# Master Thesis

Sustainable development within the Danish hotel industry

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#### **Abstract**

Sustainable development has received increasing attention in recent years, with governments, NGOs, businesses, and consumers becoming more involved within the sustainable movement than ever before. The global climate crisis and the Covid-19 Pandemic can be considered a Kickstarter towards an increased environmental commitment from businesses worldwide.

This paper reviews and assesses sustainably committed hotel chains in Denmark using comparative analysis. Three Danish hotel chains have been analyzed to gain an understanding of their individual sustainable development within the hotel industry in Denmark. Furthermore, several external suppliers, as well as sustainable experts, have been integrated into the study to identify the general sustainable commitment in Denmark, specifically focussed on the hospitality sector. Having identified each of the hotels' commitment to sustainability, including determining main challenges within the hotel sector, as well as the change in demand, competitive advantages, the use of sustainable certifications, and the UNs sustainable development goals involvement. It can be concluded that the three analyzed Danish hotel chains point to a strong commitment to the sustainable movement in Denmark, together with being a motivational inspiration towards suppliers, employees, and consumers in the Danish market.

In addition, several changes within the Danish market indicate an increasing demand for a stronger sustainable commitment within several industries. These demands also point out certain challenges arising from the governments' lack of involvement, which has resulted in several self-regulated sustainable initiatives within the Danish market, as preparation for potential drastic changes that may occur as we get closer to 2030, and Denmark needs to provide factual results on the climate crisis.

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#### 1. Introduction

Sustainability has over the years had a tremendous increase of interest within governance, business, communities, and the private sector, and most especially within the tourism and hotel industry (Dogru et. al., 2020; Işık, et. al., 2019). Specifically, green (sustainable) hotels have experienced an increase in demand. According to Mohd & Mohd (2015), the increasing awareness of green choices, the overall understanding of the environment has affected customers' decision-making when choosing between conventional and sustainable hotels. It is even argued that higher costs of sustainable hotels are accepted more by consumers, due to the understanding of the increasing environmental issues associated with the tourism industry, and their contribution to making a positive impact (Demir, et. Al., 2020).

Even the band Coldplay announcing that they will do a tour with an 'eco-friendly' focus, which includes cutting CO2 emissions by 50%, and funding the planting of a tree for every ticket sold (Coldplay: Band ready for backlash over eco-friendly world tour, BBC, 2021), as well as architect Bruce Becker developing one of the first net-zero hotels in the United States under the name Hotel Marcel, branded under Hilton. The hotel will be run independently of fossil fuel and powered by energy generated onsite (Chen, 2021).

It is argued that businesses, in general, would introduce sustainable actions because of two main reasons: (1) the business may be concerned with the negative impacts generated from the business and industry, and therefore introduce sustainable initiatives to tackle these issues because they believe it to be the right choice. (2) the pragmatic approach, where businesses see sustainable involvement as commercially beneficial to the company, such as improving the company's image through PR and marketing activities, which could offer increased profits (Peattie, 1992; Cannon, 1994). Corporate responsibility through self-regulation initiatives within the tourism industry has for many years been the sole reaction to environmental and social matters within the tourism industry. Arguments indicate that it is the companies' own long-term self-interest to act in a sustainable way, and they must take responsibility for their actions that may bring social and environmental impacts. Moreover, it has also been discussed that such actions might lead to an increased ability within problem-solving and generally promotes themselves to act more responsibly (Field, 1994; Bramwell & Alletorp, 2001).

The COP26 Climate Summit is just one of the examples of the current international sustainable projects to tackle the global climate crisis (Åberg, 2021). In a commitment to change the global climate crisis, governments around the world have signed the UN Framework Convention of Climate Change (UNFCCC) which brings signatory governments together once a year to discuss how to jointly address the climate crisis. COP26 is a summit for global climate changes put forward by governments from around the world to decrease global emissions by half before 2030 and reach net zero by 2050, all to tackle the limiting warming to 1.5 degrees (Åberg, 2021).

According to a study developed by EY Parthenon, OC&C strategy consultants and Booking.com, (EY Parthenon, OC&C, Booking.com, 2021) accommodations account for 264 million metric tonnes of CO2-equivalent direct and controllable emissions: this amounts to roughly 10% of the total annual emissions of the tourism industry. The study suggests that the accommodation sector can reach net-zero emissions by 2050, but that 768 billion Euros needs to be invested within the next two decades. In addition, the study implies that even though decarbonization of the entire sector is a major challenge, there is significant potential. Unlike the aviation industry that requires new technological developments, the accommodation sector offers opportunities to cut emissions and operating costs, with existing technologies; the accommodation sector, therefore, has the opportunity to be the frontrunner within the climate transition. On the other hand, the sector itself offers major barriers for a successful implementation towards a net-zero transition, such as insufficient sense of urgency, lack of financial resources and knowledge gaps, as well as the consequences which occurred from the COVID-19 pandemic, an industry that was particularly bruised, but at the same time this also opens up the opportunity to confront these challenges with cooperation from all industry stakeholders (EY Parthenon, OC&C, Booking.com, 2021).

Since the start of the COVID-19 pandemic, the tourism and travel industry has reached an opportunity to address the impacts and challenges triggered by the industry's acceleration and take advantage of the possibility to make a more sustainable future for travellers, communities, and destinations (Travalyst - Sustainable Tourism, n.d.). World Travel & Tourism Council (WTTC, 2021) also states that it also emphasized the urgency of "building back better" - a commitment to be better than before the COVID-19 pandemic (Misrahi & Jus, 2021). A similar argument was also presented by the co-founder of campaigning group Tourism

Declares a Climate Emergency, from 'Much Better Adventures, Sam Bruce (2020): "Things needed to change. It's an opportunity for everyone from tourist boards to tour operators to reset and to look at how things can be better — for the planet, for local communities, and travelers." Sam Bruce argues the importance of a sustainable change within the tourism and travel sector, especially at a time when the impact of travel is minimized due to the pandemic (Dunford, 2020). Likewise, Gössling, et. al., (2020) argues that the magnitude of the pandemic, creates an urgent need to not go back to 'business-as-usual' once the crisis is over, but instead it must be considered an opportunity to reconsider a transformation of the global tourism system more aligned to the SDGs.

The increased awareness around social, environmental, and climate issues have spurred sustainable changes all over the world, from sustainable destination development to waste management, climate and neutrality, etc. (Misrahi & Jus, 2021). Examples of this are already seen in Venice with DMO (Destination Management Organizations) and the Italian government banning cruise ships entering the historic center of Venice and limiting the number of tourists entering the city (Buckley, 2021; Giuffrida, 2021), inserting a law on private rentals of accommodation for only an extensive stay of minimum 30 days in Barcelona, Spain (Hansen, 2021), moving tourism to outer areas outside of the city center in Copenhagen, Denmark (Wonderful Copenhagen, 2020), including Amsterdams initiative to tackle over-tourism by launching a sustainable taskforce to map the way forward for tourism within the city; by attracting the "right" kind of visitor and giving the city back to the locals (Dunford, 2020).

WTTC also argues that the sustainable change to tackle the climate crisis is not only on ethical grounds but also due to an increasing demand arising from the 'travelers of tomorrow'. Notably, WTTC has developed a Sustainability Strategy focusing on three main pillars, particularly climate, environment, and social issues - a commitment to supporting countries, destinations, and communities in recovering from COVID-19 while attaining long-term sustainability from plastic waste management, to diversity, food waste, and even mental health, etc. (Misrahi & Jus, 2021).

#### 1.1. Problem formulation

In the sense of sustainability, there is a broad range of initiatives that the hotels can start with, from reducing the natural resources to minimizing their waste management (EY Parthenon, OC&C, Booking.com, 2021; Ioannidis, 2021; Jones, 2017). At the same time, it wouldn't be possible for just hotels to tackle the issue connected to social, environmental, and climate change, however, it requires cooperation and contribution by all the industry's stakeholders, e. g. government, OTAs, travel platforms, tourists, etc. (EY Parthenon, OC&C, Booking.com, 2021). Another point influencing the implementation of sustainable operations within hospitality can be the lack of urgency, since, after the Covid-19 pandemic, the hotels are focusing on attracting guests, creating unique experiences, and generating profits rather than thinking about sustainability (Jones, et. al., 2017; EY Parthenon, OC&C, Booking.com, 2021;). The lack of resources to afford sustainable implementations can be an issue, specifically in the combination of factors when the hotel wishes to appeal to its guests as a sustainable choice and increase the probability of a profit, it can encourage the hotel to greenwash (EY Parthenon, OC&C, Booking.com, 2021; Rahman, et. al., 2015). Greenwashing is a technique presented by a business, promoting sustainable actions, which their company is not doing. They promote sustainability only in the sense of increasing the chances for higher profit and bigger customer interest (Wilmoth Lerner, 2011). There are many different issues and complexities connected to the implementation of sustainable operations within the hospitality sector. We see a gap in the research concerning the Danish hospitality sector and the Danish hotels' initiatives towards becoming more sustainable, and the fact that Denmark is in many ways far ahead in terms of sustainable actions in comparison with other European countries.

