connects actions to SDGs and visualises the progress

3.3.1 SDG Compass

The SDG Compass was developed by GRI, the UNGC and the WBCSD. They present that the objective of the compass is to "guide companies on how they can align their strategies as well as measure and manage their contribution to the SDGs". In other words, it is a tool for businesses to understand where they are in their sustainability work and make sure they maximise their contribution towards the SDGs. The compass itself consists of five steps that can be used throughout the whole sustainability journey, making it easier to take action, align the work and understand how the SDGs can affect business. The Compass may be applied at all levels and within companies of all sizes, but is originally developed to be used by large multinational enterprises at entity level. (GRI et al. 2015)

The SDG Compass describes the process of integrating the SDGs in the business and contributing towards them in five steps.

1. **Understanding the SDGs** is the first step to be able to incorporate the goals into businesses. This gives an understanding for what opportunities and responsibilities come with the goals, and how they can be used

in order to strengthen stakeholder relationships. It should also be explored how the SDGs can help stabilising societies and work together with the government and other companies towards a common goal.

2. **Defining priorities** The challenge here is to map the whole value chain in order to understand which goals are most relevant and where there are opportunities to make a large impact. This applies both to increasing positive impact and avoiding or eliminating negative impact. When the most influential goals have been identified, this can be further developed to understand which indicators within these goals should be prioritised, and what data collection is needed to evaluate these.

3. **Setting goals** is important to make sure that progress is actually made within the undertaken goals. SMART goals (specific, measurable, achievable, realistic, time-bound) help to drive performance and set shared priorities. This includes both choosing a scope and an end date, but also to decide what KPIs the company should focus on. Since all businesses are different, this will not always be the same for two companies even if they focus on the same SDG(s). It is however recommended that companies choose a commonly used indicator as KPI when possible.

4. **Integrating** the sustainability work into the core business is critical for it's success. The management level's leadership is especially important when anchoring the sustainable goals within the organisation. First of all, the company needs a shared understanding of how the progress towards the goals contributes with value. Furthermore, the goals should be embedded and integrated in performance reviews across different divisions. Not only should the company work with the internal integration, they are also recommended to engage in sustainable development partnerships. Partnerships could be formed with companies in the same value chain, together with other actors in the same sector or multi-stakeholder partnerships.

5. **Reporting and communicating** can be simplified by using the SDG framework, since it provides a common language among the stakeholders. Reporting should be comprehensive and follow international standards provided by e.g., the principles developed by GRI. Moreover, both negative and positive impacts should be reported. Regarding the communication, SDG Compass suggests that companies disclose (1) which SDGs that are relevant for the company and why, (2) significant positive and negative impacts, (3) progress towards achieving their

goals and (4) what strategies and practices that are used in this process.

The SDG Compass provides a thorough guide in how to work with the goals and embed them in the business. Because of how the guide is built, it gives the company the possibility to be flexible in how they want to work with the SDGs, but at the same time it provides information and counselling in how to approach the assessment. It should however be noted that since it is only a text guide, it will require the user to spend a relatively large amount of time in order to build a sustainability strategy using the guide as a support along the way. The company must also carry out their own research about which SDGs are suitable to prioritise in their specific case, again using the Compass as a guidance. Given that the company has the time and effort to go through the steps as recommended, it does provide a comprehensive and full guide on how the company should structure and and perform an SDG assessment that covers the whole supply chain and includes both the negative and positive impact the company has on each of the goals. Further on, the SDG Compass also recommends how to find relevant KPIs in order to measure progress in an adequate way.

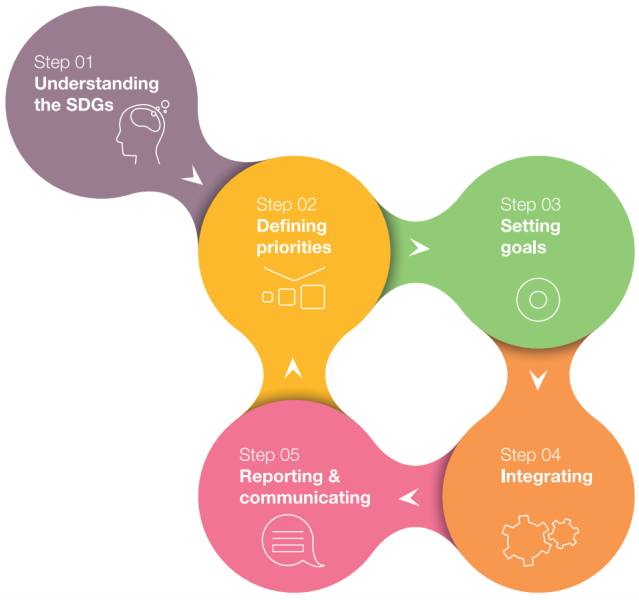

Figure 5: *The 5 steps of the SDG Compass*

3.3.2 SDG Action Manager

SDG Action Manager was developed by B Lab, a non-profit organisation which among other things helps businesses with the SDGs, together with the United Nations Global Compact (UNGC). The cooperation between the two generates several advantages, combining UNGCs global outreach and knowledge about UN and the SDGs with B Labs expertise within sustainability and a powerful technical platform. SDG Action Manager is a free web-based tool, and the goal is to make impact management assessment available to everyone. It works as an interactive online tool, where the company first gets to answer general questions about their current impact, called the baseline module. The baseline module offers a general overview of the company's engagement in social and environmental issues, including topics like stakeholder engagement and governance, supply chain management, tax and government affairs practices, and SDG integration. In total, the baseline module consists of approximately 200 questions rooted in the Ten Principles of the UNGC. (B.Lab 2021)

Based on the responses to the questions from the baseline module, the tool then helps the company move forward by recommending a list of SDGs that matter in the company's area of business. The choice of SDGs is only a suggestion based on the previous answers, but does not prevent the company from choosing other SDGs or add more to focus on based on their own interest and knowledge. For the recommended or chosen SDGs, the company answers an average of 30 questions per SDG, depending on their size, sector, geography and industry. The idea is to evaluate the company's impact on five different stakeholder groups; workers, community, environment, customers and government. If the company is not already informed about the subject covered by the question, all questions have a "learn more" section where the user can get more information about the specific subject. This makes the tool more available even for companies that have less experience working with the SDGs. (ibid.)

After answering questions within the chosen SDGs, the company get recommendations on certain goals that are suitable for their business. Here, they have the opportunity to add current performance towards the goals, specify what is to be done, set deadlines and reminders to make sure that they keep working towards their targets. The targets are generally focused on qualitative data, even though it includes some quantitative questions as well. How well the company scores within a certain goal will depend a lot on their

proactive actions, and includes both positive and negative impact toward the concerned SDG. It is highlighted that it "is particularly important in understanding the holistic performance of a company and prioritising areas of improvement". It is possible for the company to visualise the performance as time goes, however the tool is not meant to be used for reporting but rather for internal understanding. (B.Lab 2021)

Since the tool is developed to be used by everyone, company size is not an important factor in whether or not the Action Manager is a comprehensive tool, although the size and maturity of the company will determine how much time is needed for the assessment. It cannot be said exactly how much time is required to go through all the questions, and it is dependent on a number of factors. According to one of the companies using the tool today, the baseline takes about 2-3 hours to complete. After this, the company also has to go through all the modules covering the suitable SDGs and set goals with respect to these. For a big company with global operations this might take longer, while the process is not as complicated for a start-up, that is less complex. Further on, completing the questions is easier for a company that has the data needed easily available. However, the initial assessment will be the most time consuming, and once the goals are set, the company can go back and redefine the goals when they wish. It is also possible to add more of the SDGs and set new goals as more knowledge and experience are gained. (ibid.)

