

Support Mechanisms for Austrian Startups in achieving the United Nation Sustainable Development Goals

Master Thesis submitted in fulfilment of the Degree

Master of Science

in Management

Submitted to Dr. Sabine Sedlacek

Max Woche 61900720

Vienna, 20th of June 2021

AFFIDAVIT

I hereby affirm that this Master's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

The thesis was not submitted in the same or in a substantially similar version, not even partially, to another examination board and was not published elsewhere.

21.06.2021	
Date	

ABSTRACT

The SDGs are seen as a unique opportunity to raise awareness among the political institutions and the public about the contribution of a sustainable economy to a country's development. One can clearly state that the 2030 Agenda and the 17 Sustainable Development Goals have made their way into the strategies and positions of political decision-makers and institutions.

However, it can be said that the SDGs are not yet present to the majority of individual citizen, which is due to the fact that the 2030 Agenda has not been sufficiently promoted so far and often lacks a link between sustainability projects and the SDGs. To raise awareness about the goals of the 2030 Agenda one must strengthen the support mechanism and its actors in order to motivate and inform startup entrepreneurs to implement sustainable practices and thus create awareness for sustainability.

A qualitative data analysis in the form of in-depth interviews has been identified as an appropriate tool to reveal and contest how well the existing support mechanisms are equipped to guide startups in implementing the SDGs in Austria. The interviews were carried out throughout spring 2021 and accordingly analyzed based on the conceptual framework. The interviews revealed some discrepancy between the participants. Whilst the majority of interviewees considered the SDGs as important, only some entrepreneurs perceived them as a guiding principle and implemented sustainable practices.

This thesis provides the reader with novel insights into how diverse supporting actors influence the implementation of SDGs within startups in Austria. This information will be used to highlight potential points of improvement to best support startups in the implementation of the SDGs.

ACKNOWLEDGEMENTS

Throughout the writing of this master thesis, I have received a great deal of support and assistance.

I would first like to earnestly acknowledge the sincere efforts and valuable time given by my supervisor Dr. Sabine Sedlacek. Her insightful feedback pushed me to sharpen my thinking and brought my work to a higher level.

Also, I would like to mention the support and consideration of my sister Anna Woche. From reading early drafts to giving me advice on the topic, she was as important to this master thesis getting done as I was. You are always there for me.

Lastly, thanks to everyone who participated in the interviews helping me so much.

Table of Contents

A	.FFIDAVIT	Γ	I
A	BSTRACT	7	III
A	CKNOWL	EDGEMENTS	V
L	IST OF T≜	ABLES	IX
		GURES	
L	IST OF AI	BBREVIATIONS	XI
1	INTRO	ODUCTION	1
2	LITEF	RATURE REVIEW	4
	2.1 A	AGENDA 2030	4
	2.1.1	Bridge from Millennium Development Goals to Sustainable Development Goals	
	2.1.2	SDGs and Startups	
	2.1.3	Impact and implications of Startups on the SDGs	14
	2.1.4	SDG Greenwashing	15
	2.1.5	Disincentive	17
	2.1.6	Criticism & Limitations of the Sustainable Development Goals	19
	2.1.7	Sustainability and the Sustainable Development Goals in Austria	20
	2.2 S	TARTUPS	21
	2.2.1	Startup ecosystem	23
	2.2.2	Entrepreneurship	30
	2.2.3	Instruments supporting companies and startups in implementing the SDGs	32
	2.3 S	SUPPORT MECHANISMS ASSISTING STARTUPS IN ACHIEVING THE SDGS	
	2.3.1	Definition of Support Mechanisms	38
	2.3.2	Investment	39
	2.3.3	Support programs	41
	2.3.4	Education	
	2.3.5	Regulatory Framework	45
3	CONC	EPTUAL FRAMEWORK	55
4	METH	IODOLOGY	58
	4.1 E	DATA COLLECTION PLAN	58
	4.2 I	N-DEPTH INTERVIEWS	59
	4.2.1	Expert Interviews	60
	4.2.2	Semi-structured Interviews	61
	4.3 T	Carget Population	61
	44 9	SAMPLING METHOD	62

	4.5	Interview Questions	. 63
	4.6	METHODS OF ANALYSIS	. 65
	4.7	EVALUATION OF METHODOLOGY	. 68
	4.7.1	Limitations	. 68
	4.7.2	Ethical Issues	. 69
5	FINI	DINGS / RESULTS	. 70
	5.1	AWARENESS OF SDGs AMONG ENTREPRENEURS	71
	5.2	Greenwashing	. 74
	5.3	SUPPORT MECHANISM USAGE	. 76
	5.4	GUIDING PRINCIPLE	. 78
	5.5	DISINCENTIVE	. 79
	5.5.1	Lack of funding	. 79
	5.5.2	Time and prioritization	. 80
	5.6	EFFECTIVENESS OF SUPPORT MECHANISMS	. 81
	5.6.1	Dependent effectiveness	. 82
	5.6.2	Not effective	. 83
	5.7	IMPROVEMENTS	. 84
	5.7.1	Structure of the Information on SDGs	. 84
	5.7.2	Responsibility of the company	. 85
	5.7.3	Government	. 87
6	DISC	CUSSION	. 89
7	CON	CLUSIONS	. 90
8	LIM	ITATIONS AND FUTURE RESEARCH	. 92
	8.1	LIMITATIONS	92
	8.2	RECOMMENDATIONS & FUTURE RESEARCH	. 93
9	BIBI	JOGRAPHY	. 94
A	PPENDI	CES	112
	APPEND	ix 1 – Interview Partners	112

LIST OF TABLES

Table 1: Comparison of SDG Compass & SDG Industry Matrix	36
Table 2: Overview of Interviews	70
Table 3: Overview of interviewees	70
Table 4: Awareness of SDGs among entrepreneurs	71
Table 5: Support Mechanisms Usage	76
Table 6: SDG as Guiding Principle	78
Table 7: Disincentive	79
Table 8: Effectiveness of Support Mechanisms	82
Table 9: Improvements	84
Table 10: Interview Partner	112

LIST OF FIGURES

Figure 1: Prioritization of SDGs according to PWC	11
Figure 2: The Stockholm Resilience Centre's SDGs "wedding cake"	12
Figure 3: SDG trade-offs	19
Figure 4: SDG progress in Austria & level comparison	21
Figure 5: Conceptual framework of a sustainable entrepreneurial ecosystem	28
Figure 6: Number of Startups by Location since 2008	29
Figure 7: Support mechanisms in the SDG framework	56
Figure 8: Entire Clustered Codesystem	66
Figure 9: Code Cluster Disincentive	66
Figure 10: Code Cluster Guidance	67
Figure 11: Code Cluster support mechanisms	67
Figure 12: Code Cluster Knowledge on SDGs and support mechanisms	67
Figure 13: Code Cluster effectiveness of support mechanisms	67
Figure 14: Code Cluster Improvements	68
Figure 15: Code Cluster Awareness	68

LIST OF ABBREVIATIONS

Climate-KIC = Climate Knowledge and Innovation Community

CSR = Corporate Social Responsibility

EIT = European Institute of Innovation & Technology

ESG = Environmental, social and governance

GRI = Global Reporting Initiative

ISO = International Organization for Standardization

KPMG = Klynveld Peat Marwick Goerdeler (a company providing Audit, Tax and

Advisory services)

MDGs = Millennium Development Goals

MSME = Micro, Small & Medium Enterprises

PCSD = Policy Coherence for Sustainable Development

SDGI = Sustainable Development Goal Investing

SDGs = Sustainable Development Goals

SE = Social entrepreneurship

SFDR = Sustainable Finance Disclosure Regulation

SME = Small and medium-sized enterprises

UN = United Nations

WBCSD = World Business Council for Sustainable Development

WHO = World Health Organization

1 Introduction

On 1 January 2016 the United Nations officially announced the 17 Sustainable Development Goals (United Nations, n.D.). These represent a framework of goals to be implemented into national policies within the member countries of the United Nations which should serve to secure sustainable development on an economic, social, and ecological level worldwide (United Nations, 2021). The overall international strategy is the Agenda 2030.

The 2030 Agenda which aims to implement the 17 sustainable development goals, were signed by the government of the 193 UN member states (WWF Österreich, 2015).

According to Cavalcanti (2018) startups as well as companies play a key role in the implementation of the SDGs. Now one might ask themselves how small companies as startups can have such an impact on the implementation of the SDGs. Startups are one of the main drivers of innovation and solve problems that are underserviced. This is where the Sustainable Development Goals come into play, as they offer a wide variety of problems that are underserviced and that can be targeted by startups. Startups address these issues in a new, innovative, and incremental way (Järvilehto, 2020).

On the one side, the SDGs provide an overview of the global challenges. On the other side, they showcase the opportunities that business can take advantage of. Furthermore, the SDGs can be used in order to achieve risk minimization (Lyytimäki, et al., 2019). This can be done for example by evaluating the SDGs in terms of the threats and opportunities that each goal might bring to the startup. Thus, one can say that in order for startups to operate successfully and resiliently, they must integrate one of the 17 SDGs into the corporate strategy (United Nations, 2019). The priority and potential of the SDGs are already being acknowledged by an increasing number of companies. (Neufeld, 2021). These objectives and goals are in one way or another interconnected and will only be accomplished through a concerted approach by policymakers, corporations, and society at large. (Neufeld, 2021).

The startups should be aware that they can only be successful in the long run if the solution to the SDGs and the sustainable matters is part of the corporate strategy (Deloitte,

2017). To incorporate this sustainable orientation into the business strategy, the SDGs provide the main guideline, supported by the 169 sub-goals.

Cavalcanti (2018) mentioned that "Resources to support such startups through different phases of growth startups can create break-through solutions that have tremendous impact in the society and on the environment". These resources can be provided by different actors and stakeholders determined as support mechanisms. The support mechanisms can provide financial resources and a network of partnership and enhance the sharing of technologies.

According to Butcher (2020) Vienna has emerged as a European startup hub due to several initiatives such as new accelerator programs and the government's startup program. However, since the release of the progress report in late 2020, Austria has been criticized due to its low commitment in the implementation of the SDGs (Wiener Zeitung, 2020). One of these critics was that the Federal Government failed to link the aforementioned Agenda 2030 with concrete measures in the 2017-2022 government program (Obrovsky, 2019). Additionally, it was criticized that there is a lack of coordination of implementation or steering of a coherent all-Austrian implementation (Obrovsky, 2019).

Perceiving such criticism provides the Austrian government with additional reasons as to why research into the field of enhancing the implementation of the Sustainable Development Goals. Startups and organizations can use the release of the progress report as a turning point for stronger implementation of the 2030 Agenda.

Finally, the goal of this Master Thesis is to provide the reader with valuable data, that may reveal new insights about support mechanisms and their effectiveness within Austria. Moreover, the research may contribute towards the collection of valuable data which may lead to further insides on how to enhance and improve the support mechanisms of the member states of the European Union.

Having a qualitative approach in the thesis will enable detailed information about the interviewee's thoughts and perspective. It is expected that the results of this thesis allows different stakeholders a new view on how the support mechanisms can be adapted to best support startups in the implementation of the Sustainable Development Goals.

The ultimate goals of thesis will be to answer and elaborate on the central research question of this thesis which has been determined as:

How well are the existing support mechanisms equipped to guide startups in implementing the SDGs?

To guide the research, the following sub-research questions where established:

- 1. How well known are the SDGs in Austria and especially in the startup environment?
- 2. Do the SDGs provide a guiding principle for new business areas and models?
- 3. How effective are these support mechanisms?
- 4. What framework conditions would have to change for companies to consistently focus on future viability and their business models on sustainability?

To most effectively answer the guiding questions above, the thesis will provide an understanding of the key concepts in a literature review. These would be the Sustainable Development Goals and the Agenda 2030 with insights into greenwashing, disincentives, criticisms, and limitations as well as sustainability as a whole. Following, the thesis will provide an understanding of startups, their ecosystems, and phases, with a small deep dive into entrepreneurship. Correspondingly the support mechanisms that assist startups in achieving the SDGs will also be explored. The literature review will be followed by an explanation of the prevailing methodology, a qualitative content analysis using semi structured interviews to analyze and evaluate the research questions.

2 LITERATURE REVIEW

To answer the research question on how well the existing support mechanisms are equipped to guide startups in implementing the SDGs in Austria, three key terms are defined as a first step in the following theoretical part of the thesis. Building on this, a conceptual framework will be developed that identifies how the support mechanisms within Austria assist the startups.

The three key terms Sustainable Development Goals, startups and support mechanisms are to be defined using current literature and statistical information. The definitions begin with the Agenda 2030 and the Sustainable Development Goals, followed by a definition of what a startup is. Finally, the support mechanisms will be elaborated on.

2.1 Agenda 2030

On the 25th of September 2015 the Sustainable Development Goals were adopted and set by the United Nations and agreed upon by all 193 countries (United Nations, 2015). The SDGs consist of seventeen universal and interlinked goals with the aim of "a world free of poverty, hunger, disease and want, where all life can thrive" (United Nations, 2015). They are all about a transformation towards global, sustainable development for People, Planet, Prosperity, Peace and Partnership (Sacling Up Nutrition, 2015). The aim of the UN is to achieve these goals by 2030.

The seventeen sustainable development goals are as follows (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016):

- 1) "End poverty in all its forms everywhere" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 15)
- 2) "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 16)
- 3) "Ensure healthy lives and promote well-being for all at all ages" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 17)

- 4) "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 19)
- 5) "Achieve gender equality and empower all women and girls" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 21)
- 6) "Ensure availability and sustainable management of water and sanitation for all" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 22)
- 7) "Ensure access to affordable, reliable, sustainable, and modern energy for all" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 23)
- 8) "Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 23)
- 9) "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 25)
- 10) "Reduce inequality within and among countries" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 26)
- 11) "Make cities and human settlements inclusive, safe, resilient, and sustainable" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 27)
- 12) "Ensure sustainable consumption and production patterns" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 28)
- 13) "Take urgent action to combat climate change and its impacts" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 30)
- 14) "Conserve and sustainably use the oceans, seas, and marine resources for sustainable development" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 30)
- 15) "Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land

- degradation and halt biodiversity loss" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 32)
- 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" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 34)
- 17) "Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development" (Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 35)

The sustainability challenges to which companies can contribute, are listed in an easily accessible manner, and have clearly formulated goals. The SGDs should be understood in the sense of entrepreneurship, which is used for the development of companies and startups and not as a specification that must be achieved.

Furthermore, the Paris Agreement must be mentioned within this context (Denchak, 2021). Both the Paris Agreement and the Sustainable Development Goals were adopted in 2015 and represent a universal vision in terms of sustainable matters. However, one can say that the Paris Agreement is particularly focused on climate change, whereas the SDGs rather represent an overall sustainable agenda (Denchak, 2021). Therefore, for the purpose of the thesis only the Sustainable Development Goals will be taken into consideration.

The goals deal equally with social, ecological, and economic challenges. These should enable future generations to live on planet earth as well and make the current generation think about their impact. Each goal has a certain number of sub-goals, which sum up to a total of 169 goals. The SDGs from the United Nations call for joint solutions to global challenges. Moreover, they offer companies a prosperity of innovation potential and access to new markets.

According to the United Nations Development Program (2017), there is no one institution that can enhance and tackle all the SDGs, but it is the combination of several institutions and their ability to work in coherence which defines whether a country is able to promote the implementation of the SDGs. Therefore, it is crucial to bring in all stakeholders,

including the support of the government to successfully implement and achieve the sustainable development goals.

Having established a simple context of the Agenda 2030, in order to explain the complexity of the SDGs for the further understanding of this thesis, the previously created Millennium Development Goals are discussed in this chapter. Afterwards, the SDGs in the startup scene will be analyzed and the impact of startups on the SDGs will be discussed. Critical issues such as greenwashing and criticism as well as limitations in relation to the SDGs must also be discussed and the SDGs addressed and analyzed in the context of this thesis, Austria.

2.1.1 Bridge from Millennium Development Goals to Sustainable Development Goals

The Millennium Development Goals (MDGs) were developed in 2000 and signed by 189 countries, who wanted to achieve a set of eight measurable goals (SDG Fund, n.D.).

The eight millennium development goals were as follows (Way, 2015):

- 1) "Eradicate extreme poverty and hunger" (Way, 2015, p.4)
- 2) "Achieve universal primary education" (Way, 2015, p.4)
- 3) "Promote gender equality and empower women" (Way, 2015, p.5)
- 4) "Reduce child mortality" (Way, 2015, p.5)
- 5) "Improve maternal health" (Way, 2015, p.6)
- 6) "Combat HIV/AIDS, malaria, and other diseases" (Way, 2015, p.6)
- 7) "Ensure environmental sustainability" (Way, 2015, p.7)
- 8) "Develop a global partnership for development" (Way, 2015, p.7)

These goals were supposed to be achieved by the year 2015. In 2010 at the end of the MDG summit clear success yet also defeats had to be admitted (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, 2021). There was an evident progress made in reducing poverty in Asia and North Africa which gave cause for joy (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, 2021).

Especially for the less developed countries it was more difficult to achieve the goals (Fehling, Nelson, & Venkatapuram, 2013). In addition to this, the MDGs have been

criticized due to the extremely low global and public participation (Honniball & Spijkers, 2014).

Nevertheless, there have been several achievements in the aftermath (United Nations Development Programme, 2021):

- More than 1 billion people have been lifted out of extreme poverty
- Child mortality dropped by more than half
- The number of out of school children has dropped by more than half
- HIV/AIDS infections fell by almost 40 percent

Source: United Nations Development Programme, 2021

After the 15 years had passed, the Millennium Development Goals had to be adjusted and therefore the Sustainable Development Goals were established. While the MDGs were directed more towards developing countries, the SDGs had been established for all countries and their governments, organizations, businesses and all the people of the world to recognize, understand and implement as relevant (Quality Austria, 2019). The 17 SDGs replaced the 8 Millennium Development Goals, which focused on solving social challenges (United Nations Development Programme, 2021). A key difference between the SDGs and the MDGs is their universal validity and applicability (Oelsner, 2016). Every EU country is therefore facing new challenges and must develop a national strategy for the implementation of the sustainability goals (Kumar, Vivekadhish, & Kumar, 2016).

2.1.2 SDGs and Startups

The SDGs represent the central global challenges of this century and thus asks for all social actors and stakeholders to counter these (Bayrisches Landesamt für Umwelt, 2020). Thus, it is also the task of companies and startups. At the same time, they offer startups a guide for strategic development and sustainable positioning.

The United Nations SDGs serve as a common guide for companies and startups to align their goals and activities with sustainable development. As the SDGs target at all United Nations member states, including all their stakeholders, there is no specific guide for companies and startups within the 2030 Agenda. However, guides such as the Why, When and How Guide for Business, by Mazzoni (2017), provide a framework for both startups

and large companies in order for them to get involved in the implementation of the SDGs. These guides and frameworks will be elaborated on in a later stage of this thesis.

Depending on different factors such as the industry or business model startups are exposed to different risks (Scheerer, 2020). These risks vary from financial or competitive risks over to environmental, political, and economic risk. However, they are also able take advantage of different opportunities. For instance, the United Nations Global Compact states that the main aim of the SDGs is to guide startups companies in way which shows what expectations external stakeholders have in terms of sustainable matters (Scheerer, 2020).

According to the Department of Economic and Social Affairs (2020):

"MSMEs play an important role in the wider eco-system of firms. Start-ups and young firms, which are generally small or micro firms, are the primary source of net job creation in many countries and are the driving force of innovation and sustainability in the private sector." (p. 3)

A study from Global Compact and Accenture showed that almost nine out of ten CEOs, which is about 87 percent, see the SDGs as an opportunity to rethink their approach to creating sustainable value for their business and their customers (Steinert, 2017). According to Lise Kingo who is the Executive Director of the United Nations Global Compact, the "CEOs are accepting a mandate for radical action and see a window of opportunity for transformation" (as cited in Business Art, 2016, own translation). The continued study from Accenture and Global Compact showed that in 2019, already 48 percent of the CEOs which were interviewed, said that are implementing sustainability into their operations (Lacy & Long, 2019) According to Lacy & Long (2019), "challenging decade ahead in light of geopolitical, technological and socioeconomic uncertainty" and "stakeholder expectations" are driving ventures and their leaders to be more active in terms of the sustainability agenda. This shows that sustainable thinking and the sustainable development goals are increasingly gaining importance in the formation of companies and in the way that companies work.

2.1.2.1 Individual Sustainable Development Goals

At the outset, it should be mentioned that not all seventeen SDGs are equally important for all companies and startups. Sarah Bostwick, a former manager of reporting for the U.N. Global Compact stated that "There is no company that is working on all 17 SDGs, and that's not what they're meant for" (Mazzoni, 2017, p.6). However, one can say that for all stakeholders, the sustainable development goal 17 generally applies as the overarching goal. This goal says "Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development" (United Nations, 2015, p.14). All companies and startups can work together with all their stakeholders to realize this goal.

Subsequently it is equally important to take a closer look at the other SDGs, including the 169 sub-goals and to assess their relevance for the company or startup. This can be done by using for example either the SDG Compass or the SDG industry matrix (Jandeisek, Kannenberg, Moehrer, & Appiah, 2016). It is important to note that the individual SDGs should not be viewed in isolation, but in the overall context, because they and the possibility of achieving them are directly or indirectly interdependent.

PricewaterhouseCoopers conducted a survey from 2017 to 2018 on the prioritization of the sustainable development goals (Cordova & Celone, 2019). The survey made a distinction between citizens and business in terms of the prioritization (Cordova & Celone, 2019). The results of the survey can be seen in the figure 1.

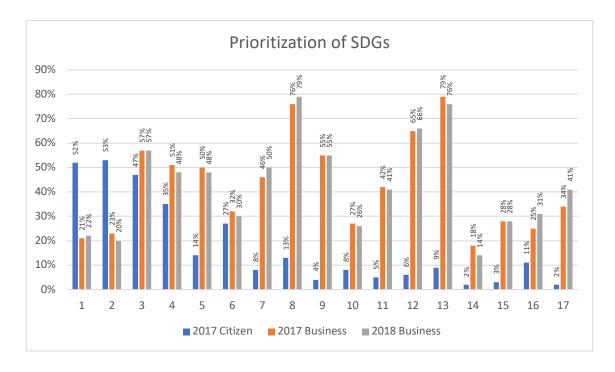


Figure 1: Prioritization of SDGs according to PWC (as cited in Cordova & Celone, 2019)

Figure 1 clearly shows that businesses are interested in some SDGs more than in others, compared to the citizens. Whereas the citizens tend to focus more on the first SDGs concerned with hunger, health and diversity, business are viewed to focus on the economic factors such as economic growth and infrastructure resilience. One can see that the Sustainable Development Goal 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) is in the top five SDGs in terms of the importance for industries.

However, there are several sustainable development goals which may be easier to target for companies and startups. According to Cordova & Celone (2019) the sustainable development goals 5, 7, 8, 9, 12 and 13 are the most essential on an organizational level. Additional they mention that: "... stakeholders are differently interested in SDGs: citizens prefer aspects related to poverty and hunger (SDG 1, SDG 2), companies to profit and savings aspects (SDG 8)" (Cordova & Celone, 2019, p.9) which is supported by the data seen in Figure 1.

Another interesting model is that of the Stockholm Resilience Centre's SDGs "wedding cake" which displays the Sustainable Development Goals in three dimensions (Startup Valley, 2020).



Figure 2: The Stockholm Resilience Centre's SDGs "wedding cake" (Startup Valley, 2020)

As seen in the Figure 2, the Sustainable Development Goals can be categorized into three main groups. These groups are Economy, Society and Biosphere. Especially interesting for companies are the SDGs affecting the Economy, being Goals 8, 9, 10 and 12. According to Pretlove & Blasiak (2018, p.8), the factors act "towards industry, innovation and infrastructure; reduced inequalities; responsible consumption and production; and decent work and economic growth that is decoupled from environmental degradation". The sections below will elaborate on the sustainable development goals which are especially interesting to companies and ventures mentioned above.