#### **1.2.** Research Question & Sub-questions

#### 1.1.1. Research Question

#### " How are hotels in Denmark working towards becoming more sustainable?"

Sustainability is a broad topic that can be interpreted in many ways (Jones, et. al., 2017). As we studied the sustainability operations within hospitality, we have found that there are many ways to implement sustainability and three sustainability pillars - environmental, social, and economic. In this thesis paper, we are going to focus on what we find as a 'gap' in the academic database, concerning specifically Danish hospitality. We will debate on the complexity of 'sustainable hospitality' among Danish hotels and what initiatives the hotels take to become more sustainable. This research question will include three main subquestions stated below. These will deliberate mainly on the topics of value creation through circular economy, green certifications' value, and UN's Sustainable Development Goals.

#### 1.1.2. Sub-Questions

#### How are circular economy and collaboration utilized within Danish hotels?

The first sub-question will discuss the competitive advantage that the circular economy brings to the Danish hotel industry. The circular economy is a substitute to the linear economy, which has been a 'usual way' for businesses caring about their product (Julião, et. al., 2018). The circular economy specifically focuses on extending the life cycle of the product/service in which case there is a minimum impact on life on the planet. It's been proven that many companies can benefit from more sustainable management, and it can not only advance efficiency but also gain customer loyalty (Julião, et. al., 2018).

Most of the hotels currently focus on the first 3Rs of the circular equation of 6R, where mostly - Reduce, Reuse and Recycle play the main role (Rodríguez-Antón & Alonso-Almeida, 2019). The circular economy can be perceived as a tool to improve living conditions for the whole world, and it also may be seen as a necessary tool to support the process of achieving SDGs for 2030, which work as a framework for businesses and society to help fight the climate change as well as inequalities in the world (Sorin & Einarsson, 2020). That is why it is necessary

to investigate how the circular economy is perceived in Danish hotels and how it creates opportunities for collaborations and offers an improved competitive advantage.

#### How do sustainable certificates bring value to the Danish hotel sector?

The second sub-question will be developed based on the advantages, disadvantages, and problems concerning green certification within Danish hotels. Considering that many sustainable certificates are voluntary and offered through a third party to evaluate the business' overall sustainability, can the lack of sustainable certificates create certain barriers among some suppliers, and businesses. This concerns especially smaller suppliers who cannot obtain certificates due to fees associated with the certificate, or the lack of resources and capabilities (Mori Junior, et. al., 2016).

Another point of discussion will be the lack of transparency and trustworthiness of certain certifications, supported by stakeholders/consumers lack of knowledge related to the understanding of these certificates, which can develop in misleading the stakeholders and consumers towards false information of being sustainable, also known as a 'greenwashing' (Stark & Levin, 2011). In a sustainably developing world, how should hotels utilize the certificates and use them as an added value to their services will be the main point of this discussion?

#### How are the SDGs utilized within the Danish hotel industry?

The third sub-question will talk about Sustainable Development Goals (SDGs) within the hotels in Denmark. This framework of 17 common goals developed by the United Nations requires all the governments', as well as businesses' commitment, specifically in the tourism and hospitality sector, where the negative impacts on our planet and society are very crucial (THE 17 GOALS | Sustainable Development, 2021).

SDGs can be used in two different ways - rather as a framework for the hotels, which then integrate them as several sustainable initiatives in hotel operations and go 'above and beyond, or they use the SDGs as promotional benefits to turn these into an economic profit (Jones, et. al., 2017). The discussion of this sub-question should question the hotel's

involvement with certain SDGs and show different motivating aspects for hotels to implement SDGs into their operations.

#### 1.2. Context

The case study referred to two processes - one concerning the location and specific hotels that our thesis will focus on, and second, the topic of sustainability within the hospitality sector which will be the main topic of this thesis. This section is split into these two parts for a better understanding of our actions and to better explain our decisions through particular steps of our research and analysis.

What concerns the hotels' selection process and the location identification, we started brainstorming about the hotel sector globally. As part of our idea and interest, these hotels were supposed to be focused on sustainability in general terms, such as example focusing on supporting any of the SDG goals, implementing circular economy, having 'Green' certifications (Green Key, eco-certification), or be included in various projects supporting sustainability (collaborations, movements).

Further on, we changed the idea of focusing on the hospitality sector as such, because it would be too broad, and started focusing on hotels 'closer to the area where we live' - hotels in Europe. We have read through the websites of larger hotel chains, which could be potentially our target group, and tried to set a target group of the hotels - such as IBEROSTAR Hotels & Resorts (only those in Spain and Portugal), Accor Hotel Group, NH Hotels. As the process went on, we also tried to research 'smaller' actors in this environment, leaving us to single hotels or local hotel chains, as for example Green Solution hotel in Bornholm and Martin hotels in Belgium.

In the end, we have scoped the focus to hotels situated only in Denmark. With those that wanted to be part of this paper, we were able to discuss relevant questions and gain insights on their sustainable actions. In the end, we specifically chose to focus on the hotels with extensive sustainable actions and programs, which not only support one or two sustainable actions, but use sustainability through all organizational processes, support its future development, and work towards positive impacts on our environment.

As a result of primary data collection when we contacted 41 hotels/hotel representatives, we were able to receive 4 answers from hotels/hotel chains that were located in Spain and in Denmark. By the main answers, we mean that the hotels not only agreed to fill in our questionnaires or agreed to set the interview, but that we have actually received the answers from our questionnaires (as in the case of Ohla Barcelona) and from the online or in-person interviews (with Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotels). At first, we have decided to focus on the four named hotels and on the area where these are located, Spain and Denmark. Further on we have re-evaluated this decision and kept the interview from Ohla Barcelona only as inspiration and possibilities of sustainable implementations for three Danish hotels (Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotels) which have become the main subject and main actors of this thesis.

#### 1.2.1. Hotel's introduction

#### **Sinatur Hotels & Conference Centre**

Sinatur Hotels is a Danish hotel chain that was established in 2007. Currently, it has 6 hotels, between 3-4 stars, located around the islands of Denmark. This hotel chain targets mostly businesses and focuses on conferences rather than leisure (Nielsen, Sinatur Hotels, Interview, 2021). The Sinatur Hotels are always situated at a close distance from nature or in the natural site itself. They have sustainability strictly incorporated in their everyday operations, including for example only using locally grown food products, and focusing on the preservation of the goods during the wintertime as well (Nielsen, Sinatur Hotels, Interview, 2021).

#### **Comwell Hotels Conference Centre**

Comwell Hotels is mainly a Danish hotel chain established back in 1969 (Comwell Hotels About, n.d.). Currently, this hotel chain has 16 hotels in Denmark and 2 in Sweden with a variety between 3-4 stars. Its primary target group is B2B, which concerns the guests coming for business meetings and conferences. Comwell Hotels is known for its good service, professional approach, as well as a sustainable way of being since 2015 (About Comwell, 2021). They consider themselves the most sustainable hotel in Denmark (Comwell Hotels, n.d.).

#### **Guldsmeden Hotels**

Guldsmeden Hotels is originally a Danish hotel chain, which was established back in 1999, when they opened the first hotel in Aarhus, Denmark. Nowadays, the chain has 11 hotels, 9 in Europe (5 in Denmark) and 2 outside of Europe, in Bali and Cote d'Azur (Guldsmeden

Hotels, n. d.). Guldsmeden Hotels has been driven by passion since its establishment and continues to do that until now. They haven't used sustainability as a 'selling point' for the first 10 years, since sustainability hasn't been very well known among the public (Aggersborg, 2019). This hotel chain mainly focuses on leisure tourism and always tries to be a step ahead with sustainable innovations (Aggersborg, Guldsmeden Hotels, Interview 2021).