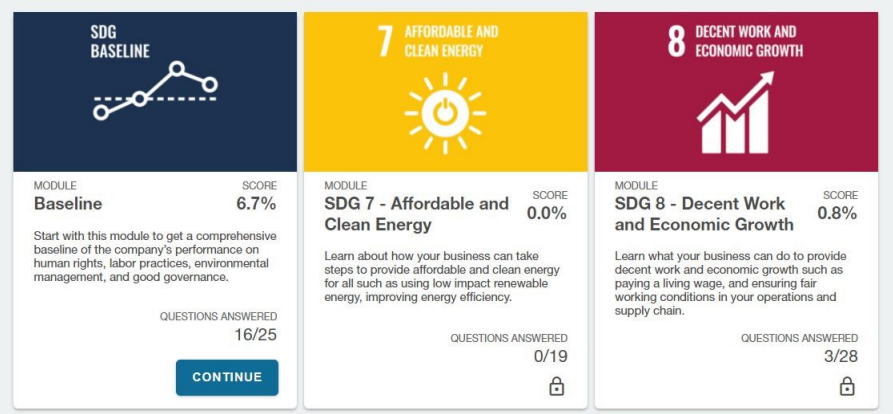

Figure 6: *SDG Action Manager*

3.3.3 SDG Impact Assessment Tool

The SDG Impact Assessment Tool is a five-step process developed by SDSN Northern Europe and the Gothenburg Centre for Sustainable Development at Chalmers University of Technology and the University of Gothenburg. It mainly consists of an instructive five-step text guide helping the company through the sustainability assessment, complemented by a web-based tool to help cover two of the steps. Both of them are free for anyone to use by creating an account. According to UNSDSN (2021), the guide is developed to help businesses identify opportunities, risks and knowledge gaps, in order to assess what impact the company has on the SDGs. The guide emphasises that the assessment is to be done based on the company's own knowledge, implying that businesses with less experience regarding the SDGs might need additional research or education in order to complete the steps in a sufficient way. However, even though some previous knowledge is needed, the goal is that the guide will help the company gain more understanding about their sustainability work. It is made to be applicable to a large user group, and provides instruction for the user depending on their specific scenario.

Companies are recommended to follow the five steps; (1) Gather your forces, (2) Define, refine, draw the line, (3) Sort the SDGs, (4) Assess your impact and (5) Choose strategy forward, in order to make best use of the tool. The first step suggests to start the SDG assessment with discussions in a workshop format. After this, the company moves on to the second step, where the scope should be framed. The guide does not provide any detailed instructions on how to perform this step, but does however highlight that it is important to consider several different aspects, including the life-cycle perspective. None of these first two steps are included in the web-based tool, but are rather pointing the company in the right direction by recommending a way to start the assessment. This gives a lot of freedom to perform the assessment in the way that suits the user the best, but also means that the company has to take more responsibility to make sure it is actually done. On top of this, it will require more initial knowledge to be done correctly. (ibid.)

The following two steps are covered by the web-based tool. In step three, the user is asked to decide what goals are relevant for the business. The tool goes through all of the 17 SDGs and for each goal the user chooses if it is relevant, not relevant or if more information is needed to decide. The assessment is made by the company itself, and is not assisted by the tool at all. The same goes for step four, where the company's impact on each SDG is

assessed in order of relevance. The SDGs is categorised into 5 different levels of impacts, ranging from *direct positive impact* to *direct negative impact* or, if unknown, *more knowledge needed*. For each of the SDGs, an explanatory text is included to motivate the choice. After assessing all 17 goals, the result is shown in a visualisation, see Figure 7.

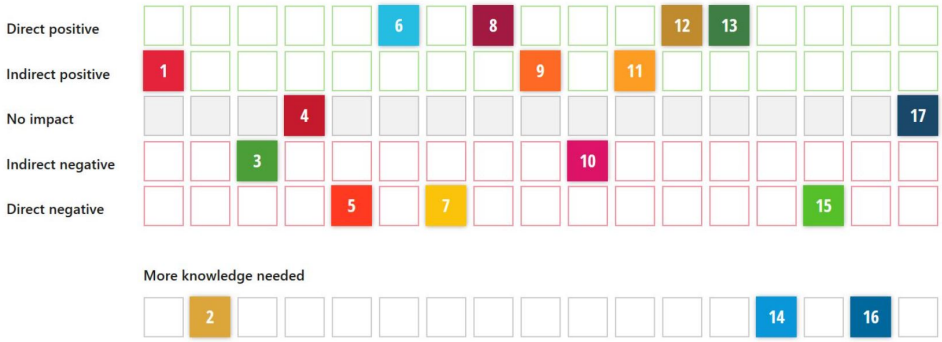

Figure 7: *Visualisation from Impact Assessment Tool*

Based on this result, the user can move forward to the fifth and final step, where they are instructed to choose what strategy the company should adapt forward on. The strategy chosen should describe how to strengthen positive impact and eliminate negative impact. The guide also recommends finding partnerships to fill knowledge gaps that have been found, but does not elaborate any further on how this should be done. (UNSDSN 2021)

The guide itself describes the Impact Assessment Tool as a generic guide that focuses on qualitative measurements and reasoning. It is also stated that this does not exclude evaluating quantitative data if it is available within the company. This is another example that demands the company to do their own research and where additional knowledge is needed outside what the guide provides. Further on, it claims to take all SDGs into consideration, in order to ensure coverage of all potential impacts and avoid sustainability washing. This is also true to a certain extent since all of the SDGs are evaluated. However, the user makes this assessment only based on previous knowledge, which will lead to a judgement that is subjective to the user. (ibid.)

Seeing that the tool itself mainly consists of a text guide explaining how a company can approach their sustainability assessment, it is important to keep in mind that the quality of the assessment will be up to the company using

it. Seeing that it only provides a brief visualisation of the company's current state, it can be used as a start to reflect around the goals, but it does not really contribute with any guidance to choosing the right SDGs or actions to focus on.

3.3.4 SDG Monitor

SDG Monitor is a subscription based online tool developed to help companies pair already defined sustainability actions with the SDGs. After creating an account, the company can create one or several sustainability plans to work with. Within these plans, the tool can be used to set specific actions and goals. The companies have to define their action by themselves, but the tool then helps connect the action to a suitable indicator or SDG based on keywords included. This way, the tool can help companies to avoid cherry picking among the goals, and instead get an objective view of which SDGs are aligned with their specific actions. The indicators used in the tool have been rewritten to suit business purposes. After specifying an action and the SDG connected, the company decides on a goal for this specific action. This part includes information about the goal such as the baseline value, the target value and the target due date. The tool only supports quantitative targets, but also allows the company to add additional notes if needed. (SDG-Monitor 2021)

Once the action and goal are set within a plan, the company can update the value continuously. This allows for the company to follow the progress along the way. The tool converts all company data input into indexes and shows the overall impact on dashboards, see Figure 8. The index score is also presented as traffic lights to indicate the trend of the goal. These dashboards can be downloaded in different formats and used both internally to better understand where the company is in terms of the SDGs, but also externally to present the results to stakeholders. The graphs show both short and long-term performance and how many of the SDGs the company is addressing, and the easy communication is a big part of the tool. It also allows sharing data with any contributors also using the tool, which encourages stakeholder involvement. (ibid.)