2.1.2.1.1 Sustainable Development Goal 5

Companies have an influence on the sustainable development goal 5 which says: "Achieve gender equality and empower all women and girls" (United Nations, 2015, p.14). This includes ending discrimination against women and girls, equal opportunities also in leadership roles, and ending the gender pay gap. According to Player, Randsley de Moura, Leite, Abrams, & Tresh (2019), the proportion of women in leadership positions in business, politics and science is still too low. Ventures can have a fairly large impact on this goal, as they can promote the number of women working in their

companies and balance the number of women in management positions and adjust renumeration ratios of women to men.

2.1.2.1.2 Sustainable Development Goal 8

The sustainable development goal 8 calls for a "...sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" (United Nations, 2015, p.14) and is therefore addressed at all economic stakeholders and players. Sustainable economic growth creates jobs on the one hand and is the basis for an efficient welfare state on the other hand (Bundesregierung Deutschland, 2019). It is about using resources sparingly and not living at the expense of future generations (Bundesregierung Deutschland, 2019). Therefore, it is important to align the economic performance in an environmentally compatible way.

2.1.2.1.3 Sustainable Development Goal 9

Another sustainable development goal that is especially import for small businesses and startups is goal 9. This goal addresses to: "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" (United Nations, 2015, p.14). As innovation plays a predominant role in this phase of the company Cordova & Celone (2019, p.8) state that ,... in the industrial context, innovation appears as a fundamental driver for the pursuit of SDGs at every stage". According to Ali et al. (2018, p.3) "Infrastructure and industry innovations are considered the backbone of economics for sustainable development". Cordova & Celone (2019) argue that that startups and companies can link the concept of innovation to each sustainable development goal. Furthermore, they argue that this goal helps startups from the initial idea stage to the development stage with measurable indicators, as it promotes innovation (Cordova & Celone, 2019). With the help of innovation, businesses are intended to provide creative approaches to matters such as sustainable business practices, climate and resource protection, and social challenges.

2.1.2.1.4 Sustainable Development Goal 12

From an economic perspective, sustainable development goal 12 is probably the most important. The goal has the aim of ensuring "sustainable consumption and production patterns" (United Nations, 2015, p.14). Companies that produce goods must deal with

sustainable production and efficiently use the natural resources accordingly. Furthermore, it is crucial that waste must be counteracted. An example for this would be the circular economy as well as sustainable management. As an intermediary between manufacturers and consumers, the retail sector can work in both directions toward goods that are produced and used as sustainably as possible.

2.1.2.1.5 Sustainable Development Goal 17

As mentioned previously the sustainable development goal 17 aims at the collective responsibility to bring all people along on the path to sustainable development (United Nations, 2015). The Report on the Implementation of the Sustainable Development Goals from the Austrian Federal Chancellery (2020) mentioned that especially the social partners have a critical role when it comes to the implementation of the SDGs when talking about the social and economic dimensions. This objective is particularly important for companies operating in developing countries, as here, for example, the aim is to prevent multinational companies from relocating their profits and thus their tax liability (Presse- und Informationsamt der Bundesregierung, 2020).

2.1.3 Impact and implications of Startups on the SDGs

After establishing the relation of the SDGs to startups, it is essential to identify the impact as well as the implications of startups on the SDGs. The SDGs represent a grand vision that cannot be implemented without the commitment of startups and companies. However, it is important to mention that the commitment to the SDGs is still voluntary, as all ventures can decide for themselves whether they want to pursue one, several or no goals.

Järvilehto (2020) argues that one of the main causes for startups to fail is that the entrepreneurs are not able to find a problem that is significant enough for a majority of people. Conversely the solution to this problem is obvious: the 17 sustainable development goals with their 169 sub targets. According to Neubauer & Calame (2018), the core issues that are addressed by the SDGs are in the field of "agriculture, environment, health, urban and rural development, transportation, energy and social issues". Hence, the SDGs provide the startups with a variety of underserved problems.

According to Järvilehto (2020) "... startups and the brainpower of the often-young entrepreneurs driving them present a tremendous opportunity to solve meaningful global problems". At the same time, Dermot (2019) argues that "... innovative companies can be new entrants that serve previously unmet needs" but at the same time "... are those that introduce revolutionary solutions to relevant issues". Hence, startups can target the underserved problems that are formulated in the objectives of the SDGs.

Startups play a key role in implementing the SDGs within a country, as they can enhance innovative entrepreneurship for sustainable development (UNECE, 2016). It is argued that "while large, established companies account for significant spending and employment in research and development, truly path-breaking, disruptive innovation often comes from newly created start-up companies." (UNECE, 2016). This shows that startups have the capabilities to create innovative solutions to challenges around sustainable development.

The SDGs call for an active participation of various startups and demand not only their creativity but also their innovation in order to create value for the common good. This includes, for example, reducing poverty, enhancing quality education, and protecting life on land and underwater. However, startups do not necessarily look at problem such as poverty and climate change and "think about the many obstacles they will face in solving them or the massive quantity of time required to solve them", but they rather "look at how attainable the transformational ideas are, then they will give their blood and soul to work on their Minimum Viable Product" (AIC Raise, 2020). Therefore, one can say that sustainable development depends on innovative and competitive startups.

2.1.4 SDG Greenwashing

Although the previous chapters have created a rather positive outlook on SDGs, negative aspects such as Greenwashing arise within the discussion of the goals as well. More and more companies are advertising themselves or their products and services with green promises that, on closer inspection, turn out to be a hoax (Hessenmagazin, 2021). Instead of acting sustainably, companies hope to make a bigger profit through greenwashing. Greenwashing can be defined as a strategy with which actors seek to create an image of ecological responsibility through the targeted dissemination of disinformation (Jong, Huluba, & Beldad, 2019, p. 41-43). The information is false in that the relevant

environmental criteria are not comprehensively fulfilled. In terms of the SDGs, one could give it the name of SDG greenwashing (Jong, Huluba, & Beldad, 2019).

According to Becker-Olsen & Potucek (2013, p.47), "Greenwashing refers to the practice of falsely promoting an organization's environmental efforts or spending more resources to promote the organization as green than are spent to actually engage in environmentally sound practices". In the literature by Delmas and Burbano (2011, p.64) the term greenwashing is defined as misinforming the customers regarding the environmental practices that the organizations undertake as well as of a product or service.

Beldad et al. (2019, p. 39) argue that "various studies have shown that greenwashing is a widespread phenomenon". This has increased trust problems among the stakeholders. Netto et al. (2020, p. 2) claim that there are problems for customers to recognize "true green claims from companies". Research and studies additionally identify that if consumers discover that a company is greenwashing, that this has a significant damaging influence on their behavior and intentions towards the company (Beldad, Huluba, & Jong, 2019, p.40).

In terms of the sustainable development goals Vives (2019) states:

"... some firms report actions that supposedly contribute to their achievement that are either unrelated, will have minimal impact or are part of their regular activities. Others are using their organization's support for the SDGs to sell their products, misleading the public as to their company's actual impact on sustainable development."

The problem that Vives (2019) mentions is that the 17 SDGs and their 169 corresponding goals are formulated so all that companies can theoretically claim that any of their actions and strategies contribute to the achievement of the sustainable development goals. Furthermore, the SDGs may cause the companies to report on actions that have already be implemented, rather than implementing new actions to help achieve the SDGs. This causes discrepancies between what is reported and what actions have been taken (Vives, 2019).

According to Vives (2019) a company must be able to answer the following five questions with yes in order for their SDG measures to be legitimate:

"1. Is this action incremental (done because of the SDGs)?

2. Is it material (transformative, not just petty things)?

3. Is it contextual (part of the company's strategy)?

4. Does it have a measurable impact?

5. Most importantly, is it sustainable over time or just a sporadic, one-time

action?"

Source: Vives, 2019

These questions can be used by companies and startups to evaluate their contribution to

the SDGs.

According to Morgenstern (2020, own translation) "only 12 percent of companies have

integrated the SDGs into their target system after around three years". In this context it is

often criticized that the companies, in the case of the thesis the startups, will solely

implement the goals to promote their image despite that they did not implement these into

their business holistically (Morgenstern, 2020). Correspondingly a study by Dowd (2018)

on the implementation of the SDGS within business, found that "just over half of the 602

respondents stated their company is using the SDGs as a reporting and communications

framework".

Adding to this, it is imperative for governments and other actors such as investors to

check if startups contribute to greenwashing. Stahlberg Nordegren, the founder of a

Swedish start-up that works to reduce food waste, stated that "No one has ever checked

if what we say is true or not," (as cited in Billing, 2020). This highlights the problem that

there is too little monitoring in terms of how green and sustainable startups really address

the stated problems. However, it must be said that any steps that a company takes in order

to be sustainable is a step in the right direction. Therefore, it is crucial to find out if

startups think that greenwashing is a problem and what their standpoint towards this topic

is.

2.1.5 Disincentive

Although the SDGs might be of benefit for startups and the economy, there might be a

few reasons disincentives for entrepreneurs to not implement the SDGs into their

businesses. The first disincentive for startups is that they may not have the capacities and

17

resources to invest into sustainable matters. According to Tulder & Zanten (2018), companies do not contribute to the implementation of the SDGs because they are too engaged and occupied with their day-to-day activities. This statement is supported by Dalum (2019), who states that "Most companies prioritize development but many struggle with lack of time and resources".

However, it must be mentioned that startups that decide to promote the SDGs should focus on what they can achieve and where they can have the greatest impact. This requires prioritizing the SDGs in terms of their own business model. Focusing on a few SDGs or even just one is important to develop a good concept for the overall implementation. Even if all topics are important, no startup or company can address all of them at the same time.

According to McGuire (2021) startups may struggle investing time and financial resources into sustainable matters and the SDGs. He argues that startups oftentimes have limited resources in terms on money and employees and hence do not prioritize the SDGs (McGuire, 2021).

However, it must be mentioned that companies must develop into the direction of sustainability to stay competitive. Although working towards the SDGs may be time consuming, companies can draw a great benefit from it. Hence one can say that t (Dalum, 2019).

Another disincentive for startups could be that sustainability may not be profitable in the short term and cost money. As Frazee (2019) states "Shifting business practices to be more environmentally-friendly can be expensive, at least in up-front costs, which makes businesses averse to making necessary changes". This can be a disincentive, especially for startups, as they need the money in the first stages to grow and capture the market. However, it must be said that most sustainable actions in a business oftentimes profitable in the long-run (Frazee, 2019). Furthermore, as sustainable startups may be viewed as riskier by investors, they oftentimes have their ratings devalued (Horky, 2020).

To conclude the topic of disincentive, the literature identifies that there are multiple obstacles that potentially come into the way of an entrepreneur implementing sustainable development into their startup.

2.1.6 Criticism & Limitations of the Sustainable Development Goals

Corresponding to the chapter above, SDGs are not always linked to positive aspects. It is important to note that companies and startups might run the risk of achieving one goal at the expense of another goal, referring to the term tradeoff. Filser et al. (2019) mention that the sustainable development goals could have negative results on other goals. This could for example be Goal 8 (Decent Work and Economic Growth) and Goal 1 (No Poverty), negatively impacting Goal 13 (Climate Action) as this may increase production and consumption which are considered as less sustainable. This trade-off is shows in figure 3 below.

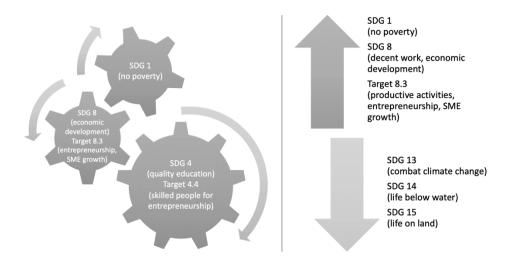


Figure 3: SDG trade-offs According to (Filser, Kraus, Roig-Tierno, Kailer, & Fischer, 2019)

Trade-offs should however be seen as suggestions for a constructive and solution-oriented debate. Accordingly, it is increasingly necessary to develop a greater awareness of the need to identify conflicting goals as early as possible and to promote conflict resolution in the interests of sustainable development, regardless of the levels of implementation or the areas of society. Therefore, one can say that it is important to break down the complexity of the SDGs to make them interesting to the general public.

Veglio (2020) stated that:

"Although significant progress has been made in recent years, we are not yet on the cusp of the wholescale transformation of economies, societies and business models that is needed. We cannot yet see a clear path to bringing about a sustainable world at the rate or scale required, even though we have a much better idea today of what needs to be done than we did 10 years ago."

Subsequently, the question might arise: How can startups and companies help to achieve the sustainable development goals and what role do the support mechanisms play?

Another criticism towards the sustainable development goals has been found in terms of measuring the impact. It has proven to be difficult to measure and track the progress that has been made concerning the SDGs. According to Swain & Yang-Wallentin (2019) the 169 sub-targets make it even more difficult to manage and supervise the progress of the goals (p. 97).

2.1.7 Sustainability and the Sustainable Development Goals in Austria

Having established a profound understanding of the origin of the SDGs, their relation and implication in connection with startups, as well as the negative aspects and limitations it is essential to view the SDGs in the setting of the thesis: Austria.

The European Environment Agency (2020) argued that Austria is paying special attention to the SDGs 2, 6, 7, 13 and 15. In 2020, Austria presented its first voluntary progress report on the implementation of the UN Sustainable Development Goals at the UN forum in New York (Der Standard, 2020). It has also been found, that "while the Austrian government [spoke] of "positive progress" of "positive progress" on 80 percent of the indicators assessed, non-governmental organizations (NGOs) have criticized "low commitment" to implementation in the past" (Der Standard, 2020).

According to the progress report, the biggest challenges lie in the gender pay gap and in the high energy consumption. This means that Goals 5 and 7 are the ones that Austria must pay special attention to.

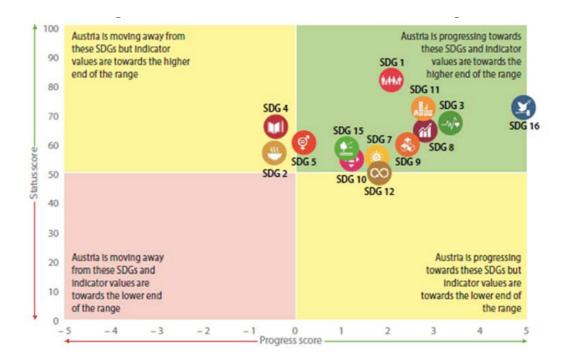


Figure 4: SDG progress in Austria & level comparison (Kammer für Arbeiter und Angestellte für Wien, 2020)

Figure 4 displays a matrix which shows the advancements of the SDGs in Austria in comparison to other EU countries. Despite the criticism mentioned above, the diagram clearly shows that Austria is progressing to the higher end of the range and thus to a higher extent than other EU countries for 14 of the SDGs with only 3 SDGs falling into a lesser progress or status score. However, there is critic that the progress is oftentimes slow in some areas.

Furthermore, the OECD Development Co-operation Peer Review on Austria in 2020 stated that Austria is struggling with a lack of awareness on a public and political level (OECD, 2020). The OECD (2020) argued that the reason for the lack of awareness was that the rollout of the updated strategy for communication and education was to slow and that there was a lack of government engagement with vital stakeholders for example the private sector (OECD, 2020). Furthermore, it was argued that there have not been any changes in the public awareness concerning the SDGs in the recent years (OECD, 2020).

2.2 Startups

To analyze and determine the effectiveness of the support mechanisms towards the UN SDGs for startups in Austria, one must first define what a startup is and what characteristics it has.

One can say that the term startup is derived from the term "to start up", meaning to found something, to get something going. According to Blank (2013) a startup is a temporary organization with the aim of finding a business model which is scalable and replicable. Taking this definition of a startup one can say that a startup is focused on looking for a business model, while already established companies have an existing business model with the aim of fulfilling this.

Adding to the definition above, Ries (2011) defined a startup as a venture with the aim of creating a new product or service under market conditions of uncertainty.

Furthermore, Achleitner (2018, own translation) defined a startup as a "young, not yet established companies, which are founded to realize an innovative business idea (often in the fields of electronic business, communication technology or life sciences) with low start-up capital and usually depend very early on obtaining either venture capital or seed capital (possibly also through business angels) to expand their business and strengthen their capital base". As a result of seeking "external funds such as venture capital", it is necessary for the company to have an exit, in the course of which the investors realize their investments (Achleitner, 2018, own translation).

According to the Federal Association of German Startups a startup is defined by three characteristics (Kollmann, Hensellek, Jung, & Kleine-Stegemann, 2019):

- "1. The company is younger than 10 years
 - 2. Have a (highly) innovative technology and/or business model
 - 3. Own or strive for significant employee- and/or sales-growth"

Source: Kollmann, Hensellek, Jung, & Kleine-Stegemann, 2019, p. 22, own translation

The entrepreneur needs to develop a business model, which must be planned and worked out precisely. Therefore, one can say that the central point of a startup is the innovative business plan in the startup phase.

In fact, "Only a few startups fulfill the [...] requirements for a startup, as they are neither based on innovative business ideas nor are they particularly fast-growing" (Was ist ein Start-up-Unternehmen, 2020, own translation). Therefore, it is important to differentiate startups from small and medium-sized enterprises. SMEs strive for a business model that works from the initial stages and that does not demand major capital outlays (Hecht,

2017). In addition to this, SMEs don't aim for a market disruption or growth while startups "set out to search for the right business model that scales to enormous heights in a massive market" (Hecht, 2017). One can say that SMEs "adopt a widely used business concept instead and enter an existing market as retailers, craftsmen, or freelancers" (Was ist ein Start-up-Unternehmen, 2020, own translation).

From the definitions above, one can say that a startup is clearly defined as a newly established business with an innovative business idea. The definition from the Federal Association of German Startups will be used accordingly, as it adds measurable factors to the definition which will be used for the selection of the startups in the methodological part of this thesis.

In addition to providing a general definition of startups, this chapter also deals with the startup ecosystem. It then discusses the different phases of a startup. When talking about startups, the term "entrepreneurship" is also frequently encountered, which is why it is also covered in this chapter and analyzed in the startup context. Finally, it is essential to discuss the various instruments that companies and specifically startups have at their disposal in the implementation of the SDGs.

2.2.1 Startup ecosystem

To understand the impact of the support mechanisms on the startups in Austria, one must understand what a startup ecosystem, also known as entrepreneurial ecosystem, is. Therefore, it is crucial to investigate already existing definitions and to put these into the context of the SDGs. Below several definitions of startup ecosystem will be listed, which will be used for the further course of this thesis:

- According to Escalfoni et al. (2018) startups ecosystems "are creative environments that play an important role in generating innovation and economic development" (p. 1, own translation).
- Cukier et al. (2016) defined a startup ecosystem as "limited region within 30 miles (or one hour travel) range, formed by people, their startups, and various types of supporting organizations, interacting as a complex system to create new startup companies and evolve the existing ones" (p. 1).

- The definition given by Stam & van de Ven (2021) states that a startup ecosystem "comprises a set of interdependent actors and factors that are governed in such a way that they enable productive entrepreneurship" (p. 809).
- Moore (2020) defined a startup ecosystem as "complex system of entrepreneurs, startups, capital providers, Governments and other players who are all interacting with one another to help startups within the ecosystem reach their potential". This definition will be crucial in the next chapter, as one must comprehend the roles of the different actors within the startup ecosystem.

The definitions show that a startup ecosystem is defined by all the stakeholders who contribute towards the environment. Hence, one can use the definitions of startup ecosystem above and create an overall definition suiting the research of this thesis.

A startup ecosystem can be defined as a creative environment which nurtures the creation of new ventures and the evolvement of already existing ones. In this ecosystem, a large number of actors have a direct or indirect influence on the development of the startup landscape. The startup ecosystem consisting out of several actors and factors which are interrelated and interconnected. It is important to highlight the term "interconnected", as the startups within the ecosystem are not able to exist or function without the other startups, as they are linked in a relationship that is mutually beneficial. The exchange and interaction of all participants is what creates the diversity and ultimately the success of the ecosystem.

The following chapters will thus further identify the various actors in a startup ecosystem as well as address the sustainability within the startup ecosystem and provide an understanding of the Austrian startup ecosystem.

2.2.1.1 Actors in the startup ecosystem

There is no given framework of which actors are influencing a startup ecosystem. Hence, it will be important for later chapters to identify the key players with the largest influence on startups within the ecosystem.

According to EU4Digital (2020) Platform a startup ecosystem is supported by actors who:

"play a role in creating an inclusive network of entrepreneurs in the local

community through running a co-working space, mentoring young entrepreneurs,

or organising networking events

play a role in government and are involved in making the policy that affects

start- ups

play a role in the innovation and entrepreneurship infrastructure and service

menu"

Source: EU4Digital, 2020

Motoyama & Knowlton (2017), mentioned that the most influential actors within the

startup ecosystem are "...entrepreneurs, support organizations focusing on

entrepreneurship, supporting individuals and investors, entrepreneurial events, and

universities" (p. 19)

Hence, one can construct a list that comprises all the actors that are involved in the startup

ecosystem:

Founders

Investors

Venture capital providers

Incubators

Business angels

Mentors

Consultants

Universities

Government

Industrial, IT and research companies

By means of these viewpoints, different actors will be defined and elaborated on in the

section below, in terms of their impact on the startup ecosystem. These actors are startups,

educational institutions, funding providers, incubators and accelerator programs, and the

government.

25

2.2.1.1.1 Startups

Startups themselves are the most important part of the startup ecosystem. This is supported by the fact that they are interrelated and interconnected, mentioned earlier. The startups play a major role in the country's economic growth, due to their innovation and disruption.

2.2.1.1.2 Educational Institutions

Educational institutions such as schools, universities and colleges must not be disregarded as they provide talent, one of the most important assets for the startup ecosystem. On the one side educational institutions are a facilitator for knowledge, as students may use the knowledge acquired to help startups to spot trends and address challenges. Moreover, startups may even be launched by students studying at these educational institutions by using the knowledge they acquired during their studies. On the other side they provide a pool of human resources for already existing startups.

Therefore, it may be of importance for startups to work in an ecosystem, in which top universities are situated. However, educational institutions are not only important due to the talent that they provide but also because of the knowledge creation which can lead to innovation. Hence, the educational institutions can be seen as an accelerator for knowledge on the SDGs by providing the "necessary knowledge, skills, and mindsets to contribute to solving the complex sustainable development challenges" (SDSN Secretariat, 2020). This is also called upon the SDGs itself, as the sub goal states that "all learners acquire the knowledge and skills needed to promote sustainable development...", which is crucial to implement the SDGs (SDSN Secretariat, 2020).

2.2.1.1.3 Funding Providers

Talent may be important for a startup and the ecosystem around them, however, there is no startup without money. Funding providers include angel investors, venture capital companies, crowdfunding, various types of loans and grants, bootstrapping and government programs. An overview of the main funding providers will be provided below.

Angel investors and venture capitalists are individuals or companies that invest into startups in return for an equity ownership interest (Ganti & Scott, 2020). They do not only bring money to the company but also advise, contacts and knowledge.

Crowdfunding is the action of raising funds through multiple funding providers by using crowdfunding platforms such as Kickstarter or Indiegogo. The individuals that give money to the startup get some type of reward for their money, which can be one of the products provided or equity of the company (Smith & James, 2021). However, to succeed in crowdfunding the startups needs a compelling campaign to reach as many investors as possible.

Lastly, loans provide companies with money, which is borrowed over a specific period of time. On the one hand this has the benefit that there is no individual involved in how to run the business. However, on the other side, a loan will solely provide the startup with money and no contacts or strategic advises.

2.2.1.1.4 Incubators and Accelerator Programs

Funding providers only provide the money but do not give any guidance on what to do with the money (Forrest, 2018). Therefore, Incubators and accelerator programs play an important role in the startup ecosystem as well. They provide them with training, mentorship, guidance, important partnership, and additional funding. According to Dieye (2018), "Recent studies on innovation ecosystems – for example in Nigeria, India and China — found that the existence of incubation and acceleration spaces that are led by experienced entrepreneurs is a key factor for the success of new entrepreneurs and a thriving ecosystem." Hence, one can say that incubators and accelerator programs provide a supportive environment for the ventures.

2.2.1.1.5 Government

An actor that may not be underestimated is the government, as it controls and operates the supporting regulations and policies for the environment which the ventures are working in. Therefore, one can say that the main task of the government, in terms of the ecosystem, is to select the way how it can support and nurture the startup ecosystem (Moore, 2020). This can be done on the one hand through policies that are favorable for startups and on the other hand by providing the infrastructure that startups need to

advance their products and networks. These favorable policies could be tax advantages, grants or rewards. Therefore, one can say that the governmental policies and regulations have a rather big impact on the startups within the ecosystem (Moore, 2020).