Thanks to our common interest in the hospitality industry, similar background in Hotel Management and Marketing management, and current studies of Global Tourism Development with a focus on Sustainability, we knew from the beginning that we would like to focus on sustainability operations within the hotel industry, which we also wish to work within in our future professional career. According to our opinion, the tourism and hospitality industry is nothing else than unsustainable, and we believe that it is crucial for our future that this statement changes. As we are aware from not only our course but also from our experience, the word 'sustainability' is a very broad term and therefore, can be interpreted in many ways.

In the process, we have dug deeper into different sustainable actions in the hospitality industry. As a middle topic, we can highlight Corporate Social Responsibility (CSR). We investigated this theme at first, however, as we found out later, not all the hotels called their sustainable actions the same - some called it 'CSR', other hotels named it as 'Sustainability', and another one simply 'Responsibility'. Again, we found out that hotels are focusing on different aspects of sustainability and sustainable actions/operations and not always on the same thing.

Thanks to the gained answers from our interviews, not only with hotel representatives but also with external stakeholders on topics of sustainability and sustainability in the hospitality industry, we were able to narrow down our research into three main topics of our focus. We have identified, throughout our interviews and questionnaires, and with the help of keyword extraction (Chapter 3.1), the main areas of research - firstly, the competitive advantage through a circular economy in the hotel industry, secondly, the Sustainable Development Goals in action, and lastly, green certifications value to the Danish hospitality industry, which should create a base to answer our research question.

#### 2. Methodology

The methodology chapter will explain the data collection of primary and secondary data, their validity and trustworthiness, the choice of the participants in the thesis, together with writing techniques and strategies for analyzing collected data.

It is important to say that this thesis project is based on an inductive and qualitative approach, which is supposed to ensure as high relevance and trustworthiness of the collected data towards the researched topic as possible (Thomas, 2006). The purpose of the inductive approach is to develop the findings, which appear from the recurring and vital topics present in the raw data collection, without structured interviews/questionnaires (Thomas, 2006). This allows us continuous development in the data collection in both, primary and secondary, and reinforces the description of actual effects arising from the discussions, not just the 'preplanned' ones (Scriven, 1991).

Qualitative research methods are explorative and usually accompanied by qualitative interviews and field observations (Harboe, 2013). Harboe also refers to qualitative methods as elaborative or in other words 'prepared', however, some of the social sciences rather perceive the word 'elaborative' as 'theory-developing' (Harboe, 2013). This means that we have had a theoretical and experience-has idea about the topic of this thesis, however, we were not able to come to conclusions without a proper study from the specialists and experts and proper observations from the interviews. As characteristics of the qualitative method show, only a few respondents, who are directly connected with our field of research, are included in the study (Harboe, 2013).

#### 2.1. Multiple case design

This thesis will be written according to the rules of multiple case design. According to Harboe (2013), the multiple case design is characterized by studying two or more cases at the same time. This applies to our case in the sense of the main actors that we take into consideration - Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotels. These all have different focus points and strategies to make their brands sustainable and therefore, have been studied thoroughly in detail through primary data collection (Chapter 9 Appendices) and the topics of their focus were studied through secondary data collection (Chapter 8 Resources). As per Harboe (2013) in each of the comparative analyses, there will be drawn general conclusions

when coming across the general phenomena - an extraordinary occurrence (Harboe, 2013). Throughout the multiple-case design, we applied qualitative research based on the relevance to the main topics.

#### 2.2. Primary data collection

Primary data are 'data that are collected for the specific research problem at hand, using procedures that fit the research problem best' (Hox & Boeije, 2005). Hox et. al. also refers to primary data collection as a certain experiment when the researcher decides who is going to be participating in this experiment and which direction the experiment is going to take (Hox & Boeije, 2005).

Primary data collection was initiated by reaching out to the hotels in Europe, preferably bigger chains that had developed their CSR or Circular economy projects in the hotel operations. We have contacted most hotel chains in Denmark, such as Guldsmeden Hotels, NH Collection Hotels, Arp-Hansen Hotel Group, and then hotels from other countries in Europe, such as example Kempinski Hotels in Germany and Switzerland, IBEROSTAR Resorts & Hotels in Spain, and Accor hotels in France. Since at first, we haven't seen many answers from these big hotel chains, we have decided to do in-depth research on the single hotels in Europe which would fit the profile of our targeted group, when we have contacted for example Green Solution hotel in Bornholm, Denmark, Ohla Barcelona in Spain, and Ion Iceland hotel in Iceland.

In total, we have contacted 41 hotel chains, hotels, and hotel representatives, which in many cases ended up in us being redirected to the hotel's sustainability representative or a person with expertise on this topic, who could tell us and explain more about the hotel's operations connected to sustainability and circular economy. We were successful with conducting 4 valuable interviews - one with Ohla Barcelona in Spain was conducted in the form of a questionnaire sent to Bernat Bago to answer our questions. The hotel Ohla Barcelona requested the list with our questions rather than a virtual interview and discussion. The remaining 3 responses, and interviews, we were able to gain, were from the Danish hotel chains and their representatives: Sinatur Hotels' CEO of Frederiksdal hotel Claus Nielsen, Comwell Hotels' PR & Communications Specialist Simon Verheij, and Guldsmeden Hotels' PR & Communications Manager Kirsten Aggersborg. From this moment, we narrowed down our focus on these three hotels, and location Denmark instead of the whole of Europe. The

answers from Ohla Barcelona were not found relevant for our topic further in the analysis and therefore were removed from the Appendix section.

The original aim was to gain 5 interviews with the hotel representatives, which we could then use for the multiple approach case and comparison. However, after gaining these 4 answers, we have decided to limit our multiple case approach on the three Danish hotel chains, Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotels, and focus on the area limited to Denmark.

Since the goal of our research was to prove the trustworthiness and validity of the data and have as much supportive data as possible, we have reached out to the companies and organizations which have expertise within the sustainability sector or have a connection on the effects of sustainability operations within the hospitality industry in Denmark. We have contacted hotels' sustainable suppliers Østjysk Forsyning and Årstiderne, decomposing company Daka ReFood, sustainability-oriented non-profit organization CONCITO, two representatives of Green Key (Danish hospitality certification on sustainability)/ and Horesta - one from Green Key International, Finn Bolding Thompsen, and one from Green Key regional team in Denmark and representative of Horesta, Mikal Hold, a representative of Green Destinations and owner of Northflash Consultancy focused on sustainability, consultancy company GreenMoves, Dansk Erhverv which has expertise in governmental procedures connected to sustainability, as well as Miljøministeriet (Ministry of Environment) in Denmark for the same reasons. All in all, we have succeeded in conducting interviews with all the contacted representatives, except for Arstiderne, CONCITO, and Mikal Holt from Green Key and HORESTA. We were also unfortunately not able to receive an answer from the Dansk Erhverv and Ministry of Environment, even though it was offered to us prior to the submitted questions.

Therefore, we were able to collect 4 hotel interviews, out of which 3 hotels will be the main actors in this master thesis, and 5 external stakeholders influencing the hotel's sustainable operations or have expertise in the field of sustainability in the tourism and hospitality industry.

#### 2.1.1. Interview guide

At first, few of the selected hotels were contacted through e-mail addresses or social media LinkedIn platform to be able to set an interview with them/their representative to gain answers on their initiatives and procedures connected to sustainability, possibly sustainability in hospitality as further exemplified in the Appendices section.

As previously mentioned, we were originally aiming for 5 answers from the hotel representatives, however, we were glad to receive 4 full interview responses, where 3 out of 4 interviewees have the main role in our thesis. Those are Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotel. Further on we have interviewed the external stakeholders mentioned in the Figure 1 Interviewee and keyword extraction.

All the data collection with these hotels and external stakeholders were conducted in the form of interviews with open-ended questions to ensure a great flow of the discussions and freedom for the interviewee to mention facts that he or she felt were necessary to say. The only hotel that hasn't been interviewed was Ohla Barcelona hotel when the hotel representative, Bernat Bago, requested us to provide him with a document with our questions regarding sustainability operations at this hotel and he sent us back his filled-in answers within a week later.