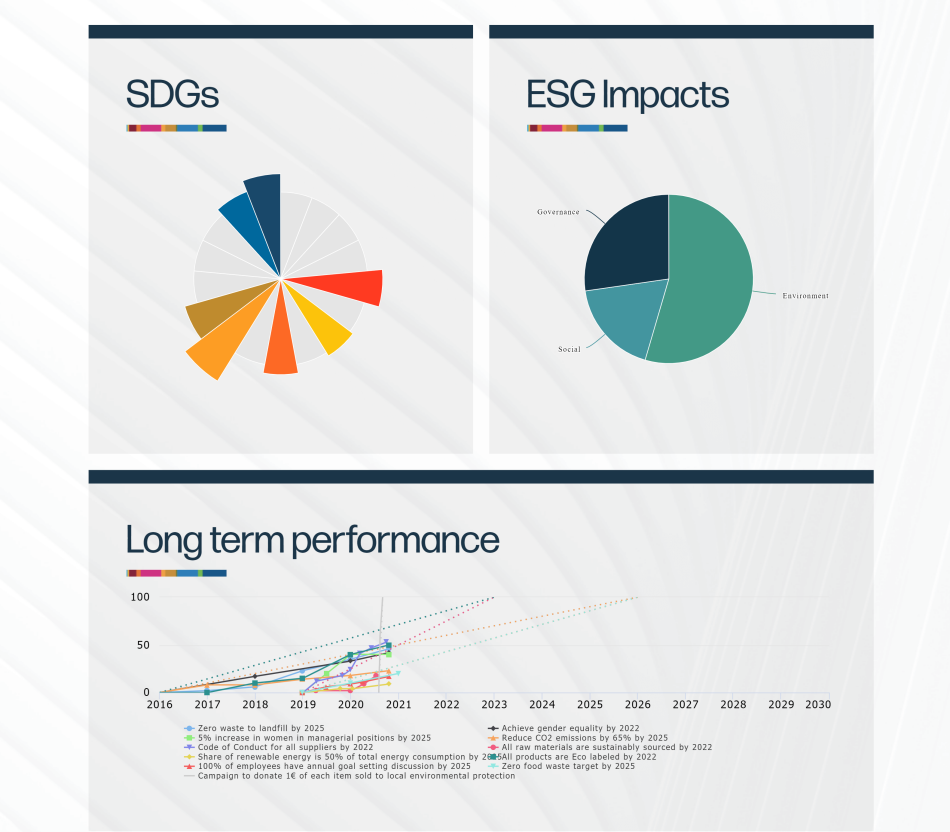

Figure 8: *SDG Monitor Dashboard*

Even if the tool to a certain extent helps the user understand and select SDGs, it requires the user to develop internal targets and track the progress themselves without providing any guidance on how to decide on relevant actions or how to gather the data. Therefore, it is suitable for a company that has knowledge about sustainability assessment, but wants to convert to SDG assessment. Since the actions have to be decided before the tool helps choosing the goal applicable, it requires the company to do some research on their own before the tool is used for tracking and visualisation. Putting this responsibility on the company, it is important to be aware of the possibility that some parts of the value chain might be forgotten, or that the company chooses to only focus on showing positive impact, neglecting the trade-offs and risks connected.

Besides the web-based tool, the SDG Monitor offers SDG Analytics. This is an extension of the tool where the company can get support in analysing their

sustainability data and choosing an action plan and KPIs suitable for their specific business. Although it is not a part of the SDG Monitor subscription, it is a service that can be helpful for less informed companies in order to be able to use the tool in a sufficient way later on. This requires a larger initial investment both financially and timely, but does not call for the company to have any previous knowledge about the SDGs. (SDG-Monitor 2021)

4 Findings about SDG Assessment

This chapter presents the results from the interviews and the literature review and concludes the ten most important factors for SDG assessment in the start-up context.

4.1 Challenges with SDG assessment for start-ups

Some specific conditions in the start-up sector raised during the interviews was the dependence on investors and the fast-paced climate. The limited amount of time and money could be challenging when working with the SDGs, since the SDG assessment is downgraded in favour of daily operations. The CEO from one of the start-ups says that 50 % of his work time is dedicated only to finding new money or investors. The limited access to resources in the form of finance, labour, knowledge and time is also highlighted by Trautwein (2020). That leads to that tools developed for larger companies might be hard for start-ups to use.

Furthermore, there is still a problem that investors focus mostly on financial parameters, even though they express their interest in SDGs and sustainability. The interviews also highlighted that funding from incubators and governments generally encourages the company to focus on just a few of the SDGs in their applications, instead of having a systemic thinking. Moreover, in some grant applications the company is only asked for a simple connection to the goal, without granularity in indicators or deeper analysis regarding actions and follow up, which call on a minimal effort approach.

The problem with a too narrow scope or cherry-picking among the goals was also highlighted in the result from the survey conducted by WBCSD (2018). It showed that even if the majority of businesses are analysing their positive impact towards SDGs, few companies seem to identify and take action towards their negative impact on the SDGs.

Another problem that could occur when not having enough time, is the lack

of detailed investigations when choosing between alternatives. For example, it can be a very urgent process when choosing a new supplier, which leads to less time for analysing all alternatives.

However, the interviewed representatives also highlight the opportunity that comes with being a start-up and one interviewee explains it like a "blank paper" without any history preventing them e.g., no alternative costs for switching supplier. This is also emphasised in another interview, that states that when the structure is already shaped, change is much harder. "A small start-up has a higher flexibility and therefore I believe start-ups have a better opportunity to work with the SDGs." Also Wickert (2016) argues that the less formal hierarchical structure and lower number of employees leads to several advantages for start-ups working with sustainability assessment.

The start-ups from the pre-study interviews were all in an early phases of their development and did not have a ready product on the market yet. Right now, one of the start-ups used a database provided by the UN together with excel to measure their SDG impact, while other start-ups only had identified relevant SDGs but not started to evaluate or measure. The literature review showed that a lot of tools and measurements for managing sustainability tend to focus on larger firms and there is a lack of assessment approaches adjusted to the characteristics of start-ups. (Halberstadt and Johnson 2014; Trautwein 2020) A common difficulty in the SDG assessment raised by the companies was to find relevant KPI:s, the interviewees emphasised the need for a systematic way to identify and choose company specific and relevant KPI:s. Even though they were currently not using any tool for monitoring their work with the SDGs, they wished to have one in the future, in order to be transparent about their impact.

4.2 Important factors in SDG assessment

Regarding research question 1.2 there are several factors that are of importance when evaluating the start-ups' work towards the SDGs. During the study, several factors appearing in the literature study and the conducted interviews was discussed and reviewed. From these factors, the most frequently and distinct mentioned factors were chosen as most important, in order to end up with a manageable number of factors. To keep the number of factors reasonably low was important from the start-up perspective to make it as easy as possible to use, while still contributing to more understanding towards an adequate SDG assessment.

When choosing what factors to prioritize, two main perspectives where taken into consideration. On the one hand, the factors need to agree with the operational work within a start-up, and contribute to simplifying the process of assessing the SDGs with limiting resources. On the other hand, the factors must contribute to the assessment being correct and taking all of the SDGs into consideration. Balancing these two perspectives is one of the main challenges for the start-ups, and the factors presented is chosen to overcome this difficulty.

The resulting final factors were aggregated from the interviews and discussions with start-ups, tool creators and UNOPS as well as the literature review. For example, factors with lower priority included: "support reporting" - which was removed due to the regulations in Sweden, that means start-ups are in most cases not obliged to report on sustainability *(swedish: hållbarhetsredovisning)* (Bolagsverket 2021); and "support implementation of SDGs across company" - which was removed since the smaller scale at start-ups makes it a lot easier and therefore the support from a tool was considered to be less needed in this case. Some of the initially discussed factors were also dispensed due to the fact that they could be incorporated in the other factors. One example is the need for the tools to be "iterative", meaning that they should be possible to apply over again without having to redo the whole assessment, even if the company is growing and the assessment covers more processes as time passes. This is still considered an important characteristic for a tool, but it is already included in other factors that is presented in the final result, such as "flexible" and "progress tracking".