2.2.1.2 Sustainability in the startup ecosystem

An understanding of the startup ecosystem does not only benefit investors and startups but also the government, as the information can be used to grow the ecosystem and at the same time boost the economy. Henceforth, the government and the regulatory framework can benefit from this understanding by implementing policies and regulations that encourage an entrepreneurial culture.

The importance of sustainability and the SDGs in conjunction with the startup ecosystem, lies in the fact that sustainability is a fundamental principle which guides the society and organizations (Chillakuri, Mogili, & Vanka, 2020).

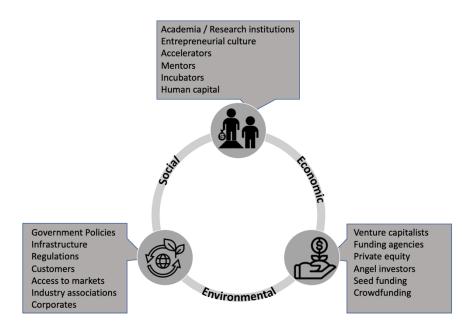


Figure 5: Conceptual framework of a sustainable entrepreneurial ecosystem (Chillakuri, Mogili, & Vanka, 2020)

Figure 5 revives and reflects on the stakeholders and actors of the startup ecosystem. One can see that the stakeholders were put into the dimensions of the sustainable development goals, being social, economic, and environmental. It is important to mention that these three dimensions should be balanced to achieve a sustainable outcome. Therefore, one can say that the framework provided by Chillakuri et al. (2020) offers a good overview

of how the startup ecosystem interacts with the SDG dimensions. This framework will be utilized later in the section about the support mechanisms.

2.2.1.3 Startup Ecosystem Austria

According to the Startup Blink (2020), Austria ranks number 28 among 202 countries in terms of the strength of the startup ecosystem. The most successful startup ecosystems within Austria are in Vienna, Graz, and Salzburg (Startup Blink, 2020). Vienna accounts for almost half of all Austrian startups' formations (Leitner, et. al, 2020) and ranks number 1 within Austria and 84 globally (Startup Blink, 2020).

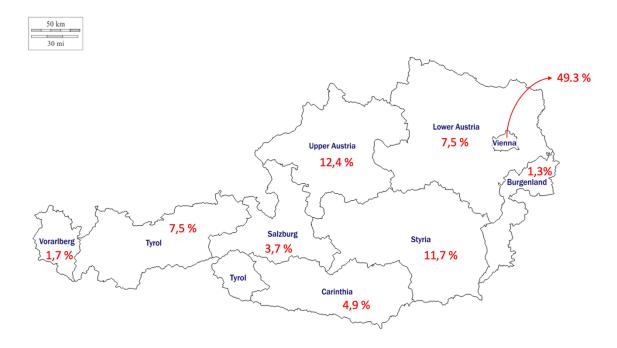


Figure 6: Number of Startups by Location since 2008 (d-maps, 2021)

Figure 6 shows the distribution of startups within Austria in each state. There are several factors which make Austria and especially Vienna an attractive startup ecosystem. One can say that Austria offers a lot of potential to startups, not only due to the high quality of life and the sustainable costs of living, but also because of its central location within Europe (Startup Blink, 2020). In addition to this, Austria and especially Vienna offers a high level of education in the area of technology. This statement is supported by (OECD, 2017a), who states that Austria is providing a "technology-rich environment". This is also the reason why the three most popular industries within the ecosystem are Software and Data, Fintech, and Social & Leisure (Startup Blink, 2020).

However, according to the Startup Blink (2020) Report on the Rankings in 2020, Austria must invest into the momentum of Vienna and at the same time support the other startup cities like Graz or Salzburg to provide a beneficial and attractive startup ecosystem. A statistic provided by the Austrian Startup Monitor 2019 offers an insight on the social and environmental goals from Austrian founders.

2.2.2 Entrepreneurship

Besides the ecosystem and phases of startups it is essential to address entrepreneurship in the context of startups. Schumpeter (1934) defined an entrepreneur as an innovative individual which introduces new products, services, methods, or organizational forms. On the same matter Kawamorita & Salamzadeh (2015) state that "startups are about turning ideas into businesses which is a critical point in entrepreneurship studies such as new venture creation, value creation, and opportunity recognition, evaluation and exploitation". This is proven by the fact that most entrepreneurship definitions are focused on startups, as they are in an early stage of their business (Kawamorita & Salamzadeh, 2015). Therefore, they address topics such as "idea, creativity, innovation, new product or service development, opportunity, and the like" (Kawamorita & Salamzadeh, 2015).

Hisrich (1990) defined an entrepreneur as: "someone who demonstrates initiative and creative thinking, is able to organize social and economic mechanisms to turn resources and situations to practical account and accepts risk and failure". Similarly, Schumpeter (1965) defined entrepreneurs "as individuals who exploit market opportunity through technical and/or organizational innovation" (Schumpeter, Economic Theory and Entrepreneurial History, 1965). Furthermore, Hebert & Link (1989) stated that entrepreneurs "pertains to the actions of a risk taker, a creative venturer into a new business or the one who revives an existing business" (p. 39). Hence, one can say that the main aim of entrepreneurship is to have an innovative business approach and to enhance economic development. Linking entrepreneurship to the SDGs and sustainability, the term of social entrepreneurship emerges.

2.2.2.1 Social Entrepreneurship

As already mentioned, the private sector is one of the key players in implementing the SGDs. Accordingly, economic analysists found out that small companies such as startups

"contribute substantially to the greater economic development and vitality of any society or country at large" (Gandhi & Raina, 2018, p.1). Within this private sector, there is one type of company which especially targets the SDGs. This type of company is called SE, short for social enterprise. To further elaborate on the topic, it will be important to first define the term social entrepreneurship.

Social entrepreneurship is a social-oriented concept of entrepreneurship (Hayes & James, 2021). This means that companies must revere the social aspects on an equal footing with environmental and economic aspects. According to Thompson (2002 p. 412-415) social enterprises are set up for a social purpose on the on one hand and operating as businesses and in the voluntary or non-profit sector on the other hand. The Cambridge Dictionary (2021) defines social enterprises as "the activity of running a company that aims on making money to serve a useful social purpose". Having a social purpose, means that the ventures create societal benefits which helps them to attract talent and customers (Strandberg Consulting, 2017). Mair & Schoen (2007, p. 55 & 66) define social enterprises as a company that "addresses social needs and or catalyses social transformation [...] Its primary objective is the creation of social value, while economic value creation is a necessary but not sufficient condition".

The main similarities that can be found upon these definitions are that a social enterprise aims to create social value while making money to run the business. This is supported by Doherty et al. (2014, p. 4) stating that social enterprises differ from commercial organizations by "prioritizing social change above private wealth creation" having objectives that target topics such as "reducing poverty, inequality, homelessness, carbon emissions and unemployment".

Another research by Vujasinović, Lipenkova, & Orlando (2019, p. 20), found that "... all the SEs implicitly cover the SDGs in their work and are frequently contributing to the achievement of more than one goal". The research confirmed the private sector in form of social enterprises has a considerable impact on the achievement of the sustainable development goals (Vujasinović, Lipenkova, & Orlando, 2019). This can be attributed to the fact that social enterprises are not aimed at generating the highest returns, but rather at addressing the shortcomings in the human environment (Murphy & Coombes, 2009).

2.2.3 Instruments supporting companies and startups in implementing the SDGs

With the help of the SDG guidelines and models, companies and startups can establish

connections between their visions and missions and the indicators of the sustainable

development goals. This enables them to present the connection between their business

activities and the global sustainability challenges. There are several guidelines and

models, from various initiatives which help companies and startups to align their business

with the sustainable development goals. These will be named and explained in detail in

the sections below.

2.2.3.1 Why, When and How Guide for Business

The Why, When and How Guide for Business, compiled by the Silicon Valley

Community Foundation (2017) provides a blueprint for business and particularly startups

on how to implement the Sustainable Development Goals step by step into the business.

The guide proposes a five-step plan (Mazzoni, 2017):

"1. Define the priorities

2. Gather feedback

3. Turn the priorities into goals

4. Reporting

5. Employee engagement and CSR programs"

Source: Mazzoni, 2017, p. 2

The first step, being "defining the priorities" is crucial for start-ups, as the SDGs offer the

opportunity to deal intensively with the sustainability and social impact of their own

business model, to assess themselves and to professionally communicate their own

impact on this basis (Mazzoni, 2017, p. 4-9). Additionally, the implementation of the

sustainable development goals might offer an advantage as the company can increase its

appeal to various stakeholders, especially thinking about investors (Mazzoni, 2017, p. 4-

9). Therefore, it is advisable for entrepreneurs to analyze their startups or companies

according to how they could potentially implement the SDGs(Mazzoni, 2017, p. 4-9).

Investors can use the SDGs to identify suitable sustainable start-ups as potential

investment objects and competently assess their sustainability and impact (Mazzoni,

32

2017, p. 4-9). In addition, the SDGs are intended to promote sustainability-oriented business model development in a dialogue between investors and start-ups.

The second step is gathering feedback. Mazzoni (2017) states that the stakeholders differ from company to company and that it is important to distinguish those who will engage the most with the involved sustainable development goals and the company itself (p. 10-11). Therefore, it is important to connect the core values of the company to the SDGs that it targets. Ben Powell (as cited in Mazzoni, 2017, p.10), the founder and CEO of a nonprofit organization states "As a social entrepreneur, just ask yourself: 'What is my purpose?' You knew what your purpose as a company was before the agenda, and your purpose is probably expressed in one of the SDGs".

Turning the priorities into goals is the third step of the Why, When and How Guide for Business. Implementing objectives in accordance with the SDGs can help companies and startups to measure their progress (Mazzoni, 2017, p. 13). However, Mazzoni (2017, p. 13) advises against focusing on too many Sustainable Development Goals but rather focusing on two to three in depth.

The fourth step of reporting will enable transparency for the stakeholders (Mazzoni, 2017, p. 14-17). In this way the stakeholders have an opportunity to see what the company or startup does and how they can potentially assist or help them. Startups should rather focus their resources on creating an impact than showing what has been achieved. Therefore, instead of writing a formal report, startups can use social media to communicate their progress (Mazzoni, 2017, p. 14-17).

The last step of the Why, When and How Guide for Business is the employee engagement and CSR programs. Mazzoni (2017, p. 18-20) states that the SDGs bring together employees from all departments by providing a framework with a common language. This can also be attributed to the social entrepreneur mentioned above. As explained before, the social entrepreneur links social, ecological and economic aspects to their company activity, which is exactly what Ben Powell addresses here.

2.2.3.2 SDG Industry Matrix and SDG Compass

The SDGs serve as a common guide for companies and startups to align their goals and activities with sustainable development. However, startups and companies may struggle

to implement the SDGs into their business or to find the most relevant goals in terms of their business model.

Startups and companies can use the SDG Compass to identify their main areas of influence and options for action, to prioritize management approaches and to develop and present suitable solutions. The main aim of the SDG compass is to support companies in adapting their strategies to SDGs and to measure and manage their SDG contribution (Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015). The SDG Compass was developed by the UN Global Compact and the World Business Council for Sustainable Development and is divided into five consecutive steps (Global Compact, 2017).

These five steps are as follows (Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015):

- "1. Understanding the SDGs
 - 2. Define Priorities
 - 3. Setting Goals
 - 4. Integrating
 - 5. Reporting and communication"

Source: Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015

The compass can be used as a source of inspiration, so that ventures can adapt to the SDGs in a creative and innovative way. The first step is crucial, as the companies must understand the SDGs to recognize the opportunities that might arise from implementing them (Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015). The ventures that contribute to the implementation of the SDGs can open new market areas through innovations. Once the companies have familiarized themselves with the SDGs in step one, steps two and three involve identifying the companies' respective priorities for action and assigning targets to them (Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015). After that the companies must integrate the SDGs into the corporate strategy, with step four (Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development, 2015).

The last step is the reporting and communication of the company's' engagement with

relevant sustainable development goals (Global Reporting Initiative, United Nations

Global Compact, World Business Council for Sustainable Development, 2015).

The SDG industry Compass thus helps to establish connections between the respective

core business and the associated global sustainability issues (Temmes, Schönherr,

Wiman, Farsang, & Reisch, 2017).

Another helpful guideline for companies and startups is the SDG Industry Matrix. The

model was developed in a partnership between KPMG International and the UN Global

Compact (KPMG, 2020). The aim of the guideline is to provide companies and startups

with industry specific examples from six different industries for actions for each

Sustainable Development Goal (KPMG, 2020). These six industries are:

"1. Financial Services

2. Food, Beverages, and Consumer Goods.

3. Healthcare & Life Sciences

4. Industrial Manufacturing

5. Transportation

6. Energy, Natural Resources & Chemicals"

Source: KPMG, 2020

Having examples for different industries enables startups to see how other ventures within

the same industry address social and environmental challenges. This may inspire other

ventures to do the same.

The Matrix outlines opportunities for developing shared value depending on the sector or

industry the company or startup operates in and describes business initiatives and

stakeholder contribution that address different subsectors of the SDGs (United Nations

Global Compact & KPMG, 2016). There are suggestions for concrete approaches with

each SDG, as well as good practice examples which can be found in the subsequent listing

(United Nations Global Compact & KPMG, 2016). This is intended to reveal to

companies in the affected industries the innovation opportunities and synergies that can

arise from addressing the SDGs.

35

In combination with the SDG Compass, the Industry Matrix offers beginners practical ways to engage with the sustainable development goals. Clearly, the suggestions cannot address specific company circumstances, but they do offer tangible thrusts that should reduce uncertainty around the topic of SDGs. In table 1 one can see both guidelines in a comparison.

	SDG Compass	SDG Industry Matrix
Main Characteristics	 Qualitative Holistic Focus on SDG progress monitoring Strong political impetus Internal controlling and external reporting 	 Qualitative Industry Specific Focus on shared value opportunities Storytelling and information hub Focus on external reporting
Similarities and Differences	 Strategic approach to SDG management Focus on business sector contribution to the SDG Creates transparency and visibility Reduces complexity Analytical starting point: the firm 	 Pooling of industry-specific information Focus on external reporting Creates transparency and visibility Reduces complexity Analytical starting point: societal needs

Table 1: Comparison of SDG Compass & SDG Industry Matrix (Adapted from Jandeisek, Kannenberg, Moehrer, & Appiah, 2016)

As table 1 shows, the aim of the guidelines is to maximize the contribution form companies and startups to the sustainable development goals. The SDGs can be used by companies as a tool to shape, manage and report on business activities. There are two possibilities: On the one hand, you can use the SDGs to embed your sustainability activities in a global context of sustainable development. On the other hand, companies can also align themselves with the SDGs and firmly anchor them in the corporate core. Corporate performance is then directly aimed at achieving the global goals. Furthermore,

the SDGs can also be used as a tool for risk analysis. It can be seen that the goals are extremely versatile in their implementation in the corporate context.

To sum up this chapter, one can say that it is important for ventures to focus on the SDGs that are important to the venture itself and where they can achieve the largest impact. Companies and startups do not necessarily have to implement new measures to make an impact but can use the SDGs as an orientation to enhance their own measures.

2.3 Support Mechanisms assisting Startups in achieving the SDGs

In the sense of SDGs, the support mechanisms are institutions and incentives that support entrepreneurs in facilitating the integration and coherence for SDG implementation. Therefore, one can say that it is important to have an institutional framework which supports companies and startups in successfully implementing the SDGs. A lack of institutional guidance and clarity can be of disadvantage for the implementation of the SDGs. It is thus essential to establish an understanding and hence a definition of support mechanisms. As mentioned in chapter Nr. 2.2.1 about the startup ecosystem, there are several actors who affect the startups as they "must rely on actors from the ecosystem to access resources they lack in order to im-prove their performance." (Franco-Leal, Camelo-Ordaz, Fernandez-Alles, & Sousa-Ginel, 2019, p.1). Therefore, the following four support mechanisms have been identified that will be explored in the following chapters: investment fund, business programs, educational institutions, and the regulatory framework. To provide a complete picture, first the support mechanisms will be explained and elaborated on, followed by in-depth examples from Austria.

The regulatory framework, provided by the government, stipulates "infrastructure, rules (legislations, regulations, taxes), policies and research funding (Majava, Leviäkangas, Kinnunen, & Kess, 2016, p.4). The Austrian Federal Ministry of Economics for example helps in identifying material savings potential, which can be a valuable help for small companies.

The research funding can then be used by educational institutions which are crucial as they use this to "create new technologies and ideas to be commercialized, train new talent" and "license technologies" Majava, Leviäkangas, Kinnunen, & Kess, 2016, p.6). In addition to this, educational institutions have a crucial role as they are helping with the

creation and diffusions of knowledge. The outcome of these actions is the creation innovation.

Accelerators and incubators provide space, resources, mentoring and seed investments for the startups within the ecosystem (Majava, Leviäkangas, Kinnunen, & Kess, 2016). The start-up programs provided by the accelerators and incubators can support innovative companies from the initial idea to the expansion phase. Taking advantage of the wide range of consulting services, assistance and incentives can provide startups with additional resources and benefits. Innovative networks make it easier for companies to access technology-specific funding, which is especially important for companies in industries such as financial technology. Funding providers such as angel investors and venture capitalists provide investments and advice for startups.

2.3.1 Definition of Support Mechanisms

To understand what a support mechanism is, one must understand what meaning the terms support and mechanism have individually in economics. Durlauf & Blume (2010, p. 207-222) define a mechanism as "a specification of how economic decisions are determined as a function of the information that is known by the individuals in the economy". Therefore, one can say that any kind of market institution or economic organization can principally be viewed as a mechanism (Durlauf & Blume, 2010). On the other hand, support in terms of economics can be defined as any form of incentive mechanism or financial assistance for an individual or venture provided by different actors. Combining both definitions, one can define a support mechanism as an economic decision provided by a market institution or economic organization that either stimulates a decision or provides financial assistance for an individual or a venture.

According to the Collins Dictionary (2021) a support mechanism can be defined as a "formal system or method of providing support or assistance". Tomos, et al. (2019, p.62) additionally define support mechanisms as "Institutions such as foundations, nonprofit organizations, governmental departments, etc. that support entrepreneurial activity in a country". Following the general understanding of the support mechanism the four most evident ones will be identified in the following chapters.

2.3.2 Investment

Generally, the main role of an investor is to select ventures which is an entity that provides money to a company to make a profit with it. One can differentiate between two types of investors, being private investors and institutional investors. Private investors are typically venture capital and individuals such as family and friends whereas institutional investors are characteristically hedge and mutual funds, and banks (Pirraglia, 2017).

A key question one might ask themselves is: Are Investors more likely to invest into startups that focus on the UN Sustainable Development Goals? According to the Cabrera (2020) "Today, investors care about more than just making good returns. Increasingly, they place a great deal of importance on sustainability, with governments and private sector firms alike helping them make ethical choices."

As identified by the 2020 Annual Impact Investor Survey from the Global Impact Investing Network (2020), the size of the market increased by almost hundred percent from 8 billion dollar to 715 billion dollar within 8 years. This statement is supported by Bilboe (2020), mentioning that the sustainable development goals are aimed towards "companies, investors, governments and institutions across Europe to create impactful returns on investments". Impactful returns on investment refers to impact investing, which should both bring a return on investment and make a positive social and environmental impact.

Therefore, one might say that investors are increasingly paying attention to the so-called ESG factors. ESG stands for Environmental, social and governance. These factors are predominantly viewed by investors to have a positive impact on the investment. However, since the SDGs were introduced, the term SDG Investing increasingly gained importance and will thus be explored further within this chapter followed by regulations and strategies already in place to foster investments.

2.3.2.1 SDG Investing

SDG Investing, also known as SDGI, is a type of impact investing (Walkate & Krosinsky, 2018). To understand this relationship, a definition of impact investing and ESG will be required. Impact investing was defined by Clarkin & Cangioni (2015, p.137), as investments that are "made to create tangible social impact, but also have the potential

for financial return on the investment". ESG refers to the "environmental, social, and governance practices of an investment that may have a material impact on the performance of that investment" (Zhou, 2019) and is therefore not just an investment strategy but rather a framework for evaluating companies (PitchBook, 2020). SDG Investing on the other hand is about creating a positive impact on social or environmental matters and simultaneously earning a lucrative return (Walkate & Krosinsky, 2018).

Hence, one can say that the sustainable development goals provide a framework for investors to determine whether an investment creates a positive social or environmental impact. Walkate & Krosinsky (2018) argue furthermore, that the SDGs provide a "tangible link to solving the problems as defined by the United Nations", supporting the statement that they provide a framework or rather a guide for startups. Correspondingly, PWC argues that that the SDGs serve as a holistic framework for investment decision-making which means that they can be used as a guide for determining risk and allocate the capital in a sustainable manner (Bulzomi, Bosch, & Govers, 2020). In simpler terms, the SDGs enable investors to measure the impact of their investments.

Bruin & Biermans (2017) state that there are two important support mechanisms that SDG Investing provides. On the one hand more money will be invested into ventures that implement the SDGs and on the other hand these investments have a larger positive social and environmental impacts (Bruin & Biermans, 2017).

2.3.2.2 Sustainable Finance Disclosure Regulation (SFDR)

One regulation that has already been implemented to encourage and promote sustainable investments is the Sustainable Finance Disclosure Regulation (SFDR), which became effective in March 2021 (OECD, 2021). The aim of the SFDR is "to shift market appetite towards sustainability-minded companies in their capacities as investees, borrowers, and issuers" (OECD, 2021). Another objective of the SFDR is to avoid greenwashing "of financial products and financial advice" (Doyle, 2021). This means that there is more transparency for investing into sustainable products, which is achieved by classifying investments according to their sustainability. At the same time, the SFDR will enable investors to identify and invest into sustainable businesses. Therefore, this will provide a competitive advantage for those companies who are prepared and aligned with the

SFDR's requirements (OECD, 2021). These requirements comprise that companies must define their sustainable targets, assess their sustainable risk and state what actions were taken or are planned in order to advance the SDGs (Jury, Kerek, & Dunlap, 2021).

2.3.2.3 EU strategy on sustainable finance

Corresponding to the SFDR above, a strategy that has been implemented to advance sustainable investing further is the Mid 2018 EU commission action plan on sustainable finance, with the aim of reducing the environmental impact while supporting economic growth (Principles for Responsible Investment, 2018). Sustainable finance can be defined as the process of considering ESG factors which are then used in order to make decisions on investments (European Commission, 2021). The main reason for the introduction of the EU strategy on sustainable finance, was that the level of investments were not sufficient and additional investments are needed to meet the 2030 Agenda (Principles for Responsible Investment, 2018).

The EU strategy on sustainable finance introduced measures to encourage the foundation of startup, by simplifying administrative procedures and introducing a special tax benefit for both private and institutional investors that want to invest into innovative businesses (International Environment House, 2016).

2.3.3 Support programs

Following investments, support programs have been identified as another important support mechanism. Since the launch of the SDGs in 2015, there have been several support programs, such as accelerator programs or specialized organizations targeting ventures with a focus on SDGs. The main roles of these support programs are to provide business expertise, mentorship, and a network for the startups to be successful in growing a sustainable business model. Furthermore, these programs showcase best business practices and establish a community around the SDGs. In the section below, several support initiatives and organizations within Austria are introduced and elaborated on such as the Impact Hub, the SDG Innovation Lab, the respACT and the Climate-KIC Austria.

2.3.3.1 Impact Hub

One accelerator program in Vienna is hosted by the Impact Hub, Austria. The aim of the accelerator programs is to scale the social impact they have. The Impact Hub provides

experts, mentoring, several funding opportunities, and a community of like-minded entrepreneurs (Impact Hub Vienna, 2019). The requirement for entering an accelerator program is to business solution that focuses on social or climate impact (Pernat, 2021). Therefore, one can say that the Impact Hub promotes startups that address issues that are often underserved by markets and institutions.