For the interviews, we have used the inductive approach which means that our questions were not structured in the same way, but as the inductive approach describes, it was a steady flow, which led us towards developing the discussion, focusing on similarities - keywords, in those and digging deeper into the topics of sustainable actions within the hospitality industry (Thomas, 2006). At the same time, we have used the University of Harvard guidelines for qualitative interviews. This means that the discussions were informal and open-ended when the interviewees could choose to say whatever they assumed was important to say (Harvard. n. d.). The interview worked as 'Interpersonal Encounter' when we were strictly following the guidelines of this type of interview. We have, among others, using active listening techniques, such as engaging with the interviewee through 'That sounds interesting!', 'That is so great!'. We have not only used the prepared/ direct questions, but we have also followed the interviewee, meaning we have during the interview asked follow-up questions based on the answers to our direct questions, to gain as much information on the relevant topics as possible (Harvard. n. d.).

The primary research according to the Harvard guidelines included interviews conducted virtually (via Zoom or Teams calls), via phone calls, or in-person, depending on the preference

of the representative of the hotels and companies/organizations. All the interviews took between 20-40 minutes, but in the vast majority, 20-30 minutes long. Some of the interviewees were, later, sent 1-2 follow-up questions on their email addresses as they have offered their help to elaborate on certain aspects if needed. Both, the interviewed questions, as well as the follow-up questions are stated in the appendices by the interviews with relevant participants.

Sinatur Hotels and Comwell Hotels at first requested to fill in the questionnaire just like previously Ohla Barcelona, however, after a few days they both proposed to schedule an interview - in the case of Sinatur Hotels, the interview was conducted via Zoom call, and with Comwell Hotels we were able to meet in person at their new hotel in Nordhavn, at Comwell Portside. Thanks to the answers from Sinatur Hotels, we were able to narrow down the discussion with Comwell Hotels, and further with Guldsmeden Hotels, more in-depth and focus further on their sustainable actions within the organization. We were able to do that thanks to the manual extraction of keywords from the previous interview and collected knowledge on the topics of sustainability in the hospitality, circular economy, SDGs.

To our interviewee from Guldsmeden Hotels, we reached out to its co-founder, Sandra Weinert, through a Linkedin message. She has kindly referred us to the email address of her colleague from PR and Communications, Kirsten Aggersborg, who was able to help us. Since they were under a lot of time pressure due to their 'soon to come' opening of 2 new hotels (during the period of the interview), and therefore, she informed us about being unable to answer our question file, however, she proposed a phone call interview instead.

Before the phone call, Kirsten has provided us with 2 internal documents, which specifically talked about several of their sustainable actions and procedures. In those documents, we were able to already read about some topics of our questions, like for example certifications, supply, food sourcing and food waste, and others (Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden). This helped us to diminish our questionnaire, and, at the same time, to dig deeper into certain topics as stated above.

The interviews with external stakeholders were all conducted via Zoom or Teams calls, and the questions differed depending on the specification and specialization of the company and on its connection to the hospitality industry.

Below, we have charted a table with all the interviewees, their role in the company, expertise/specification, and keyword extraction.

Name	Role	Company	Keywords
Claus Nielsen	CEO of Frederiksdal hotel	Sinatur Hotels	Organic food, local food, food waste, sustainability, circular economy, the good story, circular economy, B-Corp
Simon Verheij	PR & Communications Specialist	Comwell Hotels	Organic food, food waste, sustainability, circular economy, SDGs, education, certifications, Momondo Awareness Award, competitive advantage, sustainable demand
Kirsten Aggersborg	PR & Communications Manager	Guldsmeden Hotels	Sustainability, sustainable suppliers, circular economy, innovation, food waste, recycling, no flight policy, certifications,
Bernat Bago	Revenue Manager	Ohla Barcelona	Sustainability, sustainable operations, water, and energy consumption
Finn Bolding Thompsen	International Green Key Director	Green Key International	Green Key certification, rules, and regulations,
Astrid Carl	Founder	GreenMoves	Circular economy, sustainability in businesses
Peter Reelfs	Board member of GD, Founder of NC	Green Destinations, Northflash Consultancy	Sustainable certification, requirements for certifications, the trustworthiness of certifications
Katja Juul Nielsen	Marketing Manager of Daka ReFood, CEO of ReFood Label	Daka ReFood, ReFood Label	Waste management, food waste, circular economy, governance policies

Niels Nørgaard	Owner	Østjysk Vinforsyning	B-corp certification, sustainability, supply, organic products, local products
			•

Figure 1 Interviewees and keyword extraction

#### 2.1.2. Coding and recontextualization

The first step of our data analysis was manual coding, which has been done by listening to the recordings and noting down the keywords (Harboe, 2013). At first, the keywords connected to the thesis topic were noted down, such as 'sustainability', 'circular economy ', 'certification'. These main topics that we have charted down during the first listening part were put at first all in one group.

Further on, these words were split into groups, which we have during the next step, noted down the words that were developing or following-up on these main topics, such as, for example, 'governmental support' under 'sustainability, 'food waste' under 'circular economy, and 'greenwashing' under 'certification'. This process of placing statements in a new context is called recontextualization (Harboe, 2013).

#### 2.1.3. Secondary data collection

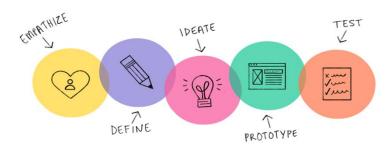
Our secondary data collection is based on desk research, focusing on finding relevant trustworthy information from past and current researchers, websites of the hotels, certifications websites, and websites of the organizations working with sustainability. These were accompanied by the current news and developments of sustainability restrictions and laws, as well as following current trends of sustainability in hospitality. To ensure the validity and trustworthiness of secondary data, special focus has been put on the data collected from research conducted on the topics of tourism and hospitality, as well as articles on sustainable actions in the hospitality industry.

Particular attention in secondary research has been aimed at gathering information relevant not only to the main topics but as well on their 'sub points' which we considered a very crucial part of our research. These were for example topics on the importance of certifications and the difference among these, greenwashing challenge, food waste, increase/decrease in consumption, etc.

Further on, we were able to use statistics and annual reports based on the circular economy, consumption in the hotels, certifications in hospitality from online sources such as for example hotel websites, certifications websites (Green Key website), together with the statistics and report provided by Sinatur Hotels. The official websites and brochures of the selected hotels, which have been also contacted in the primary research, have been a source of most of the information concerning specific operations, projects, and practices also for developing the direct questions for the interviews.

#### 2.2. Design Thinking Process

Throughout our research, we have also tried to adapt the Design Thinking Process Model developed by Herbert Simon in 1969 (Henriksen, et. al., 2017; Lewrick, Link, Leifer and Langensand, 2020; 5 Stages in the Design Thinking Process, 2021). The choice of this model was supported by its effectiveness in combination with the inductive approach. The Design Thinking Process of 5 stages allows not only to understand the problems and solutions, however, creates an option of re-thinking and re-framing them (5 Stages in the Design Thinking Process, 2021). This creates a space for new insights, analysis, and new innovations in sense of solutions.



Design Thinking Process model, how to use design thinking in the UX design process, n.d.

The first step, empathize, can be explained as a process of data collection mentioned above. In this stage, a deep understanding of the hotels, problems, and strategies was necessary (Lewrick, et. al., 2020). At first, we were trying to think about possible 'pain points' connected to sustainability in hospitality. Our primary focus proved to be very broad and started with the thought of the complexity of sustainability in the hotel industry. Further on, we tried to narrow the thoughts down as we were trying to draw the questions for selected hotels.

The define stage is supported by looking into a problem and giving it a 'shape'. Formulation of questions, potential issues arising from the secondary research information, and specifying the relevance toward the focus of the research – that all happens in this stage of the Design Thinking Process (Lewrick, et. al., 2020). In this part, we tried to define the problems more clearly as we read through the hotel's websites and their strategies in terms of sustainability and circular economy. This stage was continuously re-thought and pushed us back to the 'empathize stage' as we received back the answers from the first hotel, and then from the second, and further.

We would point out one question, one topic - for example, questions about sustainable certifications, and then, as we received an answer, we re-thought the approach to this specific topic and defined a new, more in-depth question for another interviewed hotel/hotel chain. These two sections were repeated through our data collection before we were able to acquire a clear picture and move further with the analysis.