In total, ten final desirable characteristics for the SDG assessment are listed in Table 3.

Table 3: Important factors for an ideal SDG assessment

Characteristic	Description
Flexible	Start-ups are in a dynamic setting and change is happening at a greater scale compared to bigger firms, therefore the tool has to reflect the context. The needs might differ a lot from industry to industry, making it important that the tool can be changed for specific needs. Scalability is also desired, so the tool can be used in both small pre-market start-ups but also supporting scale-up companies. (Trautwein 2020)
Qual/quant data	Qualitative and quantitative data support different objectives and have their respective advantages and drawbacks, however they are both needed to provide a relevant impact assessment (Veleva and Ellenbecker 2000). A tool should support indicators of both kinds.
+/- impact	The pre-study showed that a common problem is that only positive contributions towards the goals were addressed (PwC 2015; WBCSD 2018). In order to make an adequate assessment, the tool should prevent cherry-picking by including risks and negative contributions towards the goals.
Time consumption	According to the pre-study, time is a limiting resource in many start-ups (Trautwein 2020). Therefore, it is important for the companies to know beforehand how much time that is required, so that they can use their resources efficiently.
Required knowledge	The required knowledge about the SDGs can be a barrier when conducting a sustainability assessment (Balachandran et al. 2011; Halberstadt and Johnson 2014). Knowledge is crucial in order to conduct the assessment correctly, therefore a tool should guide the user through any gaps by providing enough material and direction to contribute to well-informed decision making. (Waas et al. 2014)
Partnership	The pre-study confirmed that SDG assessment can affect stakeholder relationships by e.g., helping a company forecast future risks and opportunities. To communicate the progress also gives an opportunity to capture feedback and improve performance continuously, and also to partner up with relevant actors. The tool should aid creation of partnerships, which is needed to achieve the SDGs. (Sala et al. 2015; Tulder 2018)
Progress tracking	In order for a company to make continuous progress towards the SDGs, it is important to be able to follow the actions undertaken and see the results. A tool should therefore not only support the planning phase for SDGs, but also the progress. Desired is also that the previous assessment can be used in a new iteration (Waas et al. 2014). If the assessment process is iterative, not all stages have to be revisited every time, and the process becomes faster every time the tool is used.
Guiding SDG selection	The pre-study showed that there was a lack of systematic ways of selecting which SDGs that are relevant in every specific case. One desired feature of a SDG assessment tool is to provide guidance of how to define and prioritise the most relevant goals for the start-up. The selection process should be objective and not too narrow in its scope.
Value chain	In order to assess a company's impact on the SDGs, all operations have to be reviewed. It can be done on a value chain level or for all different business operations (Mura et al. 2018). A tool should map all activities both internally and externally, and assess the impact on a holistic level.
Interactions	The SDGs are not isolated from each other (Le Blanc 2015; Nilsson et al. 2016). An assessment tool should incorporate potential synergies or trade-offs between the goals and have a systemic perspective on the SDG framework.

5 Evaluation of SDG assessment tools

This chapter evaluates four existing tools based on ten important factors for SDG assessment. Firstly, they are rated and compared on a three-point scale for every factor. Secondly, their functions are mapped against the different steps of the sustainability assessment process.

5.1 Evaluation criteria

Based on the ten key factors for carrying out an ideal SDG assessment, the four different tools have been evaluated and rated on a three-point scale. The criteria for the three specific rating levels for each factor are found in Table 4.

The ratings for each tool is based on the interpretation of the tool when using it, as well as the tool creators own notions regarding the specific criteria. Since the tools are all of different characters, they cannot be directly compared to each other in every aspect. However, the ratings can be seen as a suggestion to which tools should be chosen to work with depending on what challenges the company is facing. The result is presented in radar diagrams showing the rating of each evaluation criteria, followed by a justification explaining the rating. By using radar charts, it is possible to get a quick overview and comparison among the tools. The charts capture all the various characteristics and present the results in a comprehensive view, however the explaining texts provide additional useful information that unfold the rating behind.

Table 4: Evaluation criteria of SDG assessment tools

Rating in radar diagram	1	2	3
Flexible	Fixed assessment process	Allows for certain flexibility in the assessment	Adjustable and scalable for meeting specific needs
Qual/quant data	Does not include both perspectives	Recommends assessment of both	Both metrics embedded in tool
+/- impact	Does not include both perspectives	Recommends assessment of both	Both perspectives embedded in tool
Time consumption	High	Medium	Low
Required knowledge	Does not provide information about SDGs or sustainability assessment	Provides information but requires additional knowledge	Provides enough information to be used without previous knowledge
Partnership	Focus on the internal company only	Addresses importance of partnerships	Integrates partnership in the tool
Progress tracking	Shows only current state	Supports iterative assessments	Monitors and visualises progress
Guiding SDG selection	No guidance	Recommends how to choose	Suggests which specific goals to choose
Value chain	Does not include the value chain	Addresses internal value chain	Holistic, includes external value chain
Interactions	Not included in tool	Highlights synergies and trade-offs but does not include them in tool	Embedded in model

5.2 SDG Compass

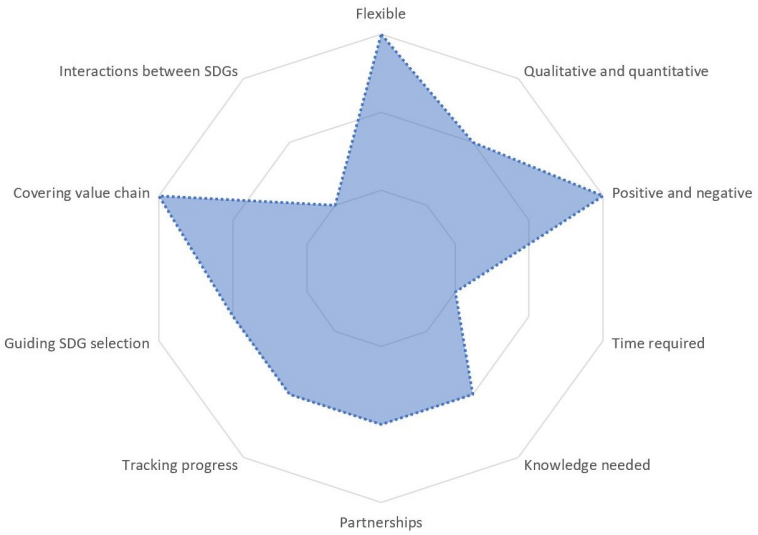

Figure 9: *Rating of SDG Compass*

The format of a text guide makes SDG compass very flexible to use, and the process is highly adjustable to fit a specific company's needs. The company can set up its own toolbox and scale it if needed. However, the format could also be the tool's pitfall, since the assessment process is completely in the hands of the user and depends on how carefully the guide is followed. A detailed assessment that is following each and every step will lead to a high time consumption and also has high requirements on the SDG knowledge. Although, if the user does not have a great knowledge beforehand, the text guide provides enough resources to contribute to a well-informed assessment. That case will though naturally lead to more time spent on reading and understanding the guide and thus also more time spent on the assessment process overall.