There are several different accelerator programs, depending on the aim of the venture. The Greenstart Accelerator Program for example "supports innovative business ideas and start-ups in the field of renewable energy, energy efficiency, mobility, and agriculture to further develop their sustainable business models." (Impact Hub Vienna, 2019).

2.3.3.2 SDG Innovation Lab

The SDG Innovation Lab helps SMEs to develop solutions for the challenges which are targeted by Sustainable Development Goals (SDG Innovation Lab, 2021). Additionally, the program supports ventures in designing products that are technologically appropriate and environmentally friendly, culturally acceptable, and economically sustainable (SDG Innovation Lab, 2021). Hence, the focus of the accelerator program is on the SDGs.

The SDG Innovation Lab (2021) mentions that small and medium sized businesses are crucial for economic activity and for achieving the SDGs which is the reason why this program focuses on such ventures.

2.3.3.3 Climate-KIC Austria

Climate-KIC stands for Climate Knowledge and Innovation Community and is the largest European innovation initiative for climate-friendly technologies (Daniel, 2017). The initiative was launched by the EIT, short for European Institute of Innovation & Technology (Daniel, 2017). The accelerator operates in Zürich, Munich, Frankfurt, Berlin, and Vienna and provides workshops and coaching sessions, as well as networking events for the participating start-ups (Daniel, 2017).

According to EIT CLIMATE-KIC (2021) the initiative is "... bringing together those with vision, with ideas, with low-carbon products and services, and with finance, we generate the critical mass needed to tackle climate change".

The program consists of four key subjects which are focused on the sustainable development goals. These four subjects are:

- 1. "Urban Transitions" (European Institute of Innovation & Technology, 2021)
- "Sustainable Production Systems" (European Institute of Innovation & Technology, 2021)
- 3. "Decision Metrics and Finance" (European Institute of Innovation & Technology, 2021)
- 4. "Sustainable Land Use" (European Institute of Innovation & Technology, 2021)

2.3.4 Education

Another support mechanism that must not be disregarded is the one of education. The implementation of the SDGs is not solely directed at governments which means that all stakeholders are called upon to participate in the achievement of them. The 2030 Agenda can only succeed in cooperation at all levels, which means throughout the whole society. Hence, schools, universities and other educational facilities represent the society on a small scale.

As identified by Vekic and Borocki (2017), the educational institutions are particularly influential on startups in the initial development phase, as it provides the startups with the relevant information and best practices. The different institutions would be "universities, faculties [and] institutes", entailing general education and higher education (universities of applied sciences, private universities) in Austria specifically (Vekic & Borocki, 2017, p.488). Dill and van Vught (2010) furthermore highlight that higher education is a critical factor in the development of innovation and human capital, as it enhances the skills of its students in specific fields, such as entrepreneurship and sustainability. Contrary to the previously mentioned aspects, educational institutions directly influence the creations of startups, which is why they play such a critical role within the support mechanisms.

According to the Bundesministerium für Bildung, Wissenschaft und Forschung (2021, own translation), "people of all ages, genders and cultures should be supported in developing alternative visions of a sustainable future and in working imaginatively with others to realize these visions". This testimonial is also supported by Bhowmik, Selim, & Huq (2018, p.2) stating that "Universities hold a position of neutral and trusted stakeholders within Society. They have a key role in educating the public and other

sectors on the SDGs". This corresponds with the statement of David and Frans above, which further emphasizes that educational institutions are a prerequisite and an integral part of sustainable development.

Consequently, this requires that competences for sustainable development are practiced and developed, and that students and educational facilities take responsibility together. In the learning process, knowledge and values are to be acquired so that young people and students can play an active role in dealing with local and global societal, economic challenges. As a result, education raises awareness of the complexity of global challenges. Among other things, it also promotes the ability for critical reflection and systemic and future-oriented thinking and ultimately action (Bundesministerium für Bildung, Wissenschaft und Forschung, 2021).

A best practice example within Austria is the UniNEtZ project, short for Universities and Sustainable Development Goals (Allianz Nachhaltige Universitäten in Österreich, 2021). The aim of the project is to create an inter-university cooperation between 18 universities and to present options on how to implement the UN Sustainable Development Goals (Allianz Nachhaltige Universitäten in Österreich, 2021). This enables students to learn more about the 2030 Sustainable Agenda and integrate the SDGs into research and teaching.

Whilst having education and universities included in the support mechanisms, they do not only contribute to the Sustainable Development Goal 4, but also to all other SDGs. According to The Commonwealth Education Hub (2016), Education:

- Reduces poverty and increases income (The Commonwealth Education Hub, 2016)
- Prevents inequality and injustice (The Commonwealth Education Hub, 2016)
- Leads to better health (The Commonwealth Education Hub, 2016)
- Drives sustainable growth (The Commonwealth Education Hub, 2016)
- Helps protect the planet (The Commonwealth Education Hub, 2016)
- Requires partnership (The Commonwealth Education Hub, 2016)

This again shows that all sustainable development goals are interlinked. Furthermore, it shows that educational institutions have an impact on ventures as they provide knowledge and human resources.

2.3.5 Regulatory Framework

The regulatory framework is the last and perhaps one of the most important actors, if not the most important actor, when it comes to supporting startups and ventures in promoting and achieving the SDGs. The government can promote the SDGs by implementing policies and placing a regulatory framework that supports startups. A study has shown that approximately half of the "business participants surveyed believe government has the prime responsibility" in implementing and achieving the SDGs and that only 10% gave business prime responsibility (PwC, 2015, p.9). Therefore, one can say that startups and companies depend on the government in the implementation of the SDGs and hence need guiding help.

To understand what a regulatory framework is, one must first have to define governance, after which a more precise understanding of a regulatory framework can be formed. In addition, this chapter will also address policy coherence, government programs already in place, initiatives, standards as well as necessary improvements in the subject area.

2.3.5.1 Regulatory Framework

Firstly, it will be crucial to establish an understanding of what the regulatory framework is. According to Kjaer & Vetterlein (2018), a regulatory framework can be defined as "new form of governance that utilizes various approaches of collaboration across a variety of policy actors" instead of the traditional command-and-control type of steering (p. 497). The regulatory framework comprises all "regulations, decisions, directives, regulatory policies, guidelines, recommendations and procedures" which are formed by the authorities (Law Insider, 2021). Therefore, one can say that the main aim of this framework is the design and the implementation of regulations.

It must also be mentioned that the regulatory framework is of high importance to founders and startups as these frameworks will represent the burdens that startups will be confronted with when launching their ventures (Writer, 2020). An example for this is requirements that a startup must fulfil in order to "properly registered and to operate legally" (Writer, 2020).

According to Freiberg (2006), there are five regulatory tools that the government can apply. These regulatory tools are comprising governmental activities as economic actor,

party, facilitator, information provider and legislator (Freiberg, 2006). Especially interesting is, that according to this model the government can act as a so-called "facilitator". In this sense, the government can ensure that a particular behavior occurs and that certain actions take place through the use of the law and regulations.

In the role of intermediaries, it is on the one hand possible for governments to "use markets as regulatory mechanisms", or to "license, register, certify, or accredit other parties" and engage in the conduct using that mechanism, or on the other hand, they can go to court and use the rule of law to ensure that certain behaviors are enforced (Hodge, Regulatory Frameworks for Urban Services, 2007). In addition, a regulatory system can be, for example, an "environmental design and physical control" (Hodge, Regulatory Frameworks for Urban Services, 2007).

2.3.5.2 Policy coherence

Another important aspect in terms of the regulatory framework is the concept of policy coherence. The National Action Plans on Business and Human Rights (2021) defines policy coherence as the process of mutually reinforcing policy actions". It is important to note that policy coherence integrates governance with the ESG (economic, social, environmental) factors.

According to Tondel, Ronceray, Mackie and Ashraf (2019):

"The need for policy coherence permeates the entire concept of the Sustainable Development Goals (SDGs), which are based on the idea that the multiple facets of development do not occur in isolation but are impacted on by many actors and policies. Successful implementation therefore relies heavily on governments taking an integrated approach to policymaking, with policy coherence at its core."

Therefore, one can say that there is a need for the government and the stakeholders to work together to manage and guide the coherent implementation of the sustainable development goals. The Framework for PCSD, short for Policy Coherence for sustainable development, has three main objectives (Morales, 2018):

- "1. Foster synergies and minimise trade-offs across sectors
 - 2. Reconcile domestic policy objectives with internationally agreed objectives
- 3. Address the transboundary and long-term effects of policies"

Source: Morales, 2018, p. 1

Hence, the policy coherence should enable the government and policy makers to comprehend how the actions towards the SDGs impact each other and the future

sustainable development.

According to the OECD (2017), there are eight building blocks of policy coherence for

mainstreaming the implementation of SDGs:

1. "Political commitment and leadership - to guide 'whole-of-government' action

and translate commitment on SDG into concrete and coherent measures at the

local, national, and international levels.

2. Integrated approaches to implementation - to consider systematically inter-

linkages between economic, social, and environmental policy areas as well as

ensure consistency with international engagement before making decisions.

3. Inter-generational timeframe - to make informed choices about sustainable

development considering the long-term impact of policy decisions on the well-

being of future generations.

4. Analyses and assessments of potential policy effects - to provide evidence on the

potential negative or positive impacts on the well-being of people at the domestic

level and in other countries to inform decisionmaking.

5. Policy and institutional co-ordination - to resolve conflicts of interest or

inconsistencies between priorities and policies.

6. Local and regional involvement - to deliver the economic, social, and

environmental transformation needed for achieving the SDGs and to ensure that

no one is left behind.

7. Stakeholder participation - to make sure that SDGs are owned by people, diverse

actions are aligned, and resources and knowledge for sustainable development are

mobilized.

8. Monitoring and reporting - to better understand where there has been progress or

lack of it and why, and where further action is needed."

Source: (OECD, 2017, p. 20-21).

47

These eight building blocks, also known as institutional mechanisms, are essential for the coherent SDG implementation, as they are applicable to all countries irrespective of their administrative and political traditions (Morales, 2018, p. 4).

According to the United Nations Development Programme (2017) the lack of governmental actions, especially at a local level, has also been the reason why countries have struggled to implement the Millennium Development Goals. Therefore, the SDGs require a collaboration of all stakeholders and an incentive system from the government that will expedite action across several sectors. A new or adapted institutional framework would support all stakeholders to effectively implement the sustainable development goals.

According to the classic definition of J. Tinbergen: "The economic policy is the deliberate manipulation of a number of instruments to the success of certain goals." (Tinbergen, 1967, p. 353).

Austria announced in 2016, that the government will follow a so-called "mainstreaming approach" in which all federal ministries to review which of the 17 SDGs have national and/or international existing strategies, programs, and policies (Bundesministerium für Digitalisierung und Wirtschaftsstandort, 2021)

According to SDG-Watch Austria (2020), in November 2020, the Constitutional Committee of Austria unanimously decided to promote closer cooperation between parliament and government to implement the 2030 Agenda with its 17 SDGs. It was criticized that there is a considerable need for improvement, especially regarding clear political prioritization and central steering, as well as with regard to a whole-of-government implementation strategy (SDG-Watch Austria, 2020).

Furthermore, the Report on the Implementation of the Sustainable Development Goals from the Austrian Federal Chancellery (2020) mentioned that further engagement of all stakeholders is essential to successfully implement the 2030 Agenda. The Austrian Federal Chancellery (2020) states that "The national goal of sustainable development is set down in the Federal Constitutional Act on sustainability, animal protection, comprehensive environmental protection, on water and food security as well as research. Actual implementation comes about through laws, ordinances and statutes.". This proves the importance of the regulatory framework for the implementation of the SDGs.

According to Report on the Implementation of the Sustainable Development Goals from the Austrian Federal Chancellery (2020):

"Sustainable development is declared a national goal in the Austrian Federal Constitutional Law. All Austrian Federal Ministries are advised to implement the principles of the 2030 Agenda and the Sustainable Development Goals (SDGs) within their areas of competence in a strategically coordinated manner."

Source: Austrian Federal Chancellery, 2020, p. 16

Austria has the aim of implementing the SDGs throughout all political areas to have a sweeping impact, which can also be seen in the implementation Government Programme 2020 to 2024 which will be explored in the next section.

2.3.5.3 Austria's Government Programme from 2020 to 2024

Besides the policy coherence, Austria hosted a Government Programme from 2020 to 2024 in which it conveys and coordinates the implementation of the SDGs by including all stakeholders, such as businesses, the scientific community, and the society itself (Austrian Federal Chancellery, 2020).

The main aims of the Government Program 2020-2024 are (Austrian Federal Chancellery, 2020):

- "1. A noticeable relief for the working population
 - 2. Combating climate change and maintaining the Paris climate goals
 - 3. A sustainable and competitive business location
 - 4. Social security and fight against poverty
 - 5. A consistent course regarding migration and integration
 - 6. The best education for all
 - 7. Sustainable finances, necessary investments, and a balanced budget
 - 8. A greater transparency in the public sector"

Source: Austrian Federal Chancellery, 2020, p. 3

Generally, one of the main aims of the Government Program's is introducing tax reform measures. Parts of the plan is to reduce the corporate tax from 25 percent to 21 percent (Austrian Federal Chancellery, 2020). According to the Austrian Federal Chancellery

(2020) the tax reduction measures are comprehensive and suitable for strengthening Austria as a business location and taking account of current economic developments. The Government Program considers several SDGs by implementing measures and new ideas to tackle the goals specifically. An example is the introduction of various tax measures to address climate change issues which would benefit SDG 13, climate action (Orbitax, n.D.). Among other things, compulsory education is being tightened and work is being done on the expansion of more places at universities of applied sciences. These steps are targeting the sustainable development goal 4, quality education (Austrian Federal Chancellery, 2020).

In addition to these measures, there are several regulations and projects that aim at helping startups and SMEs to realize and implement the sustainable development goals. An example for this would be to "create a new type of stock corporation for innovative startups and founders at an early stage" (Austrian Federal Chancellery, 2020).

Additionally, the Government Program 2020-2024 offers a solution to increase legal certainty for SMEs. A major accomplishment would be to increase the incentives for private risk capital by "permitting loss adjustments over several years" or offering long-term investments from "institutional investors such as pension funds, insurance funds and insurance companies" (Austrian Federal Chancellery, 2020). Additionally, actions such as "reducing the minimum share capital of limited companies to 10,000 euros" would benefit startups and SMEs as they can allocate their money towards the company rather than putting it in the minimum share capital (Austrian Federal Chancellery, 2020).

2.3.5.4 Other initiatives

Between 2017 and 2019, the Austrian Federal Ministry for Digital and Economic affairs conducted the so-called "SDG Business Forum", an initiative that was intended to guide companies to SDG Markets in either developing or newly industrialized countries (Austrian Federal Chancellery, 2020). The predominant focus of the forum was on several SDGs, such as climate action, sustainable growth, and decent work, by providing best practice examples (Austrian Federal Chancellery, 2020). The SDG Business Forum was continued in 2020 with the aim of targeting digital innovation and new business models in coordination with the SDGs (Austrian Federal Chancellery, 2020).

Another governmental support mechanism towards the SDGs was the "Business & Development Forum", hosted by the Austrian Federal Economic Chamber in September 2019. The aim of the forum was to showcase that companies can combine sustainable development activities with profitable business models (Austrian Federal Chancellery, 2020). Here, the focus was particularly on SDGs that promote sustainable growth and sustainable infrastructure.

Furthermore, the Austrian Federal Economic Chamber, plays a vital role in implementing the SDGs, as it acts in the interest of Austrian ventures in terms of social, economic, occupational, and cultural interests (Austrian Federal Chancellery, 2020). The chamber represents more than 540 thousand Austrian companies, and its main undertaking is to educate and consult companies throughout a continuous process and works on policies in order to support the economy (Wirtschaftskammer Österreich, 2021).

In 2016, the Austrian Government formed a startup program, with the aim of making the country more attractive to found a startup (Butcher, 2020). According to Ohr (2016), the program involved a "monetary volume of about €185 million". The program comprises new funding sources, startup visas, reduced costs and many more.

2.3.5.5 Standards

Corresponding to the government programs and various initiatives mentioned above, standards can help to ensure work-related health and safety, physical conditions in the workplace and the safe design of plants and equipment (Lloyd's Register, 2019). One of the most known standards and norms is the ISO. ISO stands for "International Organization for Standardization" and refers to standards and norms which are internationally acknowledged (Madu, 1998). The compliance of the standards areas certified by an auditor. This certificate is valid for three years, after which a recertification audit must take place (Madu, 1998).

It should be noted that these standards also require financial resources. These include costs for implementing the systems and for the audit. However, companies are able save money in the long run because they benefit from smooth workflows and high-quality standards. Despite that, an important fact is that standards are not mandatory in principle. This means that they can be applied, but do not have to be.

The section below, will elaborate on two ISO standards which can be of benefit to ventures, concerning the sustainable development goals: ISO 14001 and ISO 45001.

2.3.5.5.1 Environmental management ISO 14001

According to Lloyd's Register (2021), ISO 14001 is the most widely used standard for environmental management and internationally recognized. The standard includes guidelines aimed at continuously improving environmental performance and provides companies with a framework for the design and organization of environmentally relevant tasks (Lloyd's Register, 2021).

The ISO 14001 standard can be linked to at least eight sustainable development goals. These goals are:

- "6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable, and modern energy for all
- 8) Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- 11) Ensure sustainable consumption and production patterns
- 12) Take urgent action to combat climate change and its impacts
- 13) Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
- 14) Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"

Source: Lloyd's Register, 2021 & Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 15-35

The benefit of the standard is that it can generate a competitive advantage for the companies that implement it and improve the efficiency of resource allocation (Lloyd's Register, 2021).

The increase in global trade brings new challenges in occupational health and safety as fatalities and injuries can occur (Lloyd's Register, 2021). The ISO 45001 was developed to set out the essential elements of a workplace health and safety management system to protect employees and create safe and healthy workplaces (Lloyd's Register, 2021).

With the help of ISO 45001, risks can be limited, and business performance improved (Lloyd's Register, 2020). This is achieved through a safe working environment and a healthier workforce.

Therefore, one can say that the standard ISO 45001 is linked to two of the sustainable development goals three and eight:

- "3) Ensure healthy lives and promote well-being for all at all ages
- 8) Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all "

Source: Source: Lloyd's Register, 2021 & Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016, p. 15-35

This shows that the SDGs are interconnected with several different regulations that aim for the same objective.

2.3.5.6 EU Eco-Management and Audit Scheme EMAS

EMAS is a European environmental management system that helps companies to save resources intelligently (EMAS, 2021). EMAS is also suitable for startups, as the EMAS regulation forms a basis for the company's environmental protection measures and the methods can be individually compiled for the respective company, depending on the industry and previous experience (EMAS, 2021). EMAS-audited organisations make an effective contribution to environmental protection, save costs and demonstrate social responsibility and ensure that all environmental aspects from energy consumption to waste and emissions are implemented in a legally compliant and transparent manner (EMAS Geprüftes Umweltmanagement, 2020). According to the European Commission, the EMAS can furthermore help organisations to achieve the SDGS. This is due to their specific link to their effort to "environmental and sustainable matters" which is the case for Goal 6, 7, 11, 12, 13, 14 and 15 (European Commission, 2021).

In this section, it has been explained that there are several government indicatives and programs that aim towards the implementation of the SDGs. The chapter that follows moves on to consider the suggestions for improvement that are available in the literature.

2.3.5.7 Improvements

Considering the regulatory framework, necessary improvements can be seen. According to Seitz (2019, p. 1), the Austrian government needs to strengthen its political decision-making power, as fiscal policy can be an effective tool.

Seitz (2019, p. 4; own translation) also argues that Austria needs "a fundamental change in the way the goods and services are produced and consumed". The government should advocate for an aspirational global "binding agreement on business and human rights, as is currently being negotiated in the UN Human Rights Council (Seitz, 2019, p. 2, own translation)

Furthermore, Tulder & Zanten (2018) argue that governments may try "to put the burden of the SDGs too much on corporations—without for instance providing regulations or clear financial incentives needed". These would be required to provide a higher degree of assistance, that is required to implement the SDGs (Tulder & Zanten, 2018). However, the government already aims to close the financial gap by providing the Sustainable Finance Disclosure Regulation and the EU strategy on sustainable finance.

3 CONCEPTUAL FRAMEWORK

With the implementation of SDGs in 2016, startups gained the opportunity to shape the shared responsibility assigned to them. Additionally, the SDGs primarily act as a guide for startups and companies that shows what expectations stakeholders and actors of the ecosystem have of them.

The SDGs demonstrate that there are various global challenges which need an active countering by all social actors and stakeholders. There is no one institution that can enhance and tackle all the SDGs, but it is the combination of several institutions and their ability to work in coherence which defines whether a country is able to promote the implementation of them (United Nations Development Programme, 2017). In fact, startups play besides other institutions an important role in the implementation of the SDGs, as they increase innovation and promote economic growth within a country (Cavalcanti, 2018).

However, startups need the support from various stakeholders to implement the SDGs efficiently and successfully. As the literature review shows, there are several stakeholders in the startup ecosystem which can act as a support network. These actors were chosen from the startup ecosystem and situated into support mechanism groups, being investment, business programs, educational institutions, and regulatory framework. Interestingly the literature review points out that a majority of companies believe that the government has the prime responsibility in implementing and achieving the SDGs. Hence, this will be explored using the primary research, in terms of expert interviews. Moreover, the literature review revealed that there are several disincentives that can cause ventures to not invest into sustainability. However, the reasons vary and therefore this will be explored further using the expert interviews. Lastly, the effectiveness and usage of the support mechanisms on startups has not been explored yet and leaves a lot to be desired.

In other words, this approach questions the effectiveness of the support mechanisms towards startups within Austria, leading to the question: How well are the existing support mechanisms equipped to guide startups in implementing the SDGs?

Figure 7 shows a flow chart in which the influence of the support mechanisms on the startups within the SDG framework is demonstrated. The support mechanisms are marked in dark blue at the top with the associated actors below. Accordingly, the supporting instruments are in the funnel from each support mechanism, which "flow" to the startups. The grey area highlights the fact that the framework is considering the Sustainable Development Goals.

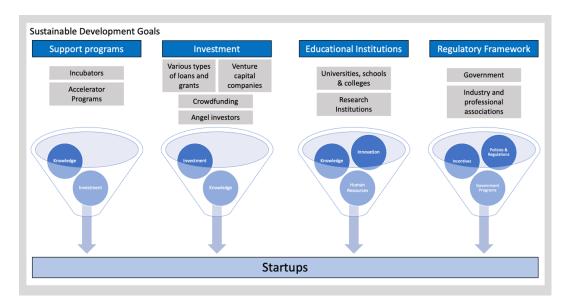


Figure 7: Support mechanisms in the SDG framework

A question that arises by looking at the flow chart is: Which support mechanisms within the ecosystem do the startups know of, and do they make use of them? Accordingly, one might ask themselves the following question: How effective are the support mechanisms in the eyes of the startups? These questions might provide an insight about whether there has been done enough in terms of the information spread on the SDGs and the associated help provided by various support mechanisms. In order to gain primary information and insights, these questions will be included in the methodological part of this thesis.

Considering the literature review of this thesis including scholarly articles, research, and statistics, it can be determined that there are five main variables that will be explored and analyzed using the interviews to answer the research question, namely:

- Awareness of the SDGs among entrepreneurs
- The usage and effectiveness of the support mechanisms
- Greenwashing
- Disincentive

• Improvements

The awareness of the SDGs among entrepreneurs will showcase if on the one side the entrepreneurs are interested in the topic of sustainability and SDGs and on the other side if there is enough information and touch points available. The usage and effectiveness of the support mechanisms explores how the entrepreneurs perceive the support mechanisms and if they make use of them in order to guide their business along sustainability. However, it is crucial to investigate on the topic of greenwashing, as startups may claim that they are working towards the implementation of the SDGs whilst they are only using them for marketing purposes. Different factors, such as time and money may play into the reason why startups are disincentivized to implement sustainable measures. Lastly, there may be improvements needed in order for the support mechanisms to best guide the startups in implementing the SDGs, which will be explored throughout the interviews.

The variables named above are determining factors of how well the existing support mechanisms are equipped to guide startups in implementing the SDGs.