The Ideate stage includes several processes, such as thinking outside of the box, becoming innovative, but also simply brainstorming (Lewrick, et. al., 2020). This stage is characterized by thinking of 'HOW' in sense of exploring the ways, which the analysis and discussion can take, their feasibility, and their design. In this section, we tried to describe the possible structure of the analysis. We were only able to move to the ideate stage after proper evaluation of our collected data, and as the inductive approach suggests, after narrowing down to the frequent and major topics which appeared in our raw data (Thomas, 2006). This was a crucial step in our thesis, which pinpointed the direction of our focus and therefore, our findings.

The prototype stage is an experimental phase of testing the potential solutions and ideas, which are the results of the Ideate stage (Lewrick, et. al., 2020). In this case, the prototype stage can be supported by the discussion with the hotel representatives and their point of view on the feasibility and efficiency of certain innovations they have made. Our primary focus is restrained by the research question and its sub-questions. Further on, when we started to work on the analysis, trying to keep the frame of the sub-questions, we found out that even though the topics were relevant and there was enough space for discussion, combining the academic sources with the information gained from the interviews, not one topic could stand alone. Meaning this, for example, the 'certifications' couldn't be written

without looking into different perspectives, including the governmental support, demand, and others. Therefore, the discussion has been developed in several sections as a sum-up of relevant and related topics combined.

We were not able to test the discussion on what really works the best for 'all the hotels', because as sustainability is a broad topic, each of the hotels has their own ways of sustainable development that works for them specifically. The hotel representatives have asked us to submit them our thesis after being finished, expressing a strong interest to see the outcomes and possible ideas for their businesses and their future sustainable development.

#### 2.3. Limitations

Throughout our research, we have met with several limitations which have affected the topic, process, and findings of the research.

One of the limitations concerning the primary data collection was the time and the current situation of the pandemic. Since last year, we are constantly meeting with the pandemic of Covid-19, which had a severe impact on the hospitality industry all around the world. The pandemic keeps getting stronger and weaker throughout the year's seasons and just now is the hotel industry here in Denmark starting to catch up and slowly getting back to where it was in 2019 before the pandemic started. This has an impact on our data collection in the sense of the hotels being busy building up the strategies which could gain them more guests and generate profits. Many of them did not have resources – employees to meet or talk to us about the sustainable topic at their hotel, such as Hotel Kong Arthur in Copenhagen. Therefore, only a very limited number of hotels were able to set a meeting with us and provide us with their answers and expertise on the topic of our thesis.

Another aspect of limitation was in the secondary data collection, where we were able to find certain academic papers related to the circular economy or SDGs, but only a very limited number of those related to the hospitality industry and the area of Denmark and Europe. We were able to find certain examples from hotels located in South-East Asia or Africa, but there certainly is a gap of academic research papers on sustainable development in Europe, and more specifically in Denmark. Due to Denmark's strong and advanced sustainable situation, there is very little evidence mentioning the different areas of sustainable commitment and development here. What our study will research is looking at the overall sustainable

development in Denmark, using the hotel sector as pivotal examples to determine and gain an increased understanding of the sustainable development in Denmark.

Furthermore, we are focussing on some of the issues, challenges, and opportunities that have not been discussed or analyzed in previous studies on this market. It can be argued that due to Denmark's strong social, financial, and ecological position where many of the UNs SDGs can be seen to have less importance due to Denmark's destination and overall country's regulations considering that several of the UNs SDGs are already incorporated into the Danish laws.

Therefore, our research hopes to fill in this gap, however, due to the lack of academic material on this topic, there might be limited validity in our statements and findings. These were supported by our primary research and articles to back the validity and trustworthiness of our work.

# 3. Literature review: Circular Economy, Sustainable Development Goals & Sustainable Certificates

The concept of circular economy was developed as an optimized model of the linear model, also referred to as the 'make, use, dispose of' concept. The linear economy model follows a pattern of creating products and base materials from natural resources, which are then put up for sale. Once a sale has been conducted, the product now shifts ownership and liability; meaning that all waste and risks associated with the product are no longer the seller's issue – the owner can now decide if parts from a product should be recycled, reused, or dumped. The linear model is efficient at overcoming scarcity but abandons the issues around the use of saturated markets – profits arise when companies can sell high volumes of cheap merchandise (Stahel, 2016).

Stahel (2016), and Sorin & Einarsson (2020) argue that the circular economy goal is to optimize each part of a product's life cycle, which can lead to new jobs, technologies, and systems needed at each step of the product/services life cycle. In other words, the circular economy model works as closing loops within the life cycle of all products or services and should be used as a compass for all daily decision-makings within organizations. According to Julião et. al. (2018), the circular economy aims to harmonize the goals of environmental conservation and economic development by considering multiple perspectives, such as production, design, transportation, distribution, consumption, recycling, and disposal. It can be applied to various sectors and/or processes and includes the environmental impacts of each of these. Overall, the different authors have similar ideas to the circular economy concept – and the overall optimization through CE, such as, among others, creating new jobs and technologies, which also align with improving socio-economic and environmental issues associated with the 'take-make-waste' linear model. Sorin and Einarsson (2020), also explain that the concept of continuous improvement (CE) is an integral part of a sustainable development strategy that aims to improve the living conditions of all people. It can be seen as a necessary step toward achieving the goals of the Sustainable Development Goals adopted by the United Nations (Sorin & Einarsson, 2020). Specifically, Goal 12: Responsible Consumption and Production: ".. Develop and implement tools to monitor sustainable development impacts for sustainable tourism which creates jobs, promotes local culture and products..", which aims to develop sustainable consumption and production, that includes initiatives on resource efficiency with the goal to enhance social, economic and environmental results (UNWTO, 2021).

In the tourism and travel industry, 'business as usual' will remain or even intensify environmental and socio-economic challenges due to the global increase of tourism consumers (Sorin & Einarsson, 2020). The circular economy concept has therefore gained an increasing amount of attention in recent years, due to its potential to improve resource use, reduction of greenhouse emissions through production and consumption, and offer competitive advantages for businesses within the travel and tourism industry (Sorin & Einarsson, 2020). Today CE initiatives are increasingly being pursued by NGOs, public, and private companies around the world (Sorin & Einarsson, 2020). The hotel industry has seen an increasing number of environmental initiatives being adopted in recent years. The adaptation of 'green practices' or sustainability in general, as well as the circular economy has gained widespread acceptance within the industry - this can be seen with the emergence of environmentally-friendly hotels (also called 'green hotels') all over the world. Many companies benefit from green management, as it can improve efficiency, reduce waste, and maintain customer loyalty (Julião et. al., 2018).

Moreover, according to Ghisellini, et. al. (2016) circular economy has received an increasing amount of attention around the world. The main reason for this is to overcome the production and consumption model (business-as-usual) and start working towards the closing-the-loop model through CE – that aims to create a better balance between economy, society, and environment. Ghisellini, et. al. (2016) also mentions that CE is in the earlier stages worldwide, and the main development is around recycling rather than reusing (Ghisellini, et. al., 2016). Other researchers, such as Sorin & Sivarajah (2021) agree that CE has received an increasing amount of attention in recent years but argues that limited research has been done within service-dominated industries, such as tourism and hospitality. On the other hand, guides and handbooks have emerged for the tourism, travel, and hospitality industry, specifically on how to adapt to the circular economy concept. The CE360 Alliance "Circular Economy in Travel and Tourism", a report developed by Sorin & Einarsson (2020), offers insight into CE, how to create business opportunities through CE, and rethink business-as-usual. The CIRTOINNO project, "Destination: A circular tourism economy - A handbook for transitioning toward a circular economy within the tourism and hospitality sectors in the South

Baltic Region" developed by Manniche et. al. (2018), an innovative project designed to integrate circular economy elements into services, products, and business models. This can indicate a certain acknowledgment of the benefits of the CE concept and what it can offer the service industry in general and specifically the hotel industry.

Also, WTTC (2021) explains that there has been a growing awareness around climate, environmental, and social issues – from waste management to sustainable destination development, climate, inclusivity, and mental wellbeing across the world. The COVID-19 pandemic has been one of the main pillars for sustainable changes and believes that we should respond to the climate crisis the same way we responded to the COVID-19 pandemic and argues that this is not only because of the ethical grounds but because the 'travelers of tomorrow will demand it' (WTTC, 2021). On a global level, the accommodation sector consumes 5% of water usage and emits 1% of carbon emissions, which accounts for 20% of the tourism industry's total carbon emissions (Sorin & Sivarajah, 2021).