Moreover, several of the rated key factors are included and emphasised in the guide, but due to the format not necessarily embedded in the assessment. For example, the guide gives examples on different types of partnerships that can be explored, but leaves out how to establish them. Regarding progress towards the goals, the tool is built to be iterative and gives tips on how to

communicate progress with stakeholders and monitor the assessment along the way. However, the tool itself does not include any visualisation tool of the progress. In the same manner, the tool guides how to choose relevant SDGs, but gives no automatic suggestions.

The guide truly emphasises positive and negative impact, and mentions them both in every step in the guide. Furthermore, it suggests mapping impact over the whole value chain to conduct a holistic assessment, underlining the importance of keeping all parts of the chain involved. It also provides guidance regarding how to select the right KPIs to carry out the assessment, where they give the user freedom to choose whether qualitative or quantitative indicators are suitable for the purpose. At the website www.sdgcompass.org, the tool can be complemented with an online inventory of commonly used business indicators for each SDG target, which helps the company further understand what kind of measurements are suitable in their sustainability assessment.

5.3 SDG Action Manager

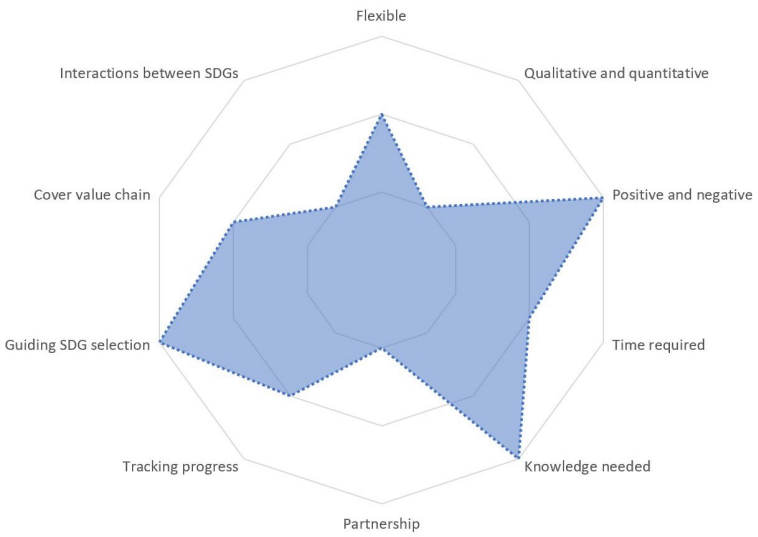

Figure 10: *Rating of SDG Action Manager*

As an interactive online tool based on a questionnaire the SDG Action manager does not provide as much flexibility as a tool that is only dependent on a text guide. The user is allowed to choose what SDG modules to fulfil, but the baseline module is mandatory for all users in order to proceed toward the individual SDG assessment. The tool recommends which goals to focus on and hence guides the selection of SDGs throughout the assessment, but it can also be adjusted manually according to the companies interests or knowledge. The questions in the tool are focused on qualitative indicators of both positive and negative character. Especially, they are centering around proactive actions and how to govern these, as a result of the UNGC Ten principles.

The required time to go through the assessment depends on the size of the company and how well-informed the user is about company specific data, but is considered to be less demanding than creating an own toolbox considering that the SDG Action Manager helps the company understand where to lay their main focus and what goals to set. Similarly, less knowledge is needed for SDG Action Manager in comparison, since all questions are predetermined. If the user needs more information in order to make a decision regarding any of the questions, the tool provides a tab with further information.

The format of a fixed questionnaire makes it easier to do a reassessment in order to compare the progress, and also to benchmark against other organisations. It is also possible to visualise the performance over time, which can be used for internal understanding of the progress. However, it is stated that the rather simple visualisation is not made to be used externally, and that SDG Action Manager is not a reporting tool. Even so, the tool includes the involvement of stakeholders in other ways. By centering around the five stakeholder groups; workers, community, environment, customers and government, the tool includes several aspects of the value chain and important stakeholders to the company. However, it does not advise or guide how to use this in order to create and manage potential partnerships.

5.4 SDG Impact Assessment

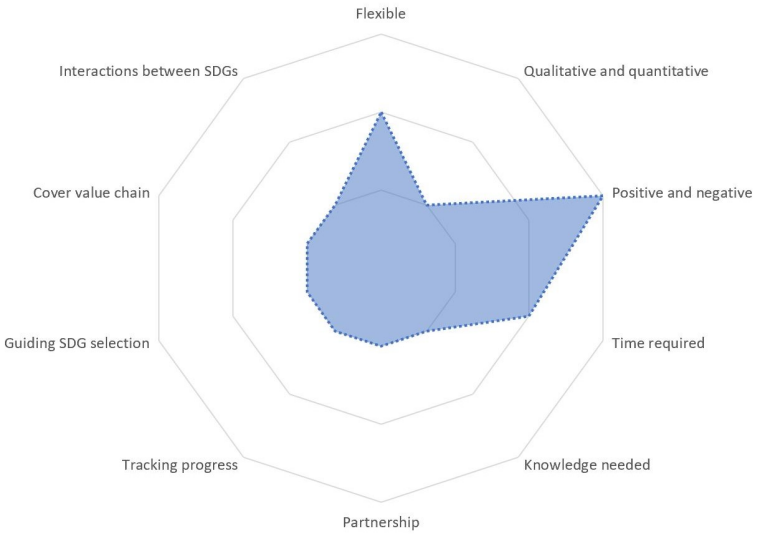

Figure 11: *Rating of SDG Impact Assessment*

The SDG Impact Assessment provides guidance in how the company should approach their assessment of the SDGs. The guide briefly mentions things such as partnerships and the company's value chain, but does not elaborate further on how the company should proceed in order to cover this in a sufficient way. If the user has information about this beforehand, they can easily include it when making the evaluation, but the tool does help regarding these factors. Therefore, the required time is highly dependent on the depth of the analysis that the user chooses.

When going through the web-based tool, the company is asked to evaluate all of the SDGs based on if the business has a negative or positive impact, and whether it's direct or indirect. The company will be obliged to include an evaluation of the goals where they have a negative impact or where they are not performing especially good as well, since it is not possible to move forward until all of the SDGs are evaluated.

The assessment made is however rather subjective, considering that the answers are based only on previous knowledge and the tool itself does not sug-

gest which SDGs the company might perform better or worse within. Furthermore, the user writes a comment to motivate the assessment, but is not asked to refer to specific indicators or measurements. In other words, the assessment is rather weak, and does not rely on any quantitative KPIs or other data, which makes it rather hard to track progress along the way.

5.5 SDG Monitor

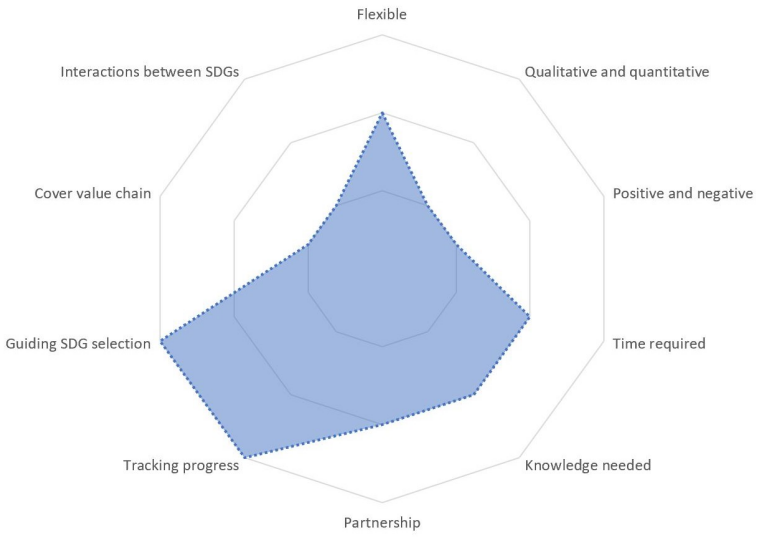

Figure 12: *Rating of SDG Monitor*

Compared to other tools, SDG Monitor has its focus on framing already existing quantitative company targets so that they are connected to the SDGs. By typing in a planned action, the user gets recommendations on which SDGs it may support or affect by the keyword search. Since the output will depend mainly on the input chosen by the user, the tool does not emphasise factors such as covering the value chain or measuring both positive and negative impact. However, if the user is well informed about these factors before, it is possible to use the tool to track this as well.