4 METHODOLOGY

The goal of this thesis is to discover how well the existing support mechanisms are equipped to guide startups in implementing the SDGs. This should be answered by using the opinions and experiences of startups in Austria, which potentially identifies obstacles and barriers. The findings of this thesis are expected to inform the stakeholders and actors within the startup ecosystem on how startups can be supported in order to implement the SDGs.

As mentioned in the introduction, the guiding research question of this thesis is: How well are the existing support mechanisms equipped to guide startups in implementing the SDGs?

The assessment of the literature review has revealed that there is a large number of research that has been conducted in the field of startup ecosystems, sustainable development goals and the linkage between both of them. Conversely, the literature lacks the aspect of the support mechanisms on the implementation of the SDGs and their effectiveness. This aspect will be explored through the qualitative research of this thesis with Austria as the location of interest.

The research is expected to provide a deeper insight into the knowledge that startup founders and owners have concerning the United Nations Sustainable Development Goals. The views, reflections and opinions of the interviewees may either support or contradict the findings in the literature review. This will add the dimension of the actual business world and provide direct insights that go beyond the theory. Lastly, the interviews will supplement the aspect of the personal experience of the entrepreneurs which help to answer the research questions.

4.1 Data collection Plan

To find out, how the existing support mechanisms support startups in achieving the SDGs and how these mechanisms must be adapted to best support, semi-structured interviews have been selected as the ideal data collection methods for this thesis. The semi-structured interviews do not only allow for assessing the opinions and statements of the interviewees but also for having further insights into the experiences (Nohl, 2009). Another reason why semi-structured interviews were chosen, is that the interviews can be compared as

all participants will be required to elaborate on their views about the same themes (Nohl, 2009). Furthermore, Creswell (2005) states that interviews enable the participants to freely express experiences, insights, and opinions. Lastly, the main benefit of the semi-structured interviews is that allows the researcher to follow up and react on ideas that have been mentioned throughout the course of the interview (Nohl, 2009).

The interviews were held with founders and/or owners of startups within Austria. Some interviews were held online using Microsoft Teams due to the Covid-19 pandemic and the enduring curfew. A few interviews were held in person, as the situation allowed for it. However, it was crucial to pay attention to the fact that the interviewees feel comfortable during the interview. Therefore, the interviewees were given full control over the time and format of the interview.

Furthermore, an interview guide was provided prior to the interview to keep the interview focused on the topic. This has proven to be very useful, as the interviews were semi-structured, and the questions were not asked in the same sequence for every interviewee. Therefore, the questions within the interview guide comprised all core questions that were related to the research question. The interview guide was improved further through pilot testing before the actual interviews.

The interviews lasted on average 22 minutes. Although this seems to rather short, the interviewees had been sent the interview guideline before and came prepared, which means that they answered the questions in a straightforward way. Moreover, some interviewees did not have any knowledge about the topic which made the interviews rather short. The benefit of this interview method was that the interviewer did not have to ask for permission to use a certain venue for the interview. The most appropriate form of capturing the interviews were by recording them using Microsoft Teams and an additional microphone.

4.2 In-depth Interviews

According to Jamshed (2014, p.87-88), interviews are "... the most common format of data collection in qualitative research ". In-depth interviews are a type of qualitative research which compromises interviews with individuals to explore their perspective on a particular topic of interest (Boyce & Neale, 2006). The connotation of "in-depth",

means that there is a set of formulated questions that will be posed to a selected number of participants.

In-depth interviews generally use open-ended questions. This means that the questions should be formulated in a way that the response does not entail a "yes" or a "no" as an answer. Therefore, the interview questions must be phrased using words such as "how" or "why" to generate responses that will help answer the research questions. In-depth interviews provide, like the name already says in-depth information, unlike questionnaires and surveys. According to Parveen & Showkat (2017), an in-depth interview should be similar to an everyday conversation.

The main benefit of in-depth interviews is that one is able to obtain detailed information about the interviewee's thoughts and perspective (Boyce & Neale, 2006). Moreover, according to Parveen & Showkat (2017, p.2), "interviews are significant in unfolding opinions, experiences, values and various other aspects of the population under study". Therefore, one can say that interviews are offering a more complete picture on a specific topic, as the participants are speaking out their mind (Parveen & Showkat, 2017).

However, in-depth interviews also pose some disadvantages which must be noted. These disadvantages include, that the interview techniques throughout different interviews are inconsistent and the possibility of interview fatigue. These limitations and disadvantages will be elaborated on in further detail in a later section. However, one can say that to cope with these limitations, it is important to prepare for the interview thoroughly by for example having a practice round.

4.2.1 Expert Interviews

Meanwhile, the in-depth interview defined above falls under the category of expert interviews, as the interviewees are specialists in the field of the topic posed in the interview. According to Döringer (2020, p. 265-278), expert interviews emphasize "the experts' individual perspectives that affect social practices in a field of action" and thus provide further specialists insights into the research topic at hand. Creswell (2009) states on the same matter, that interviews enable the researcher to establish meaning on the topic through the eyes of the experts. Moreover, this way of interviewing experts is much more lucrative, as it is much easier for them to answer questions for twenty or thirty minutes

over a Skype or Microsoft Teams conversation than to sit down and type out an article from scratch.

There are three types of in-depth interviews, being structured, semi-structured and unstructured interviews. However, for the sake of this thesis, only the semi-structured interviews will be elaborated on, as this is the type of interview that this research used as identified above.

4.2.2 Semi-structured Interviews

The questions used to guide an interview are often semi-structured. A semi-structured interview has the benefit that all interviewees will be asked a similar set of questions, however, depending on the answers of the interviewee, each interview will take a different direction (Brounéus, 2021). This means that if an interviewee elaborates on a specific topic, the interviewee can deep-dive into the topic without sticking to the order of the interview guideline. Additionally, it must be mentioned that the sequence of the questions is not fixed in a semi-structured interview. This allows the interviewer to follow up on related topics raised by the interviewees (Brounéus, 2021). Having in mind that the interview questions are open-ended, it is important to encourage the interviewee to elaborate and reflect on the questions asked.

4.3 Target Population

The target population of the master thesis were entrepreneurs owning a startup in Vienna, Austria. Austria, and Vienna in particular, was chosen not only because it has shown continuous growth in the startup scene and thus its startup ecosystem and infrastructure since 2009, but also because of its many advantages for startups, which have made it one of the primary locations for starting a business, especially in 2019 (Coleman, 2019). The advantages include location opportunities due to its central position in Europe, a wide range of coworking spaces and accelerators, educational institutions as well as a large talent pool, making Vienna a ">>cosmopolitan center<<" (Coleman, 2019). There was no restriction or preference of the industry the startup works in, as long as it fulfilled the criteria of a startup defined in the literature review.

According to the Federal Association of German Startups a startup is defined by three characteristics (Kollmann, Hensellek, Jung, & Kleine-Stegemann, 2019):

1) "The company is younger than 10 years

2) Have a (highly) innovative technology and/or business model

3) Own or strive for significant employee- and/or sales-growth"

Source: Kollmann, Hensellek, Jung, & Kleine-Stegemann, 2019, p. 22, own translation

Element: Founder and/or owner of a startup (fulfilling the criteria mentioned in the literature review)

Sampling unit: Startups (fulfilling the criteria mentioned in the literature review)

Extent: Austria, with a preference of being located near and in Vienna

Time: Availability between March-April 2021

4.4 Sampling Method

The segment of the population that was selected for this research, in other words the sample, is based on a convenience approach. Convenience sampling is a type of non-probability sampling that has the aim of obtaining data from members of the population who are conveniently available. However, this approach was adapted in a way, that only entrepreneurs and startup founders were chosen as the sampling unit, which is quite different from the original approach.

There are several advantages of the convenience sampling method. The strength of this sampling technique is that it enables easy access to the participants. Moreover, convenience sampling allows for easier analysis compared to other methods, as it does not require the researcher to filter the members of the audience.

However, there are also weaknesses that come with this sampling technique, as it may result in a biased result, as the participants may belong to only one specific part of the population. This reveals another weakness, as the results cannot be applied to the whole population, due to the inability to generalize the data. Yet the interviewees originated from different industries as mentioned above.

The convenience sample approach was used as it is important to solely interview the entrepreneurs. This was crucial as only entrepreneurs within the Austrian startup scene had the knowledge needed to effectively answer the interview question and hence the

research question. The sample provided a representation of the whole population, as it included entrepreneurs and startups from different industries and areas. These areas included fintech, e-learning, consulting, and social media to name a few.

Additionally, it must be stated that the sampling method was only partially based on a convenience approach, as over 100 entrepreneurs and startups were contacted, and the researcher had no influence on who will answer and be willing to participate in the interview. These 100 entrepreneurs were selected randomly, having locations in different cities in Austria. The startups were identified through research based on the definition of the Federal Association of German Startups which was mentioned earlier. However, only 8 startups replied and were willing to participate, all of them being domiciled in Vienna. Although the extent was defined as Austria, the interviews only allow to give insights on the startup ecosystem in Vienna. Furthermore, it must be mentioned that the interviews showed a saturation after these eight interviews, as a majority of the interviewees had similar opinions and experiences. Furthermore, Ritchie & Lewis (2003) argued that qualitative research typically has a small sample size, due to the phenomenon of diminishing return where if the sample size is increased, no new evidence is found.

4.5 Interview Questions

The interview questions were put into distinct categories such as Sustainable Development Goals in General or Support Mechanisms to provide a logical flow. The interview commenced with starting questions to identify the origin of the interviewee for later evaluation and specific insight into the field of knowledge. After that Questions regarding the SDGS, their level of awareness in Austria and their necessity in startups and a question concerning the SDGS in startups followed. The next block of questioned concerned the support mechanisms and their relation to SDGs, focusing on regulations and policies as well. Corresponding the effectiveness of the support mechanisms was identified and at last possible changes within the frameworks were addressed. The questions are listed below:

Starting Questions

- 1. When was your startup found?
- 2. What industry does your startup operate in?
- 3. How many employees do you currently employ?

- 4. What product or service do you offer?
- 5. Where in Austria is your startup located?

Sustainable Development Goals in General

- 6. In your opinion, how well known are the SDGs in Austria and especially in the startup environment?
- 7. Do you see the SDGs as a guiding principle for new business areas and models? If yes, which?

Examples:

- (5) Achieve gender equality and empower all women and girls
- (8) Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all
- (9) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- (12) Ensure sustainable consumption and production patterns
- 8. Do the SDGs offer any benefit for your startup?

e.g. more investor opportunities, competitive advantage, larger network, etc.

Sustainable Development Goals in startups

9. What prevents companies/startups from aligning their business models along sustainability?

Support Mechanisms

10. Which support mechanisms do you know?

Have you benefited of them? If yes, which support mechanisms have you already made use of?

- 11. What support mechanisms related to the SDGs do you know?
 - Have you benefited of them? If yes, which support mechanisms have you already made use of?
- 12. Do you know any regulations or policies by the government that have been put in place concerning the SDGs?

Effectiveness

- 13. How effective do you think are these support mechanisms?
- 14. In what way, if any, have support mechanisms influenced your business and your perception of the SDGs?

Changes

- 15. What framework conditions would have to change for companies to consistently focus on future viability and their business models on sustainability?
 - a. What role do investors play?
 - b. What role do support organizations, such as accelerator programs play?
 - c. What role do educational institutions play?
 - d. What role does the government and the regulatory framework play?

4.6 Methods of analysis

The interviews were analyzed in a qualitative manner. In the first step the recordings of the expert interviews were transcribed word for word, in order to prepare the quotes for the discussion of the results. After that, the interview transcripts were reviewed carefully and first notes about the impressions were made. In addition to this, the researcher added comments and reflections where needed. After that relevant words, phrases, and sentences, were labeled in the transcripts. Here the method of qualitative content analysis according to Mayring (2000) was used. There are three essential techniques in qualitative research according to him: summarizing, explicating, and structuring (Mayring, 2000). This thesis lends itself to summarizing and thus the transcribed interviews will be condensed to their main aspects and main statements can then be taken from this. The texts are thus similar to the interview questions inductively divided into specific categories. These labels were categorized into actions, activities, concepts, differences, opinions, and processes. This process is referred to as coding, which was done using a software called MAXQDA.

Codes were formed due to different reasons. These reasons were repetition of ideas and opinions, surprising statements, accentuated statements, and alignments with information from the literature review or existing theories and concepts.

Following the indexing, codes were put together in categories and all codes were analyzed. Here, new codes were created by combining for example two or more codes which then created categories. These categories were then used to conceptualize the data. It was crucial to identify themes and generate meaning. Especially important were themes around similarities, differences, and theory-related materials. This created the foundation of the results of this thesis, as the data will give insights about the perspective of the participants that were interviewed. Lastly, the results are summarized and discussed. The final discussion will include quotes from the interviews to support interpretations.

As mentioned above, the interview transcripts and notes were systematically searched and codes for the relevant passages and words were created during the review. The clustered code groups can be seen in figure 8 below.

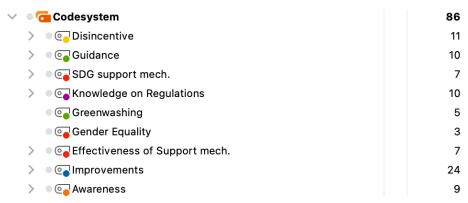


Figure 8: Entire Clustered Codesystem

The first set of codes were the "Disincentives", here the relevant text passages were coded, that referred to any hindrance in aligning the business models of their company towards sustainability and consequently the SDGs in the eyes of the interviewees and thus linked to the answers of Question 9: "What prevents companies/startups from aligning their business models along sustainability?" The subcodes of this cluster can be found in Figure 9 below.



Figure 9: Code Cluster Disincentive

The second set of clusters refer to question 7 of the interview and hence identify if the SDGs are seen as a guiding principle for new business areas and models and the specific focus on the SDGs was coded under the subsequent cluster in Figure 10.

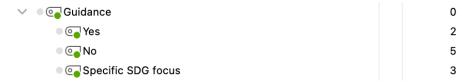


Figure 10: Code Cluster Guidance

If the support mechanisms were used in the companies of the interviewees was analyzed with the third cod cluster in Figure 11. If support mechanism were not used it was further identified if the experts had knowledge on the existence of such.



Figure 11: Code Cluster support mechanisms

Figure 12 identifies the codes that were established in order to analyze and evaluate the knowledge of the experts on the regulatory frameworks in the startup ecosystem.

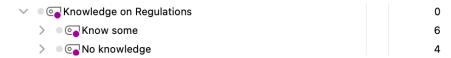


Figure 12: Code Cluster Knowledge on SDGs and support mechanisms

The effectiveness of the support mechanisms discussed and thus questions 13 and 14 were coded in the cluster in Figure 13.

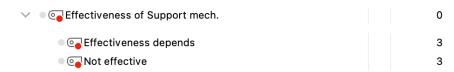


Figure 13: Code Cluster effectiveness of support mechanisms

To investigate the improvements needed in the support mechanisms to support SDGs, the penultimate code cluster in Figure 14 was established. Here, all the improvements as well as the disadvantages of the mechanisms identified by the experts were collected.

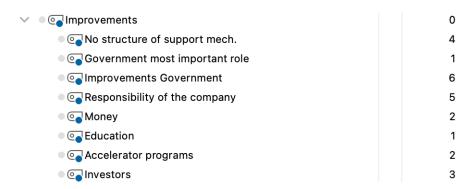


Figure 14: Code Cluster Improvements

The last code cluster in Figure 15 was created to analyze the awareness of the SDGs in Austria. Here the codes were adapted to the answers of the respondents resulting in the two codes "improved" over time and the dependence on the education.



Figure 15: Code Cluster Awareness

4.7 Evaluation of Methodology

4.7.1 Limitations

Interviews enable a new point of view on the opportunities that startups may have due to the SDGs. However, there are also several limitations that come with this research method, besides those already mentioned in the previous sections. As interviews can cause biases, the interviewees answers can be affected by the interviewer. This can have several reasons, for example the interviewer's race, class, age, or physical appearance.

An additional form of limitation could be deliberate lying from the interviewee since he or she does not want to give a socially undesirable answer. Furthermore, the interviewee could misunderstand the question and therefore respond incorrectly. Nevertheless, would this have been the case the interviewer could have rephrased the question for better understanding and therefore prevented such limitations. Another form of bias could be the non-response bias from the interviewees side which means that he or she would either be unwilling or unable to answer the question posed. Therefore, it is important to on the one hand ask easy questions which every interviewee will be able to answer. On the other hand, the questions must be phrased in a way in which the interviewee can talk a lot about the topic. Lastly, there are also mistakes that can happen from the interviewer's side. An

example would be that the question is altered through changing some words and hence the meaning of the question would change and thereafter the response of the interviewee. Nevertheless, this was not the case in this thesis.

4.7.2 Ethical Issues

Besides having mentioned the limitations of this type of interview, there are also ethical issues which must be considered and addressed. These ethical issues include confidentiality and privacy issues which could harm the participants emotionally (Parveen & Showkat, 2017). Therefore, the following steps were taken to prevent these issues.

Firstly, it was important that the procedure for the interview is laid out in writing and explained clearly to the interviewee. As confidentiality is an important concern, interviewees names will be not mentioned in this thesis unless their permission has been explicitly sought. A table summarizing the interview partners can be found in Chapter 5. Furthermore, the interviewees were asked for permission for any recorded contribution, in written form, on tape, or any other form necessary. This was guaranteed by asking the interviewee for their assent in writing prior to the interview.

To provide a transparent process, the interviewees will be allowed access to the recordings and the final analysis of the thesis if desired. Lastly, it was crucial to anonymize the interview and inform the participant about this. This is an important factor, as it increases the trust which is important for the course of the interview.

5 FINDINGS / RESULTS

The discussion of the findings comprises an in-depth analysis of the interviews that have been conducted in this thesis.

Some interviews were held in German, as this was the preferred language of choice. Hence, the discussion part of the thesis will entail several citations and paraphrases of those German interviews which have been translated to English in the brackets "[]" following the German one.

Entrepreneurs	Startup found	Industry	Number of employees	Location
Mr. Ochs	2018	Fintech (Financial Technology)	12	Vienna
Mr. Münz	2020	Digital Branche	2	Vienna
Mr. Haschej	2019	Education	11	Vienna
Mr. Wachtveitl	2020	Social Media Platform	7	Vienna
Ms. Martinez	2021	Education (E-Learning)	2	Vienna
Ms. Ambros	2019	Consulting and HR	≈ 30	Vienna
Mr. Mamikonjan	2018	Fintech (Crypto)	≈ 30	Vienna
Mr. Jayasekara	2021	Consulting & PR	3	Vienna

Table 2: Overview of Interviews

Table 2 provides a brief overview of the entrepreneurs that were interviewed. It shows the year the startup was found, the industry it operates in, the number of employees that work in the startup and the location the startup is situated in.

In terms of the chronology of concepts, the structure of the analysis will follow a similar scheme to that of the conceptual framework and the literature review, being:

- Awareness of the SDGs among entrepreneurs
- The usage and effectiveness of the support mechanisms
- Greenwashing
- Disincentive
- Improvements

The codes will be used accordingly to answer the research question: How well are the existing support mechanisms equipped to guide startups in implementing the SDGs?

5.1 Awareness of SDGs among entrepreneurs

Starting the interview, participants were asked to elaborate on how well known the SDGs are in Austria and in the startup environment. Whilst three of the entrepreneurs mentioned that the awareness on the SDGs and sustainability in general improved over time and three found that it depends on education, all agreed upon the fact that that there is a general awareness on the SDGs in Austria and in the startup environment as can be seen in table 4 below.

Awareness	
Improved	3
Depends on education	3

Table 4: Awareness of SDGs among entrepreneurs

Mr. Münz, who is the founder of a startup in the digital industry, states that the Sustainable Development Goals "... became relatively important because the whole society itself is moving towards this sustainable business." (M. Münz, personal interview, Vienna, April 20, 2021). He claims that whenever startups are founded, they must include some type of sustainable aspects into their business, as otherwise they may not be attractive to the market.

This statement is supported by Mr. Jayasekara, who is the founder of a startup that offers sustainability consulting for companies. He states: "Ich glaube dem Großteil sind die SDGs ein Begriff." [I think most people are familiar with the SDGs.] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). However, he also talks about the problem that the SDGs are known as a badge rather than on a profound level. This statement addresses

the problem of greenwashing in terms of the Sustainable Development Goals, which will be elaborated on in a later chapter.

Nonetheless, the literature revealed that Austria is struggling with a lack of awareness on a public and political level (OECD, 2020). It was argued that the reason for the lack of awareness was a slow rollout of the updated strategy for communication and education (OECD, 2020).

As mentioned beforehand, three entrepreneurs mentioned that the awareness on the SDGs and sustainability in general improved over time. However, this does not fully concur with what has been found in the literature. The OECD (2020) did in fact state that there have not been any changes in the public awareness concerning the SDGs in the recent years. Ms. Ambros states that the Sustainable Development Goals are increasingly gaining attention and that "especially in the startup environment there is a bigger awareness now and there are a lot of startups already that are impact driven and try to tackle the SDGs that are most relevant to their business model." (L. Ambros, personal interview, Vienna, April 28, 2021). However, this statement may be seen as biased, as Ms. Ambros works in an impact startup. Mr. Haschej has a similar view on the improvement of the awareness, stating that "I feel like it got better over the past couple of years." (M. Haschej, personal interview, Vienna, Mai 04, 2021). Conversely, he also stated that he does not think that everybody knows what the SDGs are, taking a broader view on the awareness and referring to the general population in Austria.

Moreover, there were some suggestions that the awareness depends on factors such as the education and the surrounding, as these themes recurred throughout the interviews. Mr. Ochs argues that everyone on his team has the background and the mindset to say that one can't just ignore sustainability. Nonetheless, the startup from Mr. Ochs does not focus on the SDGs, due to reasons which will be elaborated on in a later stage.

Likewise, Mr. Wachtveitl goes into more detail concerning the link between education and the awareness of the entrepreneurs and states: "Das hängt sehr mit dem akademischen Grad der Gründer zusammen." [This is very much dependent on the academic degree of the founders.] (N. Wachtveitl, personal interview, Vienna, April 27, 2021). He adds that in Austrian and Viennese startup hubs, nearly everyone has studied at least a few semesters and that the SDGs will eventually cross their way if they have studied in the

field of business administration. Therefore, he claims that "from the academic background of the founders, the SDGs are very present." (N. Wachtveitl, personal interview, Vienna, April 27, 2021). Therefore, one can argue that educational institutions play an important factor in the dissemination of knowledge and therefore not only support startups in implementing the SDGs but also generate talent for startups with a sustainable mindset.

Similarly, to the previous entrepreneur, Ms. Martinez also talks about the importance of education in the creation of awareness. She states that "in educational institutions, like universities you will have multiple touch points with the SDGs as well." (M. Martinez, personal interview, Vienna, April 28, 2021). Moreover, she elaborates on the fact that the level of awareness "...depends on where you spend your time." (M. Martinez, personal interview, Vienna, April 28, 2021). Here, she argues that if one spends a lot of time in a social environment where people talk about the SDGs, such as an impact hub, this will enhance the awareness. This does not only pinpoint educational institutions as a source of knowledge on sustainability and the SDGs, but also business programs.

The statements concerning the importance of education coincide with what has been said in the literature review, as it was pointed out that educational institutions are not only crucial for research and providing talent, but also for providing necessary knowledge, skills, and mindset (SDSN Secretariat, 2020). The literature review also revealed that this is also addressed in the SDGs itself, as a subgoal of SDG 4 states that "all learners acquire the knowledge and skills needed to promote sustainable development..." (SDSN Secretariat, 2020).

Furthermore, one can use the statements and the literature provided above to answer the question on how well known the SDGs are in Austria and the startup environment. The results in this chapter indicate that there is a general awareness concerning the SDGs. The interviews revealed that the level of awareness depends on factors such as the education and the surrounding of the entrepreneurs. This was proven by the literature, as entrepreneur first must gain the necessary knowledge through educational institutions to have a sustainable mindset. However, there is still room for improvement which will thus be explored in the following chapters.

5.2 Greenwashing

Although entrepreneurs are aware of the SDGs and their importance, the literature review revealed that startups may use them for marketing purposes rather than having an impact. All experts were asked on their opinion if greenwashing is a problem in the startup ecosystem.