Studies from Sorin & Sivarajah (2021) exploring CE in the hospitality industry in Scandinavia indicate that a circular economy is implementable within this region and that there is a high interest in CE as a value creation for hotel operators (Sorin & Sivarajah, 2021). Other studies from Rodríguez-Antón & Alonso-Almeida (2019) comparing different hotels around the world found that even though some of the biggest hotel chains worldwide were making great efforts to achieve sustainable change, circular economy principles and strategies were not adapted to such a high degree just yet. Arguing that the hotels were sticking to the classic 3Rs Framework (Reduction, Reuse, and Recycle), a strategy that was not considered innovative but more basic. Furthermore, their study indicated that more government involvement was needed to support and encourage CE principles within the industry (Rodríguez-Antón & Alonso-Almeida, 2019).

Notably, the tourism and hospitality industry is seen as a vital player towards the change for a more sustainable future, and many big players are looking to make a significant contribution to the accomplishment of the sustainable development goals (SDGs) whether this is through internal changes within the organization or an external commitment to further initiatives associated to the SDGs (Jones, et. al., 2017).

The United Nations' Sustainable Development Goals was developed in 2015 as a set of guidelines targeting 17 different goals and the 169 associated targets) that need to be handled by the people and planet to bring peace and prosperity. The goals are a call-to-action for everyone, to end poverty and hunger, ensure healthy lives and quality education, ensure clean water and energy, and take urgent action to combat climate change as well as preserve our oceans, and many more, all part of the actions of the official 2030 Agenda for Sustainable Development. In achieving these goals, the United Nations recognized that there needed to be a political and financial dedication from all national governments, as well as businesses especially considering the tourism and hospitality industry, an industry with huge environmental and social impacts on the world (THE 17 GOALS | Sustainable Development, 2021).

According to Jones, et. al. (2017), the tourism and hospitality industry experiences challenges deciding on which of the 17 SDGs they will select and which to prioritize and faces dilemmas whether to map out their existing sustainable strategies onto several SDGs or develop new sustainable strategies to accommodate new SDGs within the operation (Jones, et. al. 2017) — a dilemma that raises questions to a business sustainable decision; are the SDGs used as a commercial benefit or as a commitment to make a real sustainable and positive change? While the SDGs have been used within companies since they first got established in 2015, the integration of environmental practices has been used by tourism businesses for years with either indirect or direct benefits. The two subjects of SDGs and previous adaptation environmental practices could lamentably be seen as having similar indirect and direct benefits. Indirect benefits were seen as gaining an enhanced image and a reputation as being ethical, and meeting customer requirements for environmental quality. The direct measures may lead to operational cost through reduced energy, waste, and the reuse of recycling, as well as increasing competitiveness and profitability, while improving products (Stabler & Goodall, 1997; Bramwell & Alletorp, 2001).

On the other hand, many of the major hotel brands around the world have in recent years been more involved with the SDGs, which creates a positive image of the tourism and hospitality industry, of being seen as some of the major players amongst businesses dedicated to the SDGs (Jones et. al., 2017). According to the United Nations World Tourism Organization (UNWTO): "...Tourism has the potential to contribute, directly or indirectly, to all of the goals.."

arguing that the tourism industry is one of the better industries contributing to all the SDGs, e.g., in addressing goal 14: Life Below Water, UNWTO recognizes that: "Coastal and maritime tourism, tourism's biggest segments, particularly for Small Island Developing States (SIDS), rely on healthy marine ecosystems. Tourism development must be a part of Integrated Coastal Zone Management to help conserve and preserve fragile marine ecosystems and serve as a vehicle to promote a blue economy, in line with Target 14.7: "..by 2030 increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and tourism.." (UNWTO, 2021).

Rasoolimanesh, et. al., (2020) review the importance of the SDGs and argue that the SDGs should be used as a framework for the promotion and development of sustainable tourism. In addition, it is stated that the tourism industry has the potential to contribute to all 17 SDGs either directly or indirectly and is therefore considered an important player in the pursuit of the SDGs. Furthermore, Rasoolimanesh, et. al. (2020) discusses the importance and effectiveness of governance and states that one of the hallmarks of sustainable development is access to decision making. To create any sustainable change within economic, sociocultural, and environmental impacts rules and policy evaluation and monitoring practices need to be implemented. Even though there has been an increased sustainable interest from governance, it is rarely discussed, and they argue that government should be treated as the main pillar of sustainable development (Rasoolimanesh, et. al., 2020). Timmermands (2019), also suggests that the 2030 Agenda and the SDGs are "all about governance". It is also stated that to feel possession of sustainable tourism strategies and make an impact, the industry, community, and government need to work together towards decision-making and planning for developing relevant strategies (Kristjánsdóttir, et. al., 2018).

Sustainable certificates are a concept in which businesses, products, and services must be provided or produced in accordance with predetermined standards. The predetermined standards of certifications are usually assessed by a third party, which can be related to social, ethical, and/or environmental affairs. Sustainable certificates, or labels, provide assurance that a product or organization can demonstrate a certain level of commitment and performance within specific areas of sustainability (Mori Junior et. al., 2016). A sustainable certificate is normally a voluntary process for an organization and is accompanied by a

verification process to evaluate the level of commitment within sustainable areas that follows a certain standard (Sustainability Standards & Certifications | Fairtrade, Organic & Rainforest Alliance, 2021).

Sustainable certificates, labels, schemes, or standards; a concept with many names referring to the same overall idea. A phrase that is commonly used to communicate business' sustainable initiatives in order to generate a positive image to the community, which can lead to financial or social gain (Font, et. al., 2016). According to Otto, et. al., (2018) incorporating sustainable certificates into a hotel business delivers solid, accurate, and real information around the environmental impacts of the production and service activities within a hotel, and the customer. This provides certain challenges and opportunities, one thing to notice is that more environmental requirements require an increased service towards customers. Furthermore, it is seen that environmental issues can bring a competitive advantage, such as the implementation of new resource-saving technologies which in time can minimize costs and increase profits (Otto, et. al., 2018).

Other researchers, such as Young, et. al., (2013), states that through sustainable certificates, organizations can bring more sustainable awareness to consumers, other stakeholders, and the government. Sustainable certificates allow for more knowledge between consumers and purchasers and therefore give them a choice to shift towards more sustainable awareness products and providers. Furthermore, this creates a certain pressure among businesses and the government to improve their environmental and social performance through the development of sustainable certificates (Mori Junior, et. al., 2016). On the other hand, obtaining a sustainable certificate can be costly, especially for smaller operators who is lacking resources and capabilities to obtain certificates - this can create certain market barriers for small providers in a developing market, where sustainability is shifting from being a choice, and more towards becoming a requirement (Mori Junior, et. al., 2016).

Moreover, It has been argued by Stark & Levin (2011) that some certifications lack accountability and transparency, e.g. in cases where violations were met within the mining sector it did not carry out any consequences for the companies, but instead, they were safeguarded because of certifications using a vague language leading to loopholes, misleading stakeholders by the use of sustainable certificates and leading to greenwashing, and the lack of quality within the development of sustainable reports (Mori Junior, et. al., 2016). "Green-

washing", is a concept which identifies sustainable communication for businesses, products, and services without undergoing any or sustainable initiatives that are stated (Delmas & Burbano, 2011). The term greenwashing emerged back in 1986 within New York environmentalist Jay Westervelt's essay regarding the hotel industry practice of placing cards in hotel rooms to promote reusing the towels to save the environment (Rahman, et. al., 2015). Greenwashing has over the years been a continuous problem within many industries, it is especially seen in the lodging industry. Rahman, et. al. (2015) studies showed that hidden motives of hotels' environmental initiatives suggested consumer scepticism. Due to increased media attention to the greenwashing practices that emerged in the lodging industry which have resulted in continuous surveillance around the trustworthiness of their green practices. Subsequently, this has resulted in a negative effect on hotels, with hotels needing to be more careful about their green initiatives and how they market these projects (Rahman, et. al., 2015).