As for other tools that are dependent on the user's level of commitment, the time required varies from case to case. The user does not need knowledge

about specific SDGs when using the SDG Monitor, but needs to know about sustainability assessment overall e.g., how to define goals, select indicators and integrate the actions within the organisation. If the company is not previously familiar with sustainability assessment and the SDGs, the SDG Monitor offers additional services that will help the company get more knowledge and experience in integrating sustainable development in their operations as well as understand how they can work towards the SDGs. This is however not included in the main tool, and will also require additional investments from the company.

The main characteristic of the tool is tracking the progress towards the SDGs. The user can create several sustainability plans and actions, and the data will be compiled in order to create a dashboard of graphs showing where progress is made and within which SDGs the company has an impact. It is also easy to update the progress along the way in order to create an iterative assessment. The dashboards produced can be used both for internal understanding as well as in communication among stakeholders. It allows sharing the result with others directly in the tool, which supports stakeholder relationships.

5.6 Summary of SDG assessment tools

Table 5: Summary of evaluation

	SDG Compass	Action Manager	Impact Assessment	SDG Monitor
Flexible	Highly flexible, guides the user to set up own toolbox.	Medium flexibility, SDGs can be chosen freely but the tool is to be used a certain way.	Medium flexibility. The text guide provides flexibility in how to work with SDGs, but the web-based tool only has one format.	Medium flexibility. The user chooses plans and action, but the tool itself uses a pre-decided format.
Qual/quant data	Recommends assessment of both quantitative and qualitative data.	Focus on qualitative data.	Only qualitative data.	Only quantitative data.
+/- impact	Guides measuring of both positive and negative impact.	Asks questions on both negative and positive impact.	Made for evaluating both positive and negative impact.	Made for evaluating both positive and negative impact.
Time consumption	High, but depending on choices of the user.	High, given that the user completes all modules adequately.	Medium time consuming. Web-based tool does not require a lot of time.	Requires time to set goals and actions, but the tool itself is fast to work with.
Required knowledge	Requires the companies to make their own research about the SDGs, but carefully guides them through the process.	No previous knowledge needed about the SDGs for a sufficient assessment.	Own knowledge required to use the tool.	Require some previous knowledge about sustainability assessment.
Partnership	Recommends and gives examples of partnerships but leaves out how to establish them.	Does not emphasise the advantages of partnerships.	Briefly mentions partnerships but do not elaborate it further.	Favouring partnerships through communication and reporting.
Progress tracking	Do not provide visualisation, but gives clear examples on how to track and report progress.	Iterative assessment and goal tracking is possible, but does not provide a reporting tool.	Only shows current state.	Good for tracking progress, provides a clear visualisation to be used internally and externally.
Guiding SDG selection	Recommends how to select SDGs, but does not help with suggesting specific goals.	Recommends what SDGs to prioritise based on answers to baseline questions.	Does not help with SDG selection.	Recommends what SDGs to prioritise based on keywords from defined actions.
Value chain	Emphasises and guides mapping of both the internal and external value chain.	Questions include several aspects of the internal value chain.	Does not give any guidance in how to include the whole value chain.	No explicit focus. Depends on the user's input.
Interactions	Not covered	Not covered	Not covered	Not covered

It can be seen that the purpose and coverage of the evaluated frameworks vary. Some are very comprehensive, helping the user through all of the different steps in the assessment process. Others are very specific, covering only certain parts. To illustrate what parts of the assessment process that are covered, a modified version of the UNGC Management model has been used as reference.

The adapted version of the UNGC model includes five of the original steps but excludes the first step: Commit. The SDG assessment tools have then been tested against the UNGC's descriptions for each and every step, in order to evaluate whether it is supported by the tool or not. The main focus has been the steps Assess, Define and Measure, since these were considered to bring most challenges according to the pre-study interviews. However, also the steps Implement and Communicate have been included.

Figure 13 shows the result of which phases in the UNGC management model that are covered by the different tools. For example, SDG Compass covers all different steps by addressing them in the text guide, while SDG Action manager mainly focuses on the first two steps. On the other hand, SDG compass requires the user to conduct all the specific steps independently, without any complementary web tool, while the other tools give more guidance and specific output.

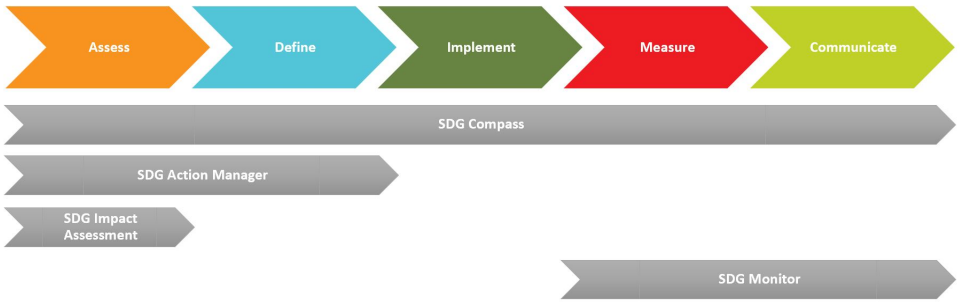

Figure 13: *SDG assessment tools coverage of steps in assessment process, adopted from Deloitte and UNGC (2010a)*

6 Discussion

This chapter presents the implications of the results for start-ups and provides guidance on how to choose an appropriate method that is fit for the purpose. It also elaborates on how to handle some of the common identified challenges. Finally, it includes a discussion regarding future development of SDG assessment tools.

6.1 Implications of the results for start-ups

As start-ups face different difficulties regarding their SDG assessment, it can be challenging to decide which tools to work with. As seen in the result, they all have different characteristics and will therefore be helpful in different stages of the sustainability journey. For this reason, it is crucial for the start-ups to explore their biggest needs and use that as a base for choosing a framework. Since it could be seen that the four models cover different steps in the assessment process, combining frameworks can be a great opportunity in order to make sure that all steps are covered. For example, companies might find that the SDG Compass is a good foundation to begin working with the goals, considering its depth and highly elaborated guidance in how to carry through the assessment. However, since the Compass only provides a text guide, the tool could benefit from being supported with a web-based tool such as SDG Action Manager for the first steps and SDG Monitor for communication. Start-ups should not hesitate to combine the different resources that exist in order to reach a sufficient assessment.

These frameworks also vary in the level of effort required to implement them. The balance between invested time and quality of the assessment needs to be considered when choosing the tool. Since all the tools offer different value in return, they cannot fully be compared by relevant output per invested time. The time effort was one of the most important factors, according to the interviewees. Many of the start-ups emphasised the difficulties with time management in a smaller company, where the number of employees is small and a lot

of time is put aside to search for funding and develop the company further. It is important for the start-ups to know how much time that is expected from them before they start the assessment process.