Earlier in the interview, Mr. Jayasekara pointed out that the SDGs are known as a badge rather than on a profound level. Subsequently the interviewer asked him how he perceives the issue of greenwashing in the Austrian startup ecosystem. Concerning greenwashing he states "Ich glaube, dass viele Startups damit Geld machen und dass es ein sehr Ideologie getriebenes Thema ist." [I think a lot of startups are making money off of it, and it's a very ideology-driven topic.] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). He uses the adage "Walk what you talk" when he states that companies should implement the SDGs consistently and rigorously. Additionally, he says that it is no use to have a social or impact business that does not deliver a business model or is self-sustaining but lives on funding. Similarly, the literature review revealed that it is imperative for governments and other actors such as investors to check if startups contribute to greenwashing.

Talking about this issue Mr. Jayasekara said: "Woran misst man, ob die Ziele, die von der UN vorgegeben sind, auch im Startup oder Unternehmen erreichbar sind und erreicht werden. Wie kann man messen, was mein Beitrag als Startup zu den SDGs war?" [How do you measure whether the goals set by the UN are also attainable and achieved in a startup or company? How can you measure what my contribution as a startup has been towards the SDGs?] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). The same problem was highlighted in the literature review, as Vives (2019) mentions that the SDGs are worded so vaguely that companies can theoretically claim that any of their actions and strategies contribute to the achievement of the sustainable development goals. In addition, the statement of Mr. Jayasekara gives an indication that the SDGS are not really measurable for startups and therefore may not be viewed as so important and easily misused.

On the topic of greenwashing, Mr. Ochs states that there are two different types of greenwashing, which are difficult to distinguish from each other. He says that on the one

side there is pure greenwashing and on the other side there is the option where startups are doing something good and use this for marketing purposes. Moreover, he states "Es gibt zwei Bestandteile. Die einen Startups die SGDs wirklich als integrales Business Model verfolgen; die machen kein Greenwashing, aber das ist deren Nische. Und dann gibt es andere Startups die mehr Marketing betreiben, als das was sie tatsächlich tun." [There are two components. On the one side there are startups that really pursue SGDs as an integral business model; they're not greenwashing, but that's their niche. And then there are other startups that do more marketing than what they actually do.] (C. Ochs, personal interview, Vienna, April 19, 2021). This coincides with the findings from the literature review which identified that critics see a risk that companies are merely using the SDGs as a communication tool without adapting their corporate strategy to the goals and measuring their achievement (Morgenstern, 2020).

When asked about greenwashing, Ms. Martinez first did not know what the term means. However, after the interviewer explained the term to her, she stated "I think some startups do in fact say they are doing more towards sustainable actions, then they actually are." (M. Martinez, personal interview, Vienna, April 28, 2021). Despite that, she argues that every startup and company will try to have a positive impact in some way. Similarly, the literature review unveils that any steps that a company takes to be sustainable and implement the SDGs is a step in the right direction.

To sum up the chapter on greenwashing, one can say that the majority of the startups perceive greenwashing as a problem in the startup ecosystem. The main issue according to the entrepreneurs is that the SDGs may be seen as marketing tool and not as a guide to make a positive and sustainable impact in the world. the literature has revealed the same problem, as it is mentioned that startups may use the SDGs as a communication tool without adapting their corporate strategy to the goals and measuring their achievement (Morgenstern, 2020). This complies with another source which stated that the SDGs are worded too vaguely which may result in a situation where startups may claim that they contribute to the SDGs, although this has not been done and is not embedded within their strategy (Vives, 2019).

The next chapter will thus focus on the discussion of the knowledge that the startup entrepreneurs have on support mechanisms within Austria.

5.3 Support mechanism usage

When asked whether the participants knew the of existing support mechanisms concerning the SDGs, seven out of eight of the respondents reported that they did in fact know of some. Of these seven experts, two stated that they used one or more of them, while 5 did not make use of these as can be seen in table 5 below.

SDG support mechanism	
Used	2
Not used	5

Table 5: Support Mechanisms Usage

As Mr. Wachtveitl put it: "Ich kenne solche Unterstützungsmechanismen, aber ich habe sie bis jetzt noch nicht in Anspruch genommen." [I know of these kinds of support mechanisms, but I haven't made use of them so far.] (N. Wachtveitl, personal interview, Vienna, April 27, 2021). On the one side his point of view shows that the support mechanisms are in fact known in the startup ecosystem. On the other side one may argue that there are not enough appealing incentives for the entrepreneurs to engage in these sustainable activities as entrepreneur did know some but did not think about utilizing them.

When Mr. Ochs was questioned on his knowledge and the usage of support mechanisms he stated the following: "Unsere Investoren sind einer der größten Förderer in Österreich für financial literacy. Nur sind wir in diesen Prozess nicht eingebunden, weil wir zu klein sind. Wir müssen uns auf unser Business konzentrieren." [Our investors are one of the biggest promoters of financial literacy in Austria. Only we are not involved in this process because we are too small. We must focus on our business.] (C. Ochs, personal interview, Vienna, April 19, 2021). Interestingly, Mr. Ochs states that his startup does not make use of the support mechanisms, as they do not have the necessary capacities to contribute to the implementation of the SDGs. This ties in with the disincentives chapter of the findings section, as the startup prioritizes day-to-day activities rather than activities that deal with the SDGs.

Furthermore, Mr. Mamikonjan noted that since they did not make use of the support mechanisms, they don't know what concrete support mechanisms there are in terms of the SDGs and sustainable matters. This shows that entrepreneurs who are not acquainted with the support mechanisms and the SDGs do not know how they can have a positive impact

on the company and its performance. However, this also raises the issue, which was mentioned in the literature review in the sense that there is still a lack of awareness on a public and political level (OECD, 2020). One could say that if there would be an increased awareness, not only on the SDGs themselves but also on the support mechanisms and the benefits, that more companies would engage in sustainable matters.

Nevertheless, only a minority, being 2 out of 8 of the entrepreneurs, indicated that they have made use of support mechanisms concerning the SDGs. Mr. Haschej, the founder of a social impact startup concerned with education, stated that he received two funding from the Austria government which were related to the SDGs. One funding was from a social impact fund and the other one was a creative impact fund. Here Mr. Haschej argues that "without the SDGs …we would not have received the funding." (M. Haschej, personal interview, Vienna, Mai 04, 2021). Adding to this he states that he rather focuses on the global problems than on the SDGs, as the SDGs are "a rather boring framework" in his view. (M. Haschej, personal interview, Vienna, Mai 04, 2021).

On the same matter, Ms. Ambros stated that the startup has a "collaboration with UNIDO (United Nations Industrial Development Organization) concerning the SDGs." (L. Ambros, personal interview, Vienna, April 28, 2021). She also says that the startup has "Recently ... applied for a fund from Google, being the Impact Award, which plays into the topic of sustainability as well, as they support businesses which are working towards the implementation of the SDGS." (L. Ambros, personal interview, Vienna, April 28, 2021). However, one must state that both startups that indicated that they have made use of support mechanisms concerning the SDGs, work in the area of sustainability and have selected at least one or more SDGs they work towards. Therefore, one can argue that both entrepreneurs are social entrepreneurs as they do not focus on profit maximization but rather serve the deficiencies within the social environment. This means that the startups create a social value while making money to run the business.

To summarize the aspects gathered above it can be said that the support mechanisms in place may not work in favor of every startup. Yet the sustainable alignment and the support mechanisms that are geared towards the SDGs may provide an incentive for startups to implement them into their business.

5.4 Guiding Principle

The single most striking observation to emerge from the interviews was that only two out of eight startups regard the SDGs as a guiding principle for their business. These are the same two startups that have made use of the support mechanisms concerning the SDGs, being Mr. Haschej and Ms. Ambros as identified in table 6.

Guidance	
Yes	2
No	5
Specific SDG focus	3

Table 6: SDG as Guiding Principle

Talking about this issue Mr. Haschej stated that "the SDGs should not only be a guiding principle. SDGs should be the very foundation of what you are doing." (M. Haschej, personal interview, Vienna, Mai 04, 2021). Moreover, he added that the business world needs to move into a direction where the companies and startups, work towards the Sustainable Development Goals.

However, as mentioned prior, a common view amongst the interviewees was that the SDGs do not represent a guiding principle for their startups., as stated by Mr. Mamikonjan for example. He argues that the SDGs do not apply to the business model of the startup and his startup hence chose not to focus on them. However, at the same time he states that "im Sinne der Wirtschaft im Allgemeinen würde ich behaupten, dass sich viele darauf fokussieren." [in terms of business in general, I would argue that many focus on them.] (M. Mamikonjan, personal interview, Vienna, April 28, 2021). His standpoint indicates that the SDGs may not fit to the business model that his startup represents, whereas companies in the startup environment generally focus on the SDGs as part of their business.

Mr. Jayasekara has a similar view towards the SDGs stating: "Für mich sind die SDGs kein Motivator oder Leitbild, das Startup zu Gründen." [For me, the SDGs are not a motivator or guiding principle to found the startup] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). Although he is the founder of a sustainable consulting startup, the SDGs are not necessarily acting as a guiding principle for his startup. When asked why this is the case, he stated that a business can be sustainable without looking at the SDGs. However, he also mentioned that two SDGs are reflected in his business model, being affordable electricity and climate protection, although he does not clearly identify them

as being a central concept of his business model. Therefore, one can say that the SDGs do not necessarily have to be an act as guiding principle and can still be incorporated into the business in other ways.

To sum up the findings of this chapter, one can say that only a minority of entrepreneurs perceive the SDGs as a guiding principle for their startups. However, this does not necessarily mean that the startups that do not have the SDGs as guiding principle do not work towards the implementation of the SDGs.

5.5 Disincentive

The following section includes expert responses concerning disincentives for implementing SDGs. Entrepreneurs were questioned about what prevents companies & startups from aligning their business models along sustainability. It can already be mentioned that themes of money and time recurred throughout the interviews when posing the question above. Table 7 identifies the two prevalent disincentives and the frequency mentioned within the interview. These would be lack of funding, time and prioritization as well as regulations.

Disincentive	
Time/Prioritization	2
Lack of funding (Money)	8

Table 7: Disincentive

5.5.1 Lack of funding

The majority (75%) of those who responded to this interview question felt that a lack of capital is the main reason that startups do not align their business models along sustainability.

As Mr. Mamikonjan put it: "der finanzielle Aspekt kann Startups daran hindern sich nachhaltig auszurichten." [the financial aspect can prevent startups from aligning themselves sustainably.] (M. Mamikonjan, personal interview, Vienna, April 28, 2021). During the interview he stated that the cost factor is decisive for companies not aligning their business models along sustainability and the SDGs. On the same notion Mr. Ochs stated that: "Ohne Geld und zusätzliche Ressourcen, werden Startups immer nur nah an ihren Möglichkeiten arbeiten werden können." [Without money and additional resources, startups will only ever be able to work close to their capacity.] (C. Ochs, personal

interview, Vienna, April 19, 2021). This raises the issue of a lack of funds provided by the government. However, the literature review indicated that there are several initiatives from the government such as the Sustainable Finance Disclosure Regulation and the EU strategy on sustainable finance to close this financing gap. One can argue whether the startups even know about these initiatives and whether it is perhaps too difficult to get hold of it.

Mr. Münz alluded to the notion of the limited budget that a startup has and stated that: "Sustainable products are more expensive than not sustainable ones. If the startup does not have enough money or the budget is limited to certain fields then you need to decide either to go the sustainable way or the other one." (M. Münz, personal interview, Vienna, April 20, 2021). A similar disincentive was raised in the literature review, stating that sustainability may not be profitable for startups in the short term. This can be explained by the fact that sustainable practices are often expensive, which may raise the issue of initial funding, as startups only have limited money available at an early stage. Mr. Haschej summarizes this problem by stating:

I really think a lot of businesses think about how they are going to pay the salaries next months for example, instead of focusing on how to build a sustainable business over the next 10 years. If you think in the long term and if you look at all the problems in the world, there are so many opportunities out there. (M. Haschej, personal interview, Vienna, Mai 04, 2021)

However, Ms. Ambros argued that companies who incorporate the sustainability and SDGs into the strategy of their business, perform financially better. She stated: "Even though it comes to profitability for example, I think research shows that when it comes to gender equality that companies perform better financially. (L. Ambros, personal interview, Vienna, April 28, 2021). However, one must state that most sustainable practices are profitable in the long run, rather than in the short-term. Nonetheless she agreed with the fact that budget and costs are a rather large factor that play into this problem of not aligning the business model along sustainability.

5.5.2 Time and prioritization

A minority of participants (25%) indicated that time is a rather large factor when it comes to why startups do not align their business models along sustainability. As mentioned

earlier, Mr. Ochs stated that although their investors are working towards the implementation of the SDGs, there is not involved in the process as they are too small and have to focus on their business first. Furthermore he asked the following question: "Wie viel Zeit bleibt in einem Team, wo jeder schon etwas zu tun hat? Wer hat noch Zeit sich darum zu kümmern?" [How much time is left in a team where everyone already has things to do? Who still has time to take care of it?] (C. Ochs, personal interview, Vienna, April 19, 2021). As the startup is still young and the startup team is fairly small, the employees do not have a lot of time as the amount of work has to be distributed efficiently among all employees. However, he also states that ideally all employees should focus at least a bit on sustainability but not as a dedicated goal. Similarly, the literature review found that startups only have limited resources in terms of money and employees which may be the reason why only a minority actively pursue the implementation of the SDGs (McGuire, 2021).

A similar view was shared by Ms. Martinez who mentioned that "there are so many things that you have to do as an entrepreneur and startup founder, that you have to prioritize. (M. Martinez, personal interview, Vienna, April 28, 2021). This disincentive was also discovered in the literature review as it was found that startups may not have the capacities and resources to invest into sustainable matters as they are too busy with their day-to-day activities. On the same matter, the literature review unveiled that startups rather prioritize the development then sustainable practices due to the lack of time and resources.

This section showcases that despite of the support mechanisms in place, there are multiple obstacles in the way of startups implementing the SDGs. The replies of the entrepreneurs prove the findings of the literature review, which state that factors such as funding and time will make it difficult for startups to engage in sustainable practices.

5.6 Effectiveness of Support Mechanisms

The next section of the interview was concerned with the effectiveness of the support mechanisms. Two main themes emerged from the answers which were found through the categorization of the interviews.

Effectiveness of Support Mechanisms	
Dependent effectiveness	3

Not effective	3
---------------	---

Table 8: Effectiveness of Support Mechanisms

On the one side, three of the entrepreneurs stated that the effectiveness depends on different factors such as the needs of the startup or the industry the startup operates in. On the other side, three entrepreneurs stated that the support mechanisms are not effective in their opinion which can be seen in table 8 above. Both themes will be explored in the section bellow.

5.6.1 Dependent effectiveness

A recurrent theme in the interviews was a sense amongst interviewees that the effectiveness of the support mechanisms depends on different factors.

Mr. Münz stated that the support mechanisms are rather effective. However, he also stated that "it also depends on you as a team and you as a founder and what support you need, where you need the support and how fast you need the support." (M. Münz, personal interview, Vienna, April 20, 2021). Here the interviewee addresses the slow bureaucratic processes, which are common in Austria. These processes can also be regarded as disincentives for startups, as the process of receiving funds is associated with a lot of effort.

Mr. Mamikonjan on the other hand argued that the effectiveness of the support mechanisms is highly dependent on the industry in which the startup operates "Ich glaube, dass wenn man in einer Branche ist, welche von dem Staat sehr gefördert wird, dass man dort viel Hilfe bekommt. Zum Beispiel ist der Staat sehr interessiert im Bereich von "Healthcare Technology" als in anderen Bereichen, die nicht so relevant sind wegen der Pandemie." [I believe that if you are in an industry that is highly supported by the state, you will get a lot of help in that field. For example, the state is particularly interested in the area of healthcare technology compared to other areas that are not as relevant because of the pandemic.] (M. Mamikonjan, personal interview, Vienna, April 28, 2021). As Mr. Mamikonjan operates in the fintech industry, he claims that there a less supporting actors for this industry than for other industry that the government deems more important.

The above-mentioned statements of the experts clearly show that the efficiency of the support mechanisms is linked to several factors. It is not enough to simply choose one of the various support mechanisms. It is necessary to look closely at the extent to which the

support mechanisms can help the company, what exactly they offer, and whether they are even represented in the industry in which the startup operates.

5.6.2 Not effective

When questioned on the effectiveness of the support mechanisms in terms of the SDGs, Mr. Wachtveitl mentioned that that they are not as effective in terms of sustainability itself. Interestingly he argues that "Jedoch in Bezug auf Gender Equality würde ich sagen, dass sie sehr effektiv sind." [However, in terms of gender equality, I would say they are very effective.] (N. Wachtveitl, personal interview, Vienna, April 27, 2021). He reasons that in Austria, there are various networks specifically for women only. He names the example of 'Female Founders', who support women in learning what they need in a startup environment, as the startup scene is a very male-dominated field.

Furthermore, Mr. Ochs uncovered that the support mechanisms that he knows are not applicable for his startup. However, he states that he can't judge it from an overall economic point of view but rather speaks from the perspective as the one it affects.

Lastly, Mr. Jayasekara has taken the stand that "Das Problem bei den SDGs ist, dass dort Ziele gegeben werden, aber ohne konkreten weg dahin." [The problem with the SDGs is that targets are given there, but without a concrete way to get there.] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). He argues that without a path, any goal is difficult to achieve which means that the SDGs and the associated support mechanisms are not very effective. Therefore, he states that there is a need to improve communication and dissemination of information.

However, the literature revealed that there are multiple guides on how the SDGs can be applied. The SDG Industry Matrix for example aims to provide companies and startups with industry specific examples from different industries for actions for each Sustainable Development Goal (KPMG, 2020). The guide shows startups different ways on how SDGs are implemented in various industries which may reveal innovation opportunities and synergies that can arise from addressing the SDGs. Therefore, the interviews show discrepancies from the literature review, but may indicate that there must be done more in terms of marketing and information spread concerning these tools and guides.

To summarize this section and give an answer to the sub-research question provided above, one can say that the effectiveness of the support mechanisms depends on factors such as the industry the startup operates in and the SDGs that are prioritized by the government. This is also the reason why several entrepreneurs agreed on the fact that the support mechanisms are not effective for their startup. This aligns with the last theme that emerged from the interviews, being the improvements that have been proposed by the entrepreneurs.

5.7 Improvements

In the final part of the interview, respondents were asked what framework conditions would have to change for companies to consistently focus on future viability and their business models on sustainability. Here, several themes emerged from the answers in terms of the improvements that can be done, which can be seen in table 9 below.

Improvements	
Improvements Government	7
Responsibility of the company	5
No structure of support mechanisms	4
Investors	3
Money	2
Accelerator programs	2
Education	1

Table 9: Improvements

However, the three improvements which were mentioned most frequently, were taken into account for the analysis. The first theme is concerning the improvements of the structure and availability of the information on the SDGs. The second theme is the responsibility of startups themselves which has the to improve in order for the SDGs to be implemented more broadly. The third and last theme was concerned with the role of the government.

5.7.1 Structure of the Information on SDGs

The most striking result to emerge from the answers to this question is that almost 40% of the interviewees stated that the communication and dissemination of information in terms of the SDGs needs improvement. The result is surprising in the sense that the literature review revealed several instruments, such as the SDG Industry Matrix or the

Why, When and How Guide for Businesses, which support ventures in establishing connections between their visions and missions and the indicators of the SDGs.

Mr. Jayasekara states that although a majority understand and know the SDGs, there is no specific explanation of a way to achieve them. Moreover, he argues that without a path, any goal is difficult to achieve which makes the SDGs less effective. Towards the end of the interview, he sums it up by saying that: "Es bedarf einer Verbesserung der Kommunikation und Verbreitung der Information." [There is a need to improve communication and dissemination of information.] (M. Jayasekara, personal interview, Vienna, Mai 05, 2021). Although there are several instruments and initiatives that provide support and information for startups, there is no platform that unites all in one.

Interestingly Ms. Ambros mentioned that "there are so many support mechanisms in general that I do not know which are already in place." (L. Ambros, personal interview, Vienna, April 28, 2021). She brings up an interesting insight into this field of the structure and dissemination of information concerning the SDGs that has been addressed by Mr. Haschej, as it showcases that there are in fact numerous support mechanisms which are available and accessible for startups. However, on the other hand this shows that the information is not presented in a way that is understandable and clearly accessible for ventures.

Ms. Martinez provides an answer that reflects the responses of all other entrepreneurs by saying that "the structure has to be improved on because there is support from different kinds of institutions but if you are working in a startup you are worrying about so many things that you would need the information in an organized way in order to focus more on the SDGs and sustainability." (M. Martinez, personal interview, Vienna, April 28, 2021). She strengthens her stance in her argumentation that "there are so many different sources of support, that startups tend to get lost." (M. Martinez, personal interview, Vienna, April 28, 2021). This ties in with the statement made about the disincentives, as entrepreneurs must prioritize the development of their company and may not have time in the initial stages of their startup to take care of research on this specific subject matter.

5.7.2 Responsibility of the company

Besides the structure of the information on SDGS, a majority of the interviewed entrepreneurs pointed out that the implementation and accomplishment of the Sustainable

Development Goals is not just the task of the support mechanisms but of the startups and entrepreneurs themselves.

Two of these four entrepreneurs (Mr. Haschej and Ms. Ambros) pointed out earlier in the interview that the SDGs do in fact act as a guiding principle for their business model. Mr. Haschej states that "the actual impact should be driven by entrepreneurs, startups and companies; those who offer solutions to the challenges that we currently face." (M. Haschej, personal interview, Vienna, Mai 04, 2021). Having in mind the fact that Mr. Haschej is the founder of a social impact startup this answer provides an impact driven view to the question of improvement.

On the same matter Ms. Ambros emphasizes this point of responsibility of the startups in terms of the implementation of the SDGs and adds another dimension, when she argues that "Founders and startups have to understand that focusing on sustainability will increase the performance of their business." (L. Ambros, personal interview, Vienna, April 28, 2021). Concluding the interview, she sums up the answer to the question by stating that "In general, it would be important that the mindset of entrepreneurs and founders' changes." (L. Ambros, personal interview, Vienna, April 28, 2021). However, one must ask themselves how the mindset of the entrepreneurs can be changed. One might propose, to upsurge the information provided on the matter of sustainable practices in educational institutions such as schools and universities.

Similarly, the other two interviewees (Mr. Ochs and Mr. Wachtveitl) who did not perceive the SDGs as a guiding principle for their business model stated that the startups themselves must make an effort in order to successfully realize the goals. During the interview, Mr. Ochs questioned if it is just the duty of the support mechanisms to promote their services in order for the startups to focus on future viability and sustainability. Accordingly he stated "Ich finde als Unternehmen, musst du dich schon selbst darum kümmern." [I think as a company, you must take care of it yourself.] (C. Ochs, personal interview, Vienna, April 19, 2021). He argues that even small startups must incorporate sustainability into their business plan.

Correspondingly Mr. Wachtveitl states that: "Wir als Startups müssen es schaffen bei der Entwicklung zu lernen, dass wir erneuerbare Energien und umweltverträgliche Ressourcen in das Startup einplanen, sodass die Nachhaltigkeit ein Teil des

Unternehmens ist." [We as startups must manage to learn how to plan renewable energy and environmentally sustainable resources into the startup, so that sustainability is a part of the business.] (N. Wachtveitl, personal interview, Vienna, April 27, 2021). As mentioned earlier, it is crucial for the supporting mechanisms to motivate and inform startup entrepreneurs to implement sustainable practices and thus create awareness for sustainability. However, the entrepreneurs agree that the incremental change must be initiated by the startups themselves in order for them to be successful.

5.7.3 Government

The last theme that emerged from the question on what framework conditions would have to change for companies to consistently focus on future viability and their business models on sustainability was that the government has address the 2030 Agenda to greater extent and create more incentives for startups and investors. Mr. Haschej stated that "that not only the companies but also the governments have to change their mindset in terms of the prioritization of the SDGs." (M. Haschej, personal interview, Vienna, Mai 04, 2021). Earlier in the interview, he pointed out that the Government needs to address and at the same time support the 2030 Agenda more intensively than what has happened up until this point.