As Tasci (2017) explains, the lack of awareness and knowledge can resonate as an obstacle for the move towards a sustainable hospitality industry and for businesses to adopt sustainable practices. However, it is good to see that in the last period, there has been an increase in the demand for sustainable actions from consumers (Tasci, 2017). As Tasci (2017) argues, the way to implement sustainability in the businesses can be, however, complicated in matters of increased expenses as well as a strong motivation to do so as a business. Such motivation can be seen as the consumers' demand for a certain product or service in a more sustainable way and therefore, supporting their choice of product or service in that way (Smerecnik & Andersen, 2011). The crucial point for the businesses is to precisely understand the various demands of their consumers when choosing the hospitality services and products (Tasci, 2017) and not end up as a mismatch of the sustainable implementations (Perez-Pienda, et. al., 2017). According to the research done by Firth & Hing (1999) on the willingness of consumers to choose environmentally friendly accommodation, one-quarter of their respondents brought up the fact that they would be interested to book environmentally friendly accommodation if they promoted sustainability features through their marketing communication. One way to do so is possible through the certifications and labels available for the hospitality industry. However, there has been a lot of discussion on whether and how important the certifications have in this matter. As Font (2002) explains, there are many

certifications and labels these days, which can be translated in different ways in different businesses. These can make it confusing for the consumers whether their sustainable choices truly make a difference (Font, 2002). Therefore, as Font (2002) elaborates, the consumers should in this case be searching for the labels they would continue to see repeatedly to ensure the trustworthiness of the certifications of the accommodation of their choices, and at the same time accommodations should aim for the certifications which are well-recognized to attract the consumers which demand it.

#### 4. Business Cases Analysis

A business case analysis will be developed for all three interviewed hotels in Denmark. A comparative analysis of each individual hotel will be presented to give a detailed description of the hotel, their individual work related to sustainability, how these correlates with the UNs Sustainable Development Goals, as well as the sustainable certifications and awards the hotel have received, and how circular economy is incorporated into specific sustainable initiatives. Moreover, we will utilize direct quotes from all interviewees within the three different hotels to gain an internal perception and knowledge of industry trends, customers, and government regulations, and others, to gain a better understanding of the industry as they see it. Finally, we will develop a comparison of the three hotels to gain knowledge about the sustainable development within the Danish hotel industry, and how these three actors are operating within a developing market. On top of that, we will critically question and debate upon claims which were supported or, on the other hand, refuted by external stakeholders from the industry of sustainability and those that work in close collaborations with the hotels.

#### 4.1. Case Analysis 1: SINATUR HOTEL & CONFERENCE

Sinatur Hotels operates six hotels around Denmark and was founded on three core values in 2007: 'Nature, Gastronomy & Presence'. The hotel chain offers a unique, memorable, and sustainable experience with a focus to include and protect nearby nature for businesses, organizations, and private guests. Sinatur offers a natural feel location at all their hotels either near the water or close to the forests, as well as organic and locally sourced ingredients for a gastronomic experience (Sinatur, About us, 2021).

"I made a new strategy, which we will launch soon, where we will call ourselves a sustainable company, working within the hotel industry, instead of calling ourselves a sustainable hotel. I would like people from outside to consider us a sustainable company, who is doing this as a major thing, the top-of-mind thing."

#### Nielsen, Sinatur, Interview, 2021

Sinatur, a hotel chain considering them one of the main actors towards sustainable development in Denmark is determined to make a real change on the hotel industry's environmental impact and is committed to the 17 SDGs (Sinatur, Hvem er vi, 2021). The SDGs are of great importance to Sinatur social ambitions and their own sustainability goals for 2030, as seen below:

- We want to be recognized as an inspiring, diverse, and inclusive workplace with space for everyone, and which our employees love
- We only purchase produce from Danish suppliers, and all products are certified and from sustainable businesses
- All our hotels will have their own food production
- We want to be Co<sub>2</sub> positive, water neutral, waste-free everything will be reused or recycled
- We want to be recognized as 'Best for the world'
- We involve our guests in our work with sustainability, and provide knowledge about the importance of nature, and invite the outside world to participate and invest in new sustainable solutions (Sinatur arbejder med FN's 17 verdensmål, 2021)

#### 4.1.1. Responsible Consumption and Production

In 2013 Sinatur received the 'Organic Food Label' in bronze (30-60%) (Om spisemærket, 2021) as one of the first hotel chains in Denmark. In 2019, Sinatur received the label in Silver (60-90%) (Sinatur, Vores økologiske profil, 2021). According to CEO of Sinatur Frederiksdal, Claus Nielsen: "In our vision, it is written, that we don't use pineapples, watermelon, oranges, and such fruits, but we don't operate with this exotic fruit any time of the year." (Nielsen, Sinatur, Interview, 2021) Furthermore, Sinatur will never offer organic carrots from e.g., Spain if a local supplier can offer the same product in a sustainable produced way that will not burden the environment or release a high amount of Co2 emissions. Sinatur is determined to offer organic food, but it is not prioritized over sustainability and will do everything to avoid the unnecessary import of produce (Sinatur, Vores økologiske profil, 2021).

"..it is between 20 and 30 % more expensive to operate with organic food compared to conventional food. When we had this label back in 2013, we were aware of this as well. So, we said, 'OK, we must spend, let's say, 25% more in the way we are operating' – but how can we save them in another place, and it was a turnaround for all kitchens saying, 'OK, then we have to stop buying bread from the local bakery, and we will make it ourselves..."

#### Nielsen, Sinatur, Interview, 2021

Claus (2021) also mentions that since they started focussing on organic food, the costs increased but that they are willing to invest more into organic food and can save elsewhere by changing their operation within the supply chain. This also included portioning food into small glasses in the buffet, which turned out to have a major impact on food waste within Sinatur - going from 4 tons of food waste to 1 ton, as well as lowering costs (Nielsen, Sinatur Hotels, Interview, 2021). After the Covid-19 lockdown, Sinatur Hotels made further changes within their produce consumption, including offering more vegetables and removing all kinds of red meat from their conferences, with an option to request this, if necessary.

".. I'll tell you one little anecdote: "3 years ago we tried to make a meat-free day, at all six hotels, it was a disaster to be honest – nobody wanted this, except for a few vegans and other people. The biggest success was actually in all the meat the people bought and told us we don't want this". We learn from that, that it is very important to be aware that we are not put on the world to save the world.."

#### Nielsen, Sinatur, Interview, 2021

An initiative that was developed further after making radical changes towards the removal of red meat; Claus Nielsen mentions that Sinatur Hotels is still a hotel with a focus to offer a great experience for their guests, and these initiatives are constantly in the process to convey better alternatives rather than eliminating options completely. Today red meat is still a huge issue due to the high Co2 emissions, and Sinatur offers guests to purchase red meat for an additional cost of 25 DKK, per guest – this money is then donated to the 'Plant a Tree Organization', to compensate for the Co2 emissions from red meat that is sold in the hotel. According to Claus Nielsen, it shows that around 25 % of their guests are still asking for red meat but are happy to pay additional (Nielsen, Sinatur Hotels, Interview, 2021).

"...I believe in this, and I think it is 70 % - probably more, who's saying that they would like to try fish or duck instead, and only 25 % are saying that they would still like red meat, but they would happily pay that 25 kr. to get that. But we still know that we are keeping track of our ambitions."

#### Nielsen, Sinatur, Interview, 2021

Finally, Sinatur has made great commitments to circular economy initiatives through corporations with external partners and new entrepreneurs. One example, "the good story" that Claus brought up, was about their work with three Colombian entrepreneurs who started a company using the oil from coffee waste and using it within moisturizer, shampoo, and conditioner – now all the coffee waste from Sinatur Hotels is turned into ingredients to make sanitizing products that are used within all Sinatur's hotels. When the coffee waste has been drained from oil, Sinatur uses the leftovers as flowers to incorporate within their bread, etc. Sinatur Hotels decided to make a charity dinner for these three entrepreneurs, where all the money went to their business (Nielsen, Sinatur Hotels, Interview, 2021).