Though, what should be remembered when working with a wicked problem such as assessing the SDGs, is that it will demand a certain amount of invested time in order to be done adequately. If a company puts in too small of an effort in the initial step of the assessment, they might end up in a situation where they miss out on noticing trade-offs or negative impact in the process. Using tools that allow for an iterative assessment makes it worth investing more time in the initial assessment, since this will make the process easier along the way. Finding what SDGs to work with early in the company journey is also an opportunity that differentiates start-ups from larger enterprises - this creates the chance to adapt future operations and processes so that they fit into the sustainability plan.

Another aspect that should be taken into consideration when it comes to time management and sustainability assessment is how the start-up is working with partnerships. Having stakeholders and other like-minded companies around that know about the SDGs and sustainability strategies can be helpful in order to make the assessment easier, and is also a way to gain more understanding about SDGs while taking collective action. Finding synergies and opportunities to work together will be helpful for future business and growth, and can also help the company achieve their own goals or missions. Many of the tools mention partnerships as a part of working with the SDGs, highlighting that it is an important part of the assessment process. However, they lack further guidance on how to establish and manage them.

It is also important to keep in mind that even if it can be seen as an advantage that the tool is flexible and easy to adapt to the specific needs of the start-up, flexibility in the assessment comes with a risk. When the responsibility is completely in the hands of the user conducting the assessment, it is important to be aware of the possibility that some parts might be overlooked. It might not even be an active choice from the company but rather lack of awareness and experience within the field of sustainability assessment. Knowledge is crucial in order to make the assessment correctly. Therefore, companies need support to fulfil the desired factors, for example guidance regarding how to include both positive and negative impact to avoid cherry-picking or navigation to have a holistic perspective and include the whole value chain.

6.2 Difficulties in choosing the right indicators

One of the most crucial parts when assessing performance within the SDGs is choosing what to measure and how to do it. The choice of KPIs is a challenge for a lot of companies, and there are several aspects that must be considered when choosing relevant performance indicators. One challenge is to make sure that the indicator chosen is actually linked to the SDG it is meant to measure. Even if this might seem straightforward at first, both the literature review and the interviews point towards the fact that it is sometimes difficult to understand the real impact that comes from business activities. In particular, some activities tend to give the impression of affecting one goal at first glance, while in reality they have much more impact within several other goals which is not noticed until further exploration has been made. These misconceptions can be due to several things, for example some SDGs might be more or less relevant to include if working from certain geographical locations or within industries that are not really compliant with the goal. It might also be hard to prioritise among all things that can be measured, especially since the goals are in many ways connected to each other. The ability to prioritise correctly is even more important within a start-up where the resources are less and might not be enough to measure all parts of the SDGs as desired. Here, the company has to reflect upon what indicators they can use that are relatively easy to evaluate, and at the same time relevant and unambiguous for their specific business.

How the company works with KPIs is something that should be taken into consideration when choosing what assessment tool to work with. A company that already knows which KPIs to measure, but have not yet understood which SDGs are associated with those indicators, might benefit from using a tool like the SDG Monitor that recommends SDGs based on keywords. Briefly familiarising with the tools is a good way to understand how they can align with the specific goals of the companies. In contrast, the SDG Compass is a suitable choice for someone who needs guidance in how to choose their KPIs, since it gives a broader understanding for how to work with the SDGs and how to include the whole value chain as well as both positive and negative impact. Furthermore, the SDG Compass provides a website containing a large selection of indicators that can be used as inspiration when measuring or reporting KPIs. In the inventory, companies can explore commonly used indicators for every specific SDG goal, target or business sector by filtering or searching for a specific keyword. They are all adapted from relevant

and widely-recognised sources, such as GRI reporting guidelines, and the web page is constantly updated. The SDG Compass guide itself recommends companies to select KPIs that directly address the impact or outcome. If that is not possible due to e.g., lack of data, KPIs that can be considered "proxies for impact". It means that the company addresses a resource to invest in specific activities, such as investing capital in training. (GRI et al. 2015)

It should however be noted that none of the tools are sufficient to use as a complete support in the measurement process. There is a lack of clear KPIs and recommendations of how to handle the measurement process, which makes the assessment process more time consuming. However, it can be discussed whether it would be possible to actually agree upon common indicators for all businesses, or if the large difference between the companies would lead to a general set of indicators being too ambiguous to rate as an adequate measurement. Today, one of the most comprehensive lists of indicators is the one made by the UN in connection to the SDGs. The list contains 231 unique indicators to be used to determine whether or not the work towards a sustainable world is successful. These indicators present a more quantitative way to look at the SDGs. But since the indicators are designed to be universal, many of them are not applicable in every case - and because of that, not relevant to all businesses. Even if all of the indicators are on a global level and show the big picture, they might be useful for companies to use to further develop their understanding for what needs to be done. (Tulder 2018)

6.3 Failure to address interactions

A big part of the reports and articles included in the literature review highlighted that one of the big challenges when working with the SDGs is to take interaction between the goals into consideration. It is stated that achieving one target can lead to negative trade-offs between competing interests, however this is often overlooked. All of the evaluated tools fail to systematically identify interactions between the SDGs in their assessment. In order for a company to be sustainable, a holistic perspective is required. The SDGs need to be treated as "a whole", otherwise the risk is to end up in SDG-washing that defeats the purpose. Therefore, it is a need for further development of tools and methods that support the identification of these interactions between the goals.

Since this guidance currently does not exist, start-ups working with the SDG assessment today will have to investigate this on their own. It is a good idea to always keep in mind when connecting an operation or action to a certain goal that it might have as much impact - or even more - among other goals as well. In particular, economic sustainability tends to have an ecological cost and vice versa. To get more insight and understanding about trade-offs and synergies between the goals, the seven-point scale developed by Nilsson et al. (2016) could be used. Using this as a base, companies can assess the interactions on their own in addition to using the SDG Assessment tools.

7 Conclusion and Final Remarks

This chapter answers the research questions proposed in the introduction and concludes the most important findings. Furthermore, the contribution to theory and the thesis' limitations are reviewed. Lastly, suggestions for further research are discussed.

7.1 Answers to Research Questions

RQ 1.1 How are start-ups working with the SDGs today and what challenges do they face?

The start-ups interviewed in the thesis are currently not using any specific tool for assessing their work with the SDGs. However, the need for tools to support them in the future was expressed. In particular, the start-ups found it challenging to select relevant targets and KPIs to measure the progress as well as understanding which SDGs to prioritise.

In the pre-study, it was found that time is a limited resource in many start-ups, and could hence be a barrier for an adequate SDG assessment. Start-ups are also highly dependent on capital from investors, which could be challenging both because of their focus on improving financial parameters rather than prioritising sustainability, but also since many grant applications do not consider systemic perspectives in the format of their applications. Furthermore, the limited number of employees and resources might create a challenge when it comes to awareness of the SDGs. Knowledge within the field of sustainability assessment is crucial in order to conduct an assessment correctly, and to make the process as simple as possible, it is beneficial with a tool that informs its user about the assessment along the way.

Another challenge that start-ups need to take into consideration is the early phases of development. They might not have all parts of the value chain settled when conducting an assessment. This means that for start-ups, the initial focus is often on predicting impact rather than evaluating post-performance,

which often is the case for bigger and established firms. When guiding the assessment, it is therefore important that the tool emphasises the importance of the value chain in order to help start-ups in their growth and future operations. It is also relevant to track progress throughout the whole value chain to understand how the impact changes as the company grows.