According to Mr. Münz the regulatory framework and the government is the most important support mechanism. "The government itself has the most important role, because the government needs to make it attractive to invest into sustainable companies and projects. (M. Münz, personal interview, Vienna, April 20, 2021). Moreover, he offers a proposal saying that there should an improved support system which "makes it easier to found a company related to sustainability or giving money support to companies and startups that are focusing on sustainable aspects." (M. Münz, personal interview, Vienna, April 20, 2021).

Mr. Jayasekara supports the statement of Mr. Münz as he argues that the government plays a major role but must establish appropriate steering instruments.

Both Ms. Ambros and Mr. Jayasekara suggest that the government should implement more regulations that create an incentive for startups. Ms. Ambros claims that "there would be a need of implementing more regulations and having a better incentive for sustainable practices and business models." (L. Ambros, personal interview, Vienna,

April 28, 2021). She argued that the government must create more awareness by having more campaigns in the area of sustainability which would increase the effectiveness of the SDGs. Accordingly, Mr. Jayasekara mentioned that the regulatory framework should focus on measures that encourage companies not to use up resources in the first place and thus save them and be able to use them in the long term.

Summarizing the section on the improvements for the support mechanisms, one can say that there is still room for improvement. Not only must the regulatory framework be overhauled, but also the startups themselves must acknowledge that they are the ones that drive the innovation and change. Thus, the mindset of the entrepreneurs must change, meaning that they have to comprehend the importance of the SDGs and the associated sustainable practices.

6 DISCUSSION

The analysis and evaluation of the interviews and the resulting findings in conjunction with the literature review revealed that the educational institutions as well as the startup ecosystem are prevalent factors that raise the awareness on SDGs. As already identified within the literature, they make it possible to obtain the necessary information, which was further confirmed by the experts.

Furthermore, the literature review identified greenwashing as a pervasive issue. The interview confirmed that the problem of greenwashing is still dominant when it comes to the implementation of the SDGs within startups as they are frequently misused for marketing purposes and thus startups claim that they support the SDGs and have listed these within their business model and strategy although this is not the case.

The interviews have further uncovered that although there are already various support mechanisms in place, as highlighted in the literature review, and they are more or less known, they are mostly not used because they do not meet the needs of the startups and because the startups do not have the necessary financial resources or the time to deal with them. This is somewhat controversial considering that the literature research showed the positive impact that support mechanisms can have on startups. Nevertheless, those support mechanisms in favor of the SDGs have been identified to incentivize the implementation of these mechanisms. The effectiveness of the support mechanisms further depends on the specific industry of the startup as well as government regulations. To improve the usage of the support mechanisms the regulatory framework must consequently be revised by implementing more regulations that create incentives for startups. Correspondingly the startups must understand and capture the importance of the mechanisms as well as the power of the SDGs.

7 CONCLUSIONS

The goal of this thesis was to use existing literature and primary information to find out how well the existing support mechanisms are equipped to guide startups in implementing the SDGs. Furthermore, the research identified what improvements can be taken for the support mechanisms to best support the startups in the implementation of the SDGs.

The primary research has been conducted in the form of semi structured in-depth interviews with startup entrepreneurs in Austria and validated the appropriateness of concepts uncovered and identified in the literature review.

This thesis focused on the research question of: How well are the existing support mechanisms equipped to guide startups in implementing the SDGs?

The results have shown that there is still a need for improvement concerning the support mechanisms to best support and guide startups in implementing the SDGs. Firstly, the communication and dissemination of information in terms of the SDGs must be improved. Concerning this issue, the findings point out that there are countless different sources of support which however may confuse startups due to missing information and guidance. Although there are several instruments, such as the SDG Industry Matrix or the Why, When and How Guide for Businesses, which support ventures in establishing connections between their visions and missions and the indicators of the SDGs, there is no platform with an overview or summary of the different support mechanisms.

Furthermore, the results indicate that the implementation of the SDGs is not the responsibility of the actors of the support mechanisms but rather that of the startups itself. This can be explained by the fact that the change and innovation is driven by the startups and the supporting mechanisms only play a secondary role. It is also important to note that it is not only up to startups to commit to sustainable development and the sustainable development goals, there must also be change in the political framework and legal regulations in the ecosystem and support mechanisms in order to achieve this development. Nonetheless, it can also be argued that sustainable policies do not only rely on the companies' own responsibility, but rather demands it. In contrast, policymakers themselves must ask and answer the question of the extent to which the framework conditions are set correctly or where improvements are needed. This further answers the

sub-research question on what framework conditions would have to change in order for companies to consistently focus on future viability and their business models on sustainability.

While, support mechanisms such as educational institutions and funding providers were perceived as helpful, the regulatory framework leaves much to be desired. Here it can be argued that the government must implement more regulations concerning the SDGs and create more proficient incentive for sustainable practices and business models. This gives a good overview on how effective the existing support mechanisms are.

Furthermore, the research identified how well known the SDGs are in Austria and in the startup environment. The interviews revealed that although the awareness concerning the SDGs is rather high, it depends on factors such as the education and the surrounding of the entrepreneurs. Moreover, the results of the thesis disclosed that the SDGs do not necessarily provide a guiding principle for new business areas and models. This was only the case for impact startups and social entrepreneurs.

However, it must be said that the eight entrepreneur that were interviewed in the course of this thesis are a small sample which may not represent the population as a whole. This will be further elaborated in the chapter on limitations.

8 LIMITATIONS AND FUTURE RESEARCH

8.1 Limitations

Every type of research has its flaws and therefore the research method of this thesis is not without limitations. This thesis used a qualitative approach to identify underlying assumptions that have not been acknowledged in the literature review thus far.

The first limitation is concerning the convenience sampling approach. Although this proved to be the most effective approach, there might have been a chance of a bias in the choice of the interview partners as mentioned in the methodology section before. Therefore, it might be difficult to make generalizations from the sample to the population that was studied. However, it must be stated that over 100 interviewees were contacted, and the interviewer did not know which interviewees would agree to participate.

Another limitation that may be identified as well in this thesis, is the geographic demographics of the interviewees and the focus on a specific location. As this thesis focused on Austria, the literature review and the primary research solely focused on entrepreneurs and the startup ecosystem in Austria. However, the inclusion of further geographical locations could have provided additional insights into the support mechanisms toward the Global Agenda 2030 and solve the inherent issue of generalizability and validity.

Lastly, due to the Corona Crisis and the associated restrictions, the interview process had turned out to be more difficult than expected. Therefore, some interviews were held in person and some interviews were held using Microsoft Teams, a collaborative and chatbased workspace. The disadvantages and the resulting limitations of virtual interviews, where a lack of personal connection, virtual fatigue, and network instabilities.

Virtual interviews reduce personal contact and understanding in comparison to face to face interviews. Furthermore, virtual fatigue is a common side effect of numerous virtual meetings and simultaneously sitting in one place for a long time. The interviewee was able to notice a difference between the meetings held virtually and the meetings held inperson. Lastly, a problem that occurred in some interviews that were held online was network instability, which interrupted the interview, as the interviewee had to ask the participants to repeat themselves if parts were missed.

8.2 Recommendations & Future Research

The final section of this thesis will focus on recommendations for future research.

Firstly, it would be interesting to compare and contrast the support mechanisms and their effectiveness in different countries. Having a comparison would allow the researcher to find best practice examples and eventually develop a universal guide to support startups in becoming more sustainable. Therefore, a recommendation and avenue for future research would be to broaden the sample size to European countries or even on a global spectrum. Furthermore, the highest ranked startup ecosystems could be investigated and compared to identify further improvements to counteract the previously identified disincentives.

Another recommendation for future research would be to not only interview Startups but also the stakeholders within the startup ecosystem. This would allow for a more inclusive picture of the startup ecosystem and the different actors. One could analyze the different perspectives and opinions to have a more fluent flow of information and to gain a deeper understanding of the factors that play a role outside the startup companies and why there are which regulations, business programs and education systems.

Lastly, it would be interesting for future research to not only focus on startups but also make a comparison between startups and established conglomerates. This would allow for a further analysis and give insights into how they differ and what could potentially be improved on both sides.

In summary, future research should aim to replicate results on a larger scale, as the main limitation of this thesis was the small sample size.

9 BIBLIOGRAPHY

- Achleitner, A.-K. (2018, February 14). Retrieved April 22, 2021, from Start-up-Unternehmen: https://wirtschaftslexikon.gabler.de/definition/start-unternehmen-42136/version-265490
- AIC Raise. (2020, August 28). Retrieved April 2021, from Startups Helping Achieve Sustainable Development: https://aicraise.com/startups-helping-achieve-sustainable-development/
- Ali, S., Hussain, T., Zhang, G., Nurunnabi, M., & Li, B. (2018, July 18). The Implementation of Sustainable Development Goals in "BRICS" Countries. Comparative Corporate Social Responsibility (CSR) and Sustainable Development Goals (SDGs), 10(7).
- Allianz Nachhaltige Universitäten in Österreich. (2021). Retrieved from Sustainable Development Goals & UniNEtZ: http://nachhaltigeuniversitaeten.at/uninetz/
- Austrian Federal Chancellery. (2020). *Austria and the 2030 Agenda*. Vienna: Austrian Federal Chancellery.
- Austrian Federal Chancellery. (2020). Out of a Sense of Responsibility for Austria Government Programme 2020–2024. Vienna, Austria.
- Bayrisches Landesamt für Umwelt. (2020). SDG-Wegweiser für kleine und mittlere Unternehmen. Munich: Bayerischer Industrie- und Handelskammertag (BIHK) e. V.
- Becker-Olsen, K., & Potucek, S. (2013). Greenwashing. *Encyclopedia of Corporate Social Responsibility*.
- Beldad, A. D., Huluba, G., & Jong, M. D. (2019, September 18). Different Shades of Greenwashing: Consumers' Reactions to Environmental Lies, Half-Lies, and Organizations Taking Credit for Following Legal Obligations. *Journal of Business and Technical Communication*, 34(1), 38-76.
- Bhowmik, J., Selim, S. A., & Huq, S. (2018). *The Role of Universities in Achieving the Sustainable Development Goals*. Dhaka: University of Liberal Arts Bangladesh (ULAB).
- Bilboe, C. (2020, July 3). Retrieved March 22, 2021, from Impact investors to know in Europe: https://sifted.eu/articles/impact-investors-europe/

- Billing, M. (2020, October 12). Retrieved April 2021, from Why start-ups are more likely to dodge greenwashing label: https://www.ft.com/content/5cb02b8b-a3b4-419f-ba43-4754924d87d4
- Blank, S. (2013). *The Four Steps to the Epiphany* (Vol. 5). Hoboken, New Jersey, United States: John Wiley & Sons, Inc.
- Boissieu, D. (1978). Principes de politique économique. Paris: Economica.
- Boyce, C., & Neale, P. (2006). Conducting in-depth interviews: a guide for designing and conducting in-depth interviews for evaluation input.
- Brounéus, K. (2021). In-depth Interviewing: The process, skill and ethics of interviews in peace research. In *Understanding Peace Research: Methods and Challenges*. London, New York: Routledge.
- Bruin, C. d., & Biermans, M. (2017, August 3). Retrieved March 14, 2021, from Time for a new normal in global capital markets: Advancing investment in the sustainable development goals (SDGs): https://www.c-change.io/blogs/2017/8/3/time-for-a-new-normal-in-global-capital-markets-advancing-investment-in-the-sustainable-development-goals-sdgs
- Buczko, C., Hinterberger, F., & Stricks, V. (2016). *Towards SDG implementation: The role of global resource policy and resource targets.* Vienna: Sustainable Europe Research Institute.
- Bulzomi, A., Bosch, S., & Govers, N. (2020, February). Retrieved from Who cares, wins: why investors care about the Sustainable Development Goals: https://www.pwc.nl/nl/spotlight/assets/documents/pwc-spotlight-en-2020-feb-sdg.pdf
- Bundesministerium für Bildung, Wissenschaft und Forschung. (2021). Retrieved from UN-Agenda 2030: Die globalen Nachhaltigkeitsziele / SDGs im Bereich Bildung: https://www.bmbwf.gv.at/Themen/euint/ikoop/bikoop/sdgs.html
- Bundesministerium für Bildung, Wissenschaft und Forschung. (2021). Retrieved March 13, 2021, from Bildung für Nachhaltige Entwicklung: https://www.bmbwf.gv.at/Themen/schule/schulpraxis/ba/bine.html
- Bundesministerium für Digitalisierung und Wirtschaftsstandort. (2021). Retrieved March 2021, from Agenda 2030 Umsetzung in Österreich/BMDW: https://www.bmdw.gv.at/Themen/International/Agenda-2030-SDG-Nachhaltigkeit/Umsetzung-Agenda-2030.html

- Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (2021).

 Retrieved February 2021, from Die Millenniumsentwicklungsziele:

 http://www.bmz.de/de/themen/2030_agenda/historie/MDGs_2015/
- Bundesregierung Deutschland. (2019, September 11). Retrieved March 10, 2021, from Nachhaltig wirtschaften als Chance für alle:

 https://www.bundesregierung.de/bregde/themen/nachhaltigkeitspolitik/nachhaltig-wirtschaften-als-chance-fuer-alle276606
- Business Art. (2016, September 8). Retrieved April 2021, from CEOs sehen Sustainable Development Goals als große Chance: https://www.businessart.at/ceos-sehen-sustainable-development-goals-als-grosse-chance
- Butcher, M. (2020, October 14). Retrieved March 2021, from As investors and founders mature, Vienna emerges as a European startup hub:

 https://techcrunch.com/2020/10/13/vienna/
- Cabrera, M. (2020, July 8). Retrieved March 22, 2021, from Venture capital firms are directing investors' funds towards sustainable assets:

 https://www.worldfinance.com/strategy/venture-capital-firms-are-directing-investors-funds-towards-sustainable-assets
- Cambridge Dictionary. (2021). Retrieved February 2021, from social enterprise: https://dictionary.cambridge.org/dictionary/english/social-enterprise
- Cavalcanti, R. (2018, November 12). Retrieved March 2021, from Why startups are important in achieving sustainable development: https://decelera.com/startup-powertowardsustainability/
- Chillakuri, B., Mogili, R., & Vanka, S. (2020, January). Linking sustainable development to startup ecosystem in India a conceptual framework. *International Journal of Business and Globalisation*, 25(2), 139-153.
- Clarkin, J. E., & Cangioni, C. L. (2015, September 12). Impact Investing: A Primer and Review of the Literature. *Entrepreneurship Research Journal*, 6(2).
- Coleman, A. (2019, September 10). Retrieved June 2021, from Why Vienna Is The Best Place To Start A Business:

 https://www.forbes.com/sites/alisoncoleman/2019/09/10/why-vienna-is-the-best-place-to-start-a-business/?sh=466d44844f29
- Collins Dictionary. (2021). Retrieved February 2021, from Definition of 'opportunity': https://www.collinsdictionary.com/dictionary/english/opportunity

- Collins Dictionary. (2021). Retrieved March 2021, from Definition of 'support mechanism': https://www.collinsdictionary.com/dictionary/english/support-mechanism
- Cordova, M. F., & Celone, A. (2019, December 9). SDGs and Innovation in the Business Context Literature Review. *Product Innovation and Sustainability*, 11(24). Retrieved from settings Open AccessArticle SDGs and Innovation in the Business Context Literature Review.
- Creswell, J. W. (2005). *Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Upper Saddle River, USA: Pearson Education.
- Cukier, D., Kon, F., & Lyons, T. S. (2016). Software startup ecosystems evolution: The new york city case study. *2nd International Workshop on Software Startups*.

 Trondheim.
- d-maps. (2021). Retrieved from Map Austria: https://d-maps.com/carte.php?num_car=17721&lang=en
- Dalum, M. (2019, April 14). Retrieved May 2021, from The 5 biggest challenges in UN's SDG's for companies: https://acadal.com/5-challenges-for-contributing-unsdg/
- Daniel, C. (2017, May 18). Retrieved from Österreich hat einen neuen grünen Startup Accellerator: https://www.oekoenergieblog.at/2017/05/oesterreich-hat-einenneuen-gruenen-startup-accellerator/
- Delmas, M. A., & Burbano, V. C. (2011, October 1). The Drivers of Greenwashing. California Management Review, 54(1).
- Deloitte. (2017). 2030 Purpose: Good business and a better future. London: Deloitte.
- Denchak, M. (2021, February 19). Retrieved June 2021, from Paris Climate Agreement: Everything You Need to Know: https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know
- Department of Economic and Social Affairs. (2020). Report on MSMEs and the Sustainable Development Goals. UN-DESA.
- Der Standard. (2020, July 15). Retrieved March 2021, from Österreich stellt Fortschrittsbericht zu UN-Nachhaltigkeitszielen vor: https://www.derstandard.at/story/2000118731262/oesterreich-stellt-fortschrittsbericht-zu-un-nachhaltigkeitszielen-vor
- Dermot, M. M. (2019, January 22). Retrieved April 21, 2021, from Top Innovative Companies That Target Underserved Markets:

- https://www.boldbusiness.com/society/underserved-markets-get-help-through-innovation/
- Dieye, A. M. (2018, September 26). Retrieved March 1, 2021, from Nurturing

 Entrepreneurial and Innovation Ecosystems for the SDGs:

 https://www.undp.org/content/undp/en/home/newscentre/speeches/2018/nurturing-entrepreneurial-and-innovation-ecosystems-forthe-sdgs.html
- Dill, D. D., & van Vught, F. A. (2010). National Innovation and the Academic Research Enterprise: Public Policy in Global Perspective. Baltimore: Johns Hopkins University Press.
- Doherty, B., Haugh, H., & Lyon, F. (2014, January 3). Social Enterprises as Hybrid Organizations: A Review and Research Agenda. *International Journal of Management Reviews*, 16(4), 417-436.
- Döringer, S. (2020, May 24). The problem-centred expert interview'. Combining qualitative interviewing approaches for investigating implicit expert knowledge. *International Journal of Social Research Methodology*, 24(3), 265-278.
- Dowd, L. (2018, May 16). Retrieved June 02, 2021, from Risk of 'SDG wash' as 56% of companies fail to measure contribution to SDGs:

 https://www.reutersevents.com/sustainability/risk-sdg-wash-56-companies-fail-measure-contribution-sdgs
- Doyle, D. H. (2021, April 1). Retrieved April 18, 2021, from What is the impact of the eu sustainable finance disclosure regulation sfdr:

 https://www.spglobal.com/marketintelligence/en/news-insights/blog/what-is-the-impact-of-the-eu-sustainable-finance-disclosure-regulation-sfdr
- Durlauf, S. N., & Blume, L. E. (2010). *Game Theory* (Vol. 1). London: Palgrave Macmillan.
- EMAS Geprüftes Umweltmanagement. (2020). Retrieved June 2021, from Home: Umweltmanagementsystem EMAS: https://www.emas.de/
- EMAS. (2021). Retrieved June 2021, from Ressourcensparendes Umweltmanagement mit EMAS: https://www.emas.de/was-ist-emas
- Escalfoni, R. E., França, T., Irineu, M. D., Vivacqua, A. S., & Oliveira, J. (2018, July).

 Um Método para Apoiar a Identificação de Interesses entre Participantes de

 Ecossistemas de Startups.

- EU4Digital. (2020, April 10). Retrieved from Innovation ecosystems for start-ups: highlighting the key ingredients for success: https://eufordigital.eu/innovation-ecosystems-for-start-ups-highlighting-the-key-ingredients-for-success/
- European Bank. (2014). *Transition Report 2014: Innovation in Transition*. European Bank.
- European Commission. (2021, April 21). Retrieved May 2021, from Overview of sustainable finance: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance en
- European Commission. (2021). Retrieved June 2021, from Discover how EMAS can help achieve the Sustainable Development Goals (SDGs): https://ec.europa.eu/environment/emas/emas for you/news/news86 en.htm
- European Environment Agency. (2020, December 2). Retrieved June 2021, from Austria country profile SDGs and the environment:

 https://www.eea.europa.eu/themes/sustainability-transitions/sustainable-development-goals-and-the/country-profiles/austria-country-profile-sdgs-and
- European Institute of Innovation & Technology. (2021, January 18). Retrieved March 25, 2021, from EIT Climate-KIC model: https://eit.europa.eu/our-activities/innovation/eit-climate-kic-model
- Farsi, J. Y., Moradi, M., & Zali, M. R. (2019). Opportunity domains: Invisible boundaries of entrepreneurial opportunities. *Cogent Business & Management*, 6(1).
- Federal Ministry of Education, Science and Research. (2018). *Austrian National Development Plan for Public Universities 2019–2024*. Vienna: Federal Ministry of Education, Science and Research.
- Fehling, M., Nelson, B. D., & Venkatapuram, S. (2013, November 25). Limitations of the Millennium Development Goals: a literature review. *Glob Public Health*, 8(10), 1109–1122.
- Filser, M., Kraus, S., Roig-Tierno, N., Kailer, N., & Fischer, U. (2019, August 20).

 Entrepreneurship as Catalyst for Sustainable Development: Opening the Black
 Box. Sustainable Development in Small and Medium-sized Enterprises, 11(16).
- Forrest, C. (2018, June 25). Retrieved May 21, 2021, from Accelerators vs. incubators: What startups need to know: https://www.techrepublic.com/article/accelerators-vs-incubators-what-startups-need-to-know/

- Foss, N. J., Saebi, T., & Linder, S. (2018, August 14). Social Entrepreneurship Research: Past Achievements and Future Promises. *Journal of Management*, 45(1), 70-95.
- Franco-Leal, N., Camelo-Ordaz, C., Fernandez-Alles, M., & Sousa-Ginel, E. (2019, August 10). The Entrepreneurial Ecosystem: Actors and Performance in Different Stages of Evolution of Academic Spinoffs. *Entrepreneurship Research Journal*, 10(2).
- Frazee, G. (2019, September 23). Retrieved Mai 2021, from 4 reasons it's hard to become a sustainable business:

 https://www.pbs.org/newshour/economy/making-sense/4-reasons-its-hard-to-become-a-sustainable-business
- Freiberg, A. (2006, April). The Tools of Government and Regulatory Design, presentation to the Australasian Compliance Institute. Sydney.
- Gandhi, T., & Raina, R. (2018, April 13). Journal of Global Entrepreneurship Research. Social entrepreneurship: the need, relevance, facets and constraints, 8.
- Ganti, A., & Scott, G. (2020, July 26). Retrieved May 18, 2021, from Angel Investor: https://www.investopedia.com/terms/a/angelinvestor.asp
- Global Compact. (2017, June 26). Retrieved March 2021, from SDG COMPASS AUF DEUTSCH VERÖFFENTLICHT:

 https://www.globalcompact.de/de/newscenter/meldungen/SDG-Compass-in-Deutsch-veroeffentlicht.php
- Global Impact Investing Network. (2020, June 11). Retrieved March 2021, from Annual Impact Investor Survey 2020: https://thegiin.org/research/publication/impinvsurvey-2020
- Global Reporting Initiative, United Nations Global Compact, World Business Council for Sustainable Development. (2015). *UN Global COmpact*. Retrieved February 5, 2021, from SDG Compass: The guide for business action on the SDGs: https://www.unglobalcompact.org/library/3101
- Hayek, F. A. (1945, September). The Use of Knowledge in Society. *The American Economic Review*, 35(4), 519-530.
- Hayes, A., & James, M. (2021, April 24). Retrieved May 03, 2021, from Social Entrepreneur: https://www.investopedia.com/terms/s/social-entrepreneur.asp
- Hebert, R. F., & Link, A. (1989, March). In Search of the Meaning of Entrepreneurship. Small Business Economics, 1(1), 39-49.

- Hecht, J. (2017, December 8). Retrieved April 2021, from Are You Running A Startup Or Small Business? What's The Difference?: https://www.forbes.com/sites/jaredhecht/2017/12/08/are-you-running-a-startup-or-small-business-whats-the-difference/
- Hessenmagazin. (2021, April 6). Retrieved April 2021, from Greenwashing: Dreisteste Umweltlüge für den Schmähpreis Goldener Geier 2021 nominieren: https://www.hessenmagazin.de/kurznachrichten/7197-2021-04-06-11-53-09
- Hisrich, R. (1990). Entrepreneurship/Intrapreneurship. *American Psychologist*, 45(2), 209–222.
- Hodge, G. (2007, June). Regulatory Frameworks for Urban Services. Australia.
- Hodge, G. (2007). *Regulatory Frameworks for Urban Services*. Monash University: Clayton.
- Honniball, A., & Spijkers, O. (2014, December 15). MDGs und SDGs: Lehren aus der öffentlichen Beteiligung an der Ausarbeitung der UN-Entwicklungsziele. VEREINTE NATIONEN, 62(6), 251-256.
- Horky, V. (2020, October 1). Retrieved March 2021, from Six Ways Startups Struggle
 Trying to Solve the 21st Century's Grand Challenges [Part 4]:
 https://www.linkedin.com/pulse/six-ways-startups-struggle-trying-solve-21st-centurys-vit-horky/
- Impact Hub Vienna. (2019). Retrieved March 2021, from ACCELERATOR

 PROGRAMS: https://vienna.impacthub.net/startup-accelerator-programs/
- International Environment House. (2016). Report of the Italian National Dialogue on Sustainable Finance. Geneva: International Environment House.
- Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal* of basic and clinical pharmacy, 5(4), 87–88.
- Jandeisek, I., Kannenberg, L., Moehrer, M. D., & Appiah, M. K. (2016, January). The Sustainable Development Goals from a Firm's Perspective. 16-18.
- Järvilehto, L. (2020, April 01). *Aalto Venture Program*. Retrieved March 21, 2021, from How startups can solve sustainable development goals: https://avp.aalto.fi/how-startups-can-solve-sustainable-development-goals/
- Jong, M. D., Huluba, G., & Beldad, A. D. (2019, September 18). Different Shades of Greenwashing: Consumers' Reactions to Environmental Lies, Half-Lies, and Organizations Taking Credit for Following Legal Obligations. *Journal of Business and Technical Communication*, 34(1), 38-76.

- Jury, C., Kerek, A., & Dunlap, M. (2021, March 10). Retrieved April 28, 2021, from Sustainable Finance Disclosure Regulation (SFDR): What to Expect: https://www.lexology.com/library/detail.aspx?g=3db898b8-84d5-48d5-b38f-74e141000ea1
- Kammer für Arbeiter und Angestellte für Wien. (2020). AK-Wohlstandsbericht 2020.

 Wien: Abteilung Wirtschaftswissenschaft und Statistik der Kammer für Arbeiter und Angestellte für Wien.
- Kawamorita, H., & Salamzadeh, A. (2015, January). Startup Companies: Life Cycle and Challenges. *Social Entrepreneurship in the Middle Eastern Countries*.
- Kollmann, T., Hensellek, S., Jung, P. B., & Kleine-Stegemann, L. (2019, November).

 PWC. Retrieved February 2021, from Deutscher Startup Monitor 2019:

 https://deutscherstartupmonitor.de/wp-content/uploads/2020/09/dsm_2019.pdf
- KPMG. (2020). Retrieved March 2021, from Sustainable Development Goals Industry Matrix: https://home.kpmg/xx/en/home/about/our-role-in-the-world/citizenship/sdgindustrymatrix.html
- Kumar, N., Vivekadhish, S., & Kumar, S. (2016, Jan-March). Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership. *Indian Journal Community Medicine*, 41(1), 1-4.
- Lacy, P., & Long, J. (2019, September 24). Retrieved May 2021, from UNGC –
 Accenture Strategy CEO Study on Sustainability:
 https://www.accenture.com/us-en/insights/strategy/ungcceostudy#block-about-the-study
- Law Insider. (2021). Retrieved June 2021, from Regulatory Framework definition: https://www.lawinsider.com/dictionary/regulatory-framework
- Leitner, K.-H., Zahradnik, G., Dömötör, R., Jung, S., & Raunig, M. (2020). *Austrian Startup Monitor 2019*. Wien, Wien, Austria: Home Town Media GmbH.
- Liguori, E., & Bendickson, J. S. (2020, November 5). Rising to the challenge: Entrepreneurship ecosystems and SDG success. *Journal of the International Council for Small Business*, 1(3-4), 118-125.
- Lloyd's Register. (2019, July 23). Retrieved March 2021, from So können Unternehmen die Umsetzung der weltweiten SDGs unterstützen: https://www.lr.org/de-at/aktuelle-meldungen/0723-wie-unternehmen-helfen-koennen-die-sdg-ziele-zuerreichen/

- Lloyd's Register. (2020). Retrieved March 2021, from ISO 45001: ZERTIFIZIERUNG UND TRAININGS-DIENSTLEISTUNGEN: https://www.lr.org/de-at/iso-45001/
- Lloyd's Register. (2021). Retrieved March 2021, from Umweltbewusstsein demonstrieren und nachhaltig erfolgreich sein: https://www.lr.org/de-at/iso-14001/
- Lyytimäki, J., Primmer, E., Lepenies, R., Jax, K., Pedersen, A. B., & Richard, D. (2019). Sustainable development needs comprehensive risk awareness. Helsinki: PEER-TRISD.
- Madu, C. N. (1998). Introduction to ISO and ISO quality standards. *Handbook of Total Quality Management*, 365-387.
- Mair, J., & Schoen, O. (2007). Successful social entrepreneurial business models in the context of developing economies: an explorative study. *International journal of emerging markets*, 2, 54-68.
- Majava, J., Leviäkangas, P., Kinnunen, T., & Kess, P. (2016, January). Spatial health and life sciences ecosystem: a case study of San Diego. *European Journal of Innovation Management*, 19(1), 26-46.
- Mazzoni, M. (2017). The United Nations Sustainable Development Goals: A Why,

 When And How Guide For Business. Retrieved February 2021, from SDG

 Business Hub: https://sdghub.com/project/report-the-un-sdgs-a-why-when-and-how-guide-for-business/
- McGuire, R. (2021, April 8). Retrieved June 2021, from How Startups Prioritize and Sequence: https://clearpurpose.media/how-startups-prioritize-and-sequence-395e6d36c53c
- Meadowcroft, J. (2007). Who is in Charge here? Governance for Sustainable Development in a Complex World. *Journal of Environmental Policy & Planning*, 9(3-4), 299-314.
- Merriam-Webster. (n.d.). *Merriam-Webster.com dictionary*. Retrieved February 2021, from window of opportunity: https://www.merriam-webster.com/dictionary/window%20of%20opportunity
- Messica, A., & Mehrez, A. (2002, September). Time-to-Market, Window of Opportunity, and Salvageability of a New Product Development. *Managerial and Decision Economics*, 23(6), 371-378.

- Moore, K. (2020, May 25). Retrieved March 2021, from Defining Startup Ecosystems: Key Players and Their Roles: https://medium.com/emerging-markets-start-up-scene/defining-startup-ecosystems-key-players-and-their-roles-d613a51b58a5
- Morales, E. S. (2018, September 10). Retrieved March 2021, from Why is policy coherence essential for achieving the 2030 Agenda?: https://www.unssc.org/news-and-insights/blog/why-policy-coherence-essential-achieving-2030-agenda/
- Morgenstern, G. (2020, August). Retrieved April 2, 2021, from Sustainable

 Development Goals: https://docplayer.org/189514124-Sustainable-development-goals.html
- Motoyama, Y., & Knowlton, K. (2017). Examining the Connections within the Startup Ecosystem: A Case Study of St. Louis. *Entrepreneurship Research Journal*, 7(1).
- Murphy, P. J., & Coombes, S. M. (2009, July). A Model of Social Entrepreneurial Discovery. *Journal of Business Ethics*, 87(3), 325–336.
- Murphy, T. (2015, Juli 7). *Humanosphere*. Retrieved February 2021, from News in the Humanosphere: U.N. issues final report on Millennium Development Goals: https://www.humanosphere.org/news-rounds/2015/07/news-in-the-humanosphere-un-issues-final-report-on-millennium-development-goals/
- National Action Plans on Business and Human Rights. (2021). Retrieved March 2021, from Policy coherence: https://globalnaps.org/issue/policy-coherence/
- Netto, S. V., Soares, G. R., Ribeiro, A. R., & Sobral, M. F. (2020, February 11). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32(19).
- Neubauer, C., & Calame, M. (2018, May 30). Retrieved April 14, 2021, from Global Pressing Problems and the Sustainable Development Goals: http://www.guninetwork.org/articles/global-pressing-problems-and-sustainable-development-goals
- Neufeld, D. (2021, March 18). Retrieved April 22, 2021, from UN Sustainable

 Development Goals: How companies stack Up:

 https://www.weforum.org/agenda/2021/03/how-aligned-are-un-companies-with-their-sustainable-development-goals/

- Nohl, A.-M. (2009). *Interview und Dokumentarische Methode: Anleitungen für die Forschungspraxis* (Vol. 3). Wiesbaden, Germany: Verlag für Sozialwissenschaften.
- Obrovsky, M. (2019). SDG Umsetzung in Österreich: Was es bräuchte, um vom MainstreamingAnsatz wirklich zu profitieren. Wien: Österreichische Forschungsstiftung für Internationale Entwicklung . Retrieved from SDG Umsetzung in Österreich: Was es bräuchte, um vom MainstreamingAnsatz wirklich zu profitieren.
- OECD. (2017). Policy Coherence for Sustainable Development 2017: Eradicating Poverty and Promoting Prosperity. Paris: OECD Publishing.
- OECD. (2017a, September). Education Policy Outlook Austria. OECD.
- OECD. (2020). *OECD Development Co-operation Peer Reviews: Austria 2020*. Paris: OECD Publishing.
- OECD. (2021, March 10). Retrieved April 01, 2021, from Sustainable Finance
 Disclosure Regulation (SFDR): What to Expect:
 https://www.lexology.com/library/detail.aspx?g=3db898b8-84d5-48d5-b38f-74e141000ea1
- Oelsner, G. (2016). Von der Agenda 21 zu Agenda 2030 und Sustainable Development Goals (SDG). Nachhaltigkeitsbüro der LUBW. Karlsruhe: Landesanstalt für Umwelt, Messung und Naturschutz Baden-Württemberg. Retrieved from Von der Agenda 21 zu Agenda 2030 und Sustainable Development Goals (SDG): https://www.lubw.baden-wuerttemberg.de/documents/10184/201958/2016_06_03_sdg_ka_oelsner.pdf/aa d7a3d7-c272-4e11-bd68-eb6ab697d994
- Ohr, T. (2016, July 8). Retrieved March 2021, from Austrian government passes a comprehensive startup program to make the country more attractive for startups: https://www.eu-startups.com/2016/07/austrian-government-passes-a-comprehensive-startup-program-to-make-the-country-more-attractive-for-startups/
- Orbitax. (n.D.). Retrieved from Austrian Government Program for 2020-2024 Includes
 Plans for Several Tax Reform Measures:
 https://www.orbitax.com/news/archive.php/Austrian-Government-Program-fo-40609#:~:text=Austria-,Austrian%20Government%20Program%20for%202020%2D2024%20Includes,

- for%20Several%20Tax%20Reform%20Measures&text=Increasing%20the%20b ase%20for%20the,from%2025%25%20t
- Parveen, H., & Showkat, N. (2017). *In-depth Interview*. e-PG Pathshala (UGC & MHRD).
- Pernat, D. (2021, February 25). Retrieved 2021 March, from BETTER TOGETHER: HOW COOPERATION PLAYS A MAJOR ROLE IN ACHIEVING SDG GOALS: https://vienna.impacthub.net/2021/02/25/ow-cooperation-plays-a-major-role-in-achieving-sdg-goals/
- Pirraglia, W. (2017, February 07). Retrieved March 22, 2021, from Private Vs.

 Institutional Investors: https://finance.zacks.com/private-vs-institutional-investors-6252.html
- PitchBook. (2020, July 20). Retrieved April 2021, from What are the differences between SRI, ESG and impact investing?: https://pitchbook.com/blog/what-are-the-differences-between-sri-esg-and-impact-investing
- Player, A., Randsley de Moura, G., Leite, A. C., Abrams, D., & Tresh, F. (2019).

 Overlooked Leadership Potential: The Preference for Leadership Potential in

 Job Candidates Who Are Men vs. Women. *Frontiers in psychology*, 10(755).
- Presse- und Informationsamt der Bundesregierung. (2020). Retrieved May 2, 2021, from Globale Partnerschaft: https://www.bundesregierung.de/bregde/themen/nachhaltigkeitspolitik/globale-partnerschaft-1140096
- Pretlove, B., & Blasiak, R. (2018). *Mapping Ocean Governance and Regulation*. UN Global Compact Action Platform for Sustainable Ocean Business.
- Principles for Responsible Investment. (2018, August 01). Retrieved March 2021, from SUSTAINABLE FINANCIAL SYSTEM: https://www.unpri.org/sustainable-financial-system/explaining-the-eu-action-plan-for-financing-sustainable-growth/3000.article
- PwC. (2015). *Make it your business: Engaging with the Sustainable Development Goals.* PwC.
- Quality Austria. (2019, September 2). Retrieved January 2021, from SDGs und Agenda 2030: https://www.qualityaustria.com/news/sdgs-und-agenda-2030/
- Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. (2016, February 19). *Economic and Social Council* (pp. 1-62). United Nations. Retrieved January 2021

- Ries, E. (2011). The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. New York: Crown Publishing Group.
- Ripsas, S., Schaper, B., & Tröger, S. (2017, November 14). A Startup Cockpit for the Proof-of-Concept. *Handbuch Entrepreneurship*, 1-17.
- Ritchie, J., & Lewis, J. (2003). *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. London: Editoral matter.
- Sacling Up Nutrition. (2015, October 01). Retrieved May 20, 2021, from The 2030 Agenda: For people, planet and prosperity:

 https://scalingupnutrition.org/news/the-2030-agenda-for-people-planet-and-prosperity/
- Scheerer, J. (2020). Retrieved June 10, 2021, from Warum SDGs für Unternehmen wichtig sind: https://www.bertelsmann-stiftung.de/de/unsere-projekte/abgeschlossene-projekte/verantwortungsvolles-unternehmertum-und-soziale-innovationen/projektnachrichten/warum-sdgs-fuer-unternehmen-wichtig-sind
- Schumbeta. (2019, Februar 27). Retrieved from Die SDGs als strategischer Leitrahmen für das Unternehmen: https://schumbeta.at/news/die-sdgs-als-strategischer-leitrahmen-fuer-das-unternehmen/
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Schumpeter, J. A. (1965). *Economic Theory and Entrepreneurial History*. Cambridge, MA: Harvard University Press.
- SDG Fund. (n.D.). Retrieved from Millennium Development Goals: https://www.sdgfund.org/mdgs-sdgs
- SDG Innovation Lab. (2021). Retrieved from KMU SIND BEREIT FÜR DIE ZUKUNFT: https://sdginnovationlab.com/de/
- SDG-Watch Austria. (2020, December 1). Retrieved from Zwischenerfolg für SDG Watch Austria: Verstärkte Einbindung des Parlaments bei SDG-Umsetzung beschlossen: https://sdgwatch.at/de/was-wir-tun/blog/2020/12/zwischenerfolgeinbindung-parlament/
- SDSN Secretariat. (2020, September 22). Retrieved July 2021, from Accelerating Education for the SDGs in Universities: https://www.unsdsn.org/accelerating-education-for-the-sdgs-in-universities

- Seitz, K. (2019). *Nachhaltig nur auf dem Papier?* Bonn: Global Policy Forum Europe e.V.
- Shane, S. (2003). A General Theory of Entrepreneurship: The Individual-opportunity Nexus. Cheltenham, UK: Edward Elgar Publishing Limited.
- Shane, S., & Venkataraman, S. (2000, January). The promise of entrepreneurship as a field of research. *The Academy of Management Review*, 25(1), 217-226.
- Short, J. C., Ketchen, D. J., Shook, C. L., & Ireland, R. D. (2010, January). The Concept of "Opportunity" in Entrepreneurship Research: Past Accomplishments and Future Challenges. *Journal of Management*, 36(1), 40-65.
- Smith, T., & James, M. (2021, May 15). Retrieved June 2, 2021, from Crowdfunding: https://www.investopedia.com/terms/c/crowdfunding.asp
- Stam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business Economics*, 56, 809–832.
- Startup Blink. (2020). Retrieved from Map of Startups in Austria, listed by Industry and Ranking: https://www.startupblink.com/startups/austria
- Startup Blink. (2020). Startup Ecosystem Rankings 2020.
- Startup Valley. (2020, Dezember 21). Retrieved March 2021, from ESG-Investments auf dem Vormarsch: https://www.startupvalley.news/de/esg-investments/
- Steinert, A. (2017, June 23). *bits communication*. Retrieved February 2021, from Wie Unternehmen zu den SDG beitragen können: https://bits-communication.de/crmanagement/wie-unternehmen-zu-den-sdg-beitragen-koennen/
- Strandberg Consulting. (2017, September). Retrieved June 2021, from Definition of a Social Purpose Business: https://corostrandberg.com/publication/definition-social-purpose-business/
- Swain, R. B., & Yang-Wallentin, F. (2019, November 27). Achieving sustainable development goals: predicaments and strategies. *International Journal of Sustainable Development & World Ecology*, 27(2), 96-106. Retrieved from Achieving sustainable development goals: predicaments and strategies
- Temmes, A., Schönherr, N., Wiman, A., Farsang, A., & Reisch, L. A. (2017, October).

 The SDG Compass a GLOBAL VALUE tool showcase. *GLOBAL VALUE Managing business impacts on development*.
- The Commonwealth Education Hub. (2016, February 29). Retrieved March 29, 2021, from Education and the SDGs: https://www.thecommonwealth-

- education hub.net/practice-centre/find-tools-and-resources/education-and-the-sdgs/
- The portal of sustainability reporting. (2020, May 11). Retrieved from How to link the GRI Standards with the SDGs: https://www.sustainability-reports.com/how-to-link-the-gri-standards-with-the-sdgs/
- Tinbergen, J. (1967). *Economic policy : principles and design* (Vol. 10). Amsterdam: North-Holland Publishing Company.
- Tomos, F., Kumar, N., Clifton, N., & Hyams-Ssekasi, D. (2019). Women Entrepreneurs and Strategic Decision Making in the Global Economy (Vol. 1). Hershey, PA: IGI Global.
- Tondel, F., Ronceray, M., Mackie, J., & Ashraf, N. (2019, July 19). Retrieved June 05, 2021, from Implementing policy coherence: A challenge inherent to the 2030 Agenda: https://ecdpm.org/talking-points/implementing-policy-coherence-challenge-2030-agenda/
- Tulder, R. v., & Zanten, J. A. (2018, September 17). Retrieved April 2021, from Can The World's Major Companies Really Become Committed To Sustainable Development?: https://www.forbes.com/sites/rsmdiscovery/2018/09/17/can-the-worlds-major-companies-really-become-committed-to-sustainable-development/?sh=2968de655ef3
- UNECE. (2016, November 3). Retrieved March 22, 2021, from Start-up Nations:
 Innovative Entrepreneurship for Sustainable Development:
 https://unece.org/innovation/news/start-nations-innovative-entrepreneurship-sustainable-development
- United Nations Development Programme. (2017). Insitutional and coordination mechanisms. *Guidance Note on Facilitating Integration and Coherence for SDG Implementation*. (L. Garmer, Ed.) New York, NY, USA: United Nations Development Programme.
- United Nations Development Programme. (2021). Retrieved March 2021, from Background on the goals:

 https://www.undp.org/content/undp/en/home/sustainable-development-goals/background.html
- United Nations Development Programme. (2021). Retrieved March 2021, from Background on the goals:

- https://www.undp.org/content/undp/en/home/sustainable-development-goals/background/
- United Nations ESCAP. (2020, June 2). Retrieved February 2021, from A window of opportunity for sustainability transition in Pakistan amid COVID-19: https://www.unescap.org/blog/window-opportunity-sustainability-transition-pakistan-amid-covid-19
- United Nations Global Compact & KPMG. (2016). SDG Industry Matrix Industrial Manufacturing. United Nations.
- United Nations. (2015, September 25). *UN*. Retrieved February 12, 2021, from Transforming our world: the 2030 agenda for sustainable development.: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
- United Nations. (2019). *The Sustainable Development Goals Report 2019*. New York: United Nations Publications.
- United Nations. (2021). Retrieved February 1, 2021, from Transforming our world: the 2030 Agenda for Sustainable Development: https://sdgs.un.org/2030agenda
- United Nations. (n.D.). Retrieved from The Sustainable Development Agenda: https://www.un.org/sustainabledevelopment/development-agenda-retired/
- Veglio, F. (2020, January 24). World Business Council for Sustainable Development.

 Retrieved February 2021, from The future is determined by what we do now, and the window of opportunity is closing fast:

 https://www.wbcsd.org/Overview/News-Insights/WBCSD-insights/The-future-is-determined-by-what-we-do-now-and-the-window-of-opportunity-is-closing-fast
- Vekic, A., & Borocki, J. (2017). The role of institutions in supporting startup companies. *XVII International Scientific Conference on Industrial Systems*. Novi Sad: University of Novi Sad.
- Vetterlein, A., & Kjaer, P. F. (2018, March 26). Regulatory governance: rules, resistance and responsibility. *Contemporary Politics*, 24(5), 497-506.
- Vives, A. (2019, November 2019). *Green Bize*. Retrieved February 08, 2021, from Needed: A systematic effort to monitor and report greenwashing related to the SDGs: https://www.greenbiz.com/article/needed-systematic-effort-monitor-and-report-greenwashing-related-sdgs

- Vujasinović, P. K., Lipenkova, S., & Orlando, E. (2019). *The Role of Social Entrepreneurship as a key driver of the Agenda 2030*. United Nations Industrial Development Organisation.
- Walkate, H., & Krosinsky, C. (2018, October 4). Retrieved March 28, 2021, from A More Enlightened Approach to SDG Investing:

 https://ssir.org/articles/entry/a more enlightened approach to sdg investing
- Was ist ein Start-up-Unternehmen. (2020, March 03). Retrieved March 2021, from Franchise Portal: https://www.franchiseportal.at/definition/start-up-unternehmen-a-29010
- Way, C. (2015). *The Millennium Development Goals Report*. New York: United Nations.
- Wiener Zeitung. (2020, July 15). Retrieved from Österreich präsentiert Bericht zu UNO-Nachhaltigkeitszielen:
 https://www.wienerzeitung.at/nachrichten/politik/oesterreich/2067953Oesterreich-praesentiert-Fortschrittsbericht-zu-Nachhaltigkeitszielen-derUNO.html
- Wirtschaftskammer Österreich. (2021). Retrieved from WKO working for your company: https://www.wko.at/service/Austrian-Economic-Chambers.html
- World Health Organization. (n.D.). Retrieved from Millennium Development Goals (MDGs): https://www.who.int/topics/millennium development goals/about/en/
- Writer, S. (2020, April 13). Retrieved June 2021, from What Is the Definition of a Regulatory Framework?: https://www.reference.com/world-view/definition-regulatory-framework-b70514a0defa893b
- WWF Österreich. (2015, September 28). Retrieved from 193 STAATEN EINIGEN SICH AUF NACHHALTIGE ENTWICKLUNGSZIELE:

 https://www.fishforward.eu/at/world-leaders-agree-sustainable-development-goals/
- Youssef, A. B., Omria, A., & Boubakerb, S. (2018, April). Entrepreneurship and sustainability: The need for innovative and institutional solutions. *Technological Forecasting and Social Change*, 129, 232-241.
- Zhou, M. (2019, August 22). Retrieved April 20, 2021, from ESG, SRI, and Impact Investing: What's the Difference?: https://www.investopedia.com/financial-advisor/esg-sri-impact-investing-explaining-difference-clients/

APPENDICES

Appendix 1 – Interview Partners

Entrepreneur	Sex	Industry	Interviewing Mode	Duration
Mr. Ochs	M	Fintech	MS Teams	30
Mr. Münz	M	Digital Branche	MS Teams	16
Mr. Haschej	M	Education	MS Teams	26
Mr. Wachtveitl	M	Social Media Platform	MS Teams	24
Ms. Martinez	F	Education (E-Learning)	In person	14
Ms. Ambros	F	Consulting and HR	In person	12
Mr. Mamikonjan	M	Fintech (Crypto)	In person	13
Mr. Jayasekara	M	Consulting & PR	MS Teams	28

Table 10: Interview Partner