#### **4.1.2.** Affordable and Clean Energy – CO<sub>2</sub> Emissions:

In 2015 Sinatur Hotel had, within all six hotels, a total of 1,026 deliveries within a year, in 2018, that number had dropped to 577, or a decrease of 45%, even though the revenue increased from 151 to 163 million DKK in the same period. This is a deduction of 11.6-tons Co<sub>2</sub> emissions as well as a financial gain, says CEO of Storebælt Sinatur Hotel & Conference,

Jan Gimstrup Larsen (Sinatur Hotel & Konference, 2019). Jan Larsen also mentions that the next project is limiting the packaging they receive which cannot be recycled. In cooperation with their suppliers, they have already replaced flamingo boxes with compostable material for their fish deliveries (Sinatur Hotel & Konference, 2019). Likewise, Sinatur is currently placed in the top 3 for garbage recycling among Danish businesses according to Marius Pedersen A/S (2021) and is at this time recycling 73% of their garbage, with an ambition to reach 80% by 2025 (Affaldssortering | Sinatur i dansk top 3 | SINATUR, 2021). In addition, their waste (garbage) management includes collecting all broken plates, coffee cups, plastic products, which is used for further production within infrastructure, glass, and plastic production. This also includes purchasing the FALK chair for most of their conference centers; a product made completely from waste materials from recycled plastic, bottles, and steel (Affaldssortering | Sinatur i dansk top 3 | SINATUR, 2021).

"..We also have this GHG certificate saying how much greenhouse gasses are we leading out, and we found out that it was mainly in the production of the kitchen – it isn't the light bulbs, it isn't the flushing of the toilets – 90 % of our carbon footprint is the production and the way that people are traveling to our hotels, both employees and guests.."

Nielsen, Sinatur, Interview, 2021

#### **GHG Protocol Report of 2019**

Sinatur's 2019 climate report is based on the principles of the GHG protocol where operational control is applied in connection with the calculation of CO2 emissions. The report is divided into three scopes of emissions, with scope 3 emissions being the main contributor of Co2-emissions, especially within category 1: Purchased goods and services (Appendix 11).

- Scope 1 emissions include diesel for transport in vans, n-gas for heating buildings, emissions from refrigerants in refrigerators and freezers, and from oil to oil-fired boilers.
- Scope 2 emissions include consumption of electricity and district heating.
- Scope 3 emissions include: Purchased goods and services, capital goods, fuel, and energy-related activities, upstream transportation and distribution, waste generated operations, business travel, employee commuting, and upstream leased assets

Purchasing is a significant part of Sinatur's CO2e emissions and accounts for more than 80% of the total CO2e emissions. The total Co2-emissions from this category amount to 5.726 tons Co2-emissions of the total 6.602 tons within scope 3.

Scope 1 Emissions	146 tons CO <sub>2</sub> e
Scope 2 Emissions	500 tons CO <sub>2</sub> e
Scope 3 Emissions	6.602 tons CO <sub>2</sub> e
Scope 3 Upstream	Emissioner i Sinaturs værdikæde 2019
Purchased goods and services	5.726 tons CO₂e
2. Capital goods	445 tons CO <sub>2</sub> e
3. Fuel and energy related activities	18 tons CO <sub>2</sub> e
4. Upstream transportation and distribution	lkke relevant
5. Waste generated in operations	8 tons CO <sub>2</sub> e
6. Business travel	34 tons CO <sub>2</sub> e
7. Employee commuting	371 tons CO <sub>2</sub> e
8. Upstream leased assets	lkke relevant

(Regnskabspraksis Baggrund for beregning Klimaregnskab 2019, Sinatur Hotels, 2020, Appendix 11)

In 2020, Sinatur Hotels could through the GHG report document that they were the first carbon-neutral hotel chain in Denmark. The GHG system accounts for a business's total CO<sub>2</sub> emission and will be used as a management tool for Sinatur to become CO<sub>2</sub> positive before 2030. The report also showed that the highest CO<sub>2</sub> emission was indirectly generated from Sinatur Hotel's suppliers (GreenKey, Sinatur Hotel & Konference, 2020). According to Claus Nielsen (2020), their passion is to inspire as many as possible to work with them, to create a more sustainable world. He also mentions that currently 85% of their produce and beverages come from Danish suppliers – and the household plastics that are recycled, are manufactured into furniture (GreenKey, Sinatur Hotel & Konference, 2020). In addition, CEO of Haraldskær Sinatur Hotel & Konference, Kari Brandsgård (2020) states that they decided to purchase offset for the remaining 5,369 tonnes through the UN program to become carbon neutral in 2020 – a project in India, Delhi who works on recycling garbage into green energy (GreenKey, Sinatur Hotel & Konference, 2020).

A priority objective for Sinatur is to maintain affordable and clean energy and minimize CO<sub>2</sub> emissions. Consequently, Sinatur has made several major energy-saving changes:

- January 2019, Sinatur switched to certified wind turbine power within all six hotels, an initiative that saves the climate 1,100 tonnes of CO<sub>2</sub> annually - more costly but also more sustainable.
- Storebælt Sinatur Hotel & Conference invested in LED-lighting, savings within the hotel that amount to 105,000 kg of CO<sub>2</sub>, and a cost-saving of 200,000 DKK within a five-year period. Including having their own wind turbine, solar-powered facilities, and stoker and pellet furnaces.
- Installment of CTS system to manage and monitor their energy consumption –
  meaning that lightning will only be on when the need is there (Mere grøn energi |
  Reducering af CO2-udslip | SINATUR, 2021).
- In 2016, Sinatur installed power stations for electrical cars within all six hotels free
  of use for all guests during their stay and powered by the hotel's own solar and wind
  turbines (Kursuslex, 2016).

Additional initiatives adopted by Sinatur is their cooperation with Den Danske Naturfond - "The Danish Nature Fund". For every meeting or conference held within one of Sinatur's facilities, they will purchase one  $m_2$  of land, a contribution to restoring natural areas and securing endangered animals and plants in Denmark (Sinatur Hotel & Konference og Den Danske Naturfond, 2021). This goes hand in hand with Sinatur's concept 'How would nature run hotels?', a phrase that is incorporated into every decision made at Sinatur – when purchasing new chairs, renovating, etc. (Nielsen, Sinatur Hotels, Interview, 2021).

#### 4.1.3. Sinatur Hotels and UNs Sustainable Development Goals

The SDGs work as a guideline for Sinatur hotel and their overall operation towards achieving their 2030 goals. This includes several areas of operation with the SDG: 4 Quality Education, 8 Decent Work and Economic Growth, and 10 Reduced Inequalities (THE 17 GOALS | SDG, 2021). This means overall respect within the working place and the people with a focus on education opportunities, both professionally and humanly for all involved, as well as taking social responsibility for future generations and the people who need extra care (Sinatur arbejder med FN's 17 verdensmål, 2021).

Moreover, SDGs: 12 responsible consumption and production, 14 Life Below Water, and 15 Life on Land (THE 17 GOALS | SDG, 2021). Sinatur takes great responsibility within the entire

supply chain, this includes purchasing organic produce from local Danish suppliers, eliminating food waste, and having a high standard for their overall recycling rate within the entire organization. This includes a determination to make a change in the world, by focussing on educating guests, the industry, suppliers, and the local community about sustainable projects that make a change in Denmark and investing in sustainable solutions (Sinatur arbejder med FN's 17 verdensmål, 2021)

In addition, the additional SDGs: 6 Clean Water and 7 Affordable and Clean Energy (THE 17 GOALS | SDG, 2021), with a prospect to become waste-free within all 6 hotels, Sinatur reuse and recycle everything that is possible through close collaborations with all external partners and suppliers, as well as investing in renewable energy sources with the goal to produce more energy than consumed (Sinatur arbejder med FN's 17 verdensmål, 2021).

Lastly, Sinatur goes beyond the SDGs that are linked directly to the industry in Denmark and is determined to make a change everywhere, this involves SDGs: 1 No Poverty, 2 Zero Hunger, and 3 Good Health and Wellbeing (THE 17 GOALS | SDG, 2021). Sinatur Hotels believe that being sustainable is not just associated with the business and the industry but helping others. Sinatur is therefore involved with NGOs such as, 'Soroptimist International project 'School food in Burkina Faso'; helping children get two healthy meals a day, and 'Little Big Help' and their work with vulnerable children and women in India; supporting the Danish NGO to get the basic rights through education, health check and daily meals (Sinatur arbejder med FN's 17 verdensmål, 2021).

#### 4.1.4. Certifications and Awards

"..We would like to be first movers when it comes to sustainability, and when we got the organic label in 2013, honestly no one was mentioning anything about it, and there was no kind of value to the quests, probably more the opposite.."

Nielsen, Sinatur Hotels, Interview, 2021

As mentioned previously, Sinatur was one of the first hotel chains to receive the 'organic food label' in Silver, back in 2013. Which back then did not make any real change to Sinatur, it was mostly about the idea of becoming greener, offering organic food, and the start of their

sustainable journey (Nielsen, Sinatur