The pre-study also highlighted the opportunities that the start-up context brings with their flexibility. A characteristic that proposes that SDG assessment tools applicable for start-ups needs to be iterative and flexible in order to support the dynamic environment that is the nature of start-ups. It is also important that the tool is scalable, in other words the tool should be usable in different phases when the company is growing.

RQ 1.2 Which are the key factors to consider when evaluating the work towards the SDGs?

The interviews together with the literature review identified ten factors that are highly important in a SDG assessment process. Some which are general characteristics that apply in sustainability assessment overall, some which are more specific for the start-up context.

- Flexible
- Including both qualitative and quantitative data
- Including both positive and negative impact
- Time consumption
- Required knowledge
- Partnership
- Tracking progress
- Guiding SDG selection
- Covering value chain
- Interaction between goals

RQ 1.3 Which existing tools are available for the purpose, and what are their strengths and weaknesses?

Four different SDG assessment tools passed the selection criteria and were evaluated in the thesis; SDG compass, SDG Action Manager, SDG Impact Assessment Tool and SDG Monitor.

The evaluation against the ten important factors found in RQ1.2 showed that some are very comprehensive, helping the user through all of the different steps in the assessment process, while others are specific and covering only certain parts. Since they support different parts of the SDG assessment process, the choice of tool should be adapted for the specific needs and could also be combined for best use.

One of the most crucial parts when assessing performance within the SDGs was choosing indicators. The results show that none of the tools are sufficient to use as a complete support in the measurement process. However, it can be discussed whether it would be possible to actually agree upon common indicators for all businesses, or if the large difference between the companies would lead to a general set of indicators being too ambiguous to rate as an adequate measurement.

Furthermore, all of the evaluated tools lacked inclusion of systematically identifying interactions across the SDGs. Research has shown how all the SDGs and their related targets are an integrated system including both synergies and trade-offs. In order to conduct a holistic assessment, these have to be considered and included.

7.2 Contribution to Theory

Based on a literature review and interviews, the thesis provides insights regarding the specific characteristics of start-ups and what challenges these create when assessing sustainability. This gives insight about what barriers start-ups face today and which factors are needed to properly provide support to start-ups in their work with the SDGs. Today, there is a limited amount of research regarding sustainability assessment at start-ups (Trautwein 2020), since much of the research covers only larger enterprises and is hard to scale down. Since start-ups can be helpful in the aspect of disrupting markets and by providing sustainable solutions, it is important to provide them adequate

guidance.

To help start-ups get further with their sustainability assessment, the thesis gives an overview of tools assessing SDG impact. The tools are evaluated based on how well-fitted these are to be applied on start-ups and classifies their scope according to the UNGC management model. They are all rated based on ten characteristics for an ideal SDG assessment-tool within the start-up context to give an overview of their usability. No previous evaluation or research of specific SDG-tools could be found. Furthermore, the thesis aims to contribute on a practical level to help start-ups choose the right tool for their SDG assessment. Hörisch et al. (2015) states that start-ups in general are less informed about available tools, and how they could be incorporated in their work.

7.3 Discussion of Limitations

The thesis' results are based on an extensive literature review, but a limited empirical data set. Hence, the results are highly dependent on the individual start-ups and their representatives. The start-ups and tool developing companies are registered in Sweden and in Finland, and are consequently reflecting a narrow geographical area. The limited scope of start-ups are additionally considered to have a greater knowledge base regarding sustainability and SDGs compared to other firms, since they have a clearly stated focus and are a part of an incubation program that concentrate on SDGs. It is therefore hard to draw general conclusions from these few cases. By including more diverse companies in the study, also without sustainability focus, the results would hypothetically focus more on the difficulties regarding the initial steps in the SDG assessment process.

Furthermore, the authors decided to limit the scope to tools that had a SDG perspective and discarded several tools that could be used for general sustainability assessment. An integration of these methods in the thesis could have allowed a broader understanding of available tools, however they would have needed modifications in order to be used in the case of SDG assessment.

7.4 Suggestions for Future Research

This study has been focused on understanding SDG assessment for start-ups from a broad perspective. There are several areas suited for further research:

Firstly, there is an obvious need for clearer performance indicators for companies to use when working with SDG assessment. Although the goals are complex and hard to generalise in terms of generic measurements, the assessment process would benefit from having a selection of refined and objective KPIs to choose from. The indicators provided by the UN today can be used for this purpose to a certain extent, but will in many cases be hard to apply since they are developed on an international level to be used by nations.

Furthermore, there are several sustainability assessment tools developed before the announcement of the SDGs. To create a larger collection of available tools, modification of general tools could be done in order to make them suitable for the specific needs of the SDGs. This would make the SDGs more approachable, and could especially be a resource for start-ups, who need support and guiding in their assessment in order to handle their limited time and resources.

Lastly, it would be valuable to examine the outcome of using the different SDG assessment tools in organisations, which was not done in this thesis due to the time restriction. Testing the tools in the start-up context would lay a foundation for a more thorough evaluation of the tools. These kinds of cases could reveal practical difficulties that were not noticed before. It would also add credibility to the result by validating the characteristics further. In an ideal case, the tools should be evaluated during a longer period of time, to see whether they provide accurate assessment, if they are suitable to use while the company is growing and to find potential development areas.

7.5 Final Remarks

This master thesis was carried out during spring of 2021, while the covid-19 pandemic led to alarming setbacks in several of the SDGs. UNDP estimates that human development could fall this year for the first time since 1990, when measurements began (UNDP 2021). The SDG framework is a summary of the most urgent challenges in our time, and they are highly complex as a result of the underlying wicked problems that they are trying to solve. When dealing with wicked problems it is important to not end up in only a feeling of frustration.

Fundamental challenges are yet to be solved and the current pandemic makes it even more difficult, however we need to remember that we have come a long way in developing the world towards the better with for example decreasing child mortality, less hunger and higher share of humanity living in democracies among other improvements (Hans Rosling 2018). The earlier MDGs also had notable successes, such as helping to lift more than one billion people out of extreme poverty (UN 2015). We have seen how the pandemic not only leads to setbacks, but also gives opportunities to redesign the way we live. The SDGs are not going to be met by practicing business as usual, rather their achievement critically depends on collaboration between all actors in society. Looking ahead to 2030, we are able to deliver on our shared responsibility, which requires going beyond our own boundaries and moving towards a system-level change.

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Appendix A: Interview guides

Semi-structured exploratory interviews with start-ups

- Could you tell us about the company's background?
- How do you perceive the SDGs?
- How does your organisation address the SDGs today?
- What would you say is your organisation's biggest contribution to the SDGs?
- What are the main benefits with the goals?
- What are the main challenges?
- Which goals have you chosen to focus on?
- How do you work with the goals that are not your main focus? Do you take into consideration that your contribution towards one goal might impact the other ones?
- What tools, methods or concepts do you use to measure your impact/progress towards the SDGs?
- Could you give an example of how you use those tools today?
- Are there any situations where you have found it hard to understand how to measure your progress within the SDGs?
- Do you use any other tools to assess sustainability besides the SDGs?

Semi-structured exploratory interviews with tool creators

- Could you tell us about the tool?
- What companies do you target with the tool?
- How is the interest from companies?
- What difficulties do you experience with start-ups regarding sustainability assessment?
- What other sustainability assessment tools do you know about and work with?
- What are the benefits with these tools?
- What are the main challenges?
- Do you think anything is missing in these tools?
- How was the tool created? Main considerations? Built upon other frameworks?
- What is the feedback from companies that have tried the tool?
- How much time do you experience that sustainability/SDG assessment takes?

Appendix B: The Ten Principles of UNGC

Human rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights;

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour;

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility;

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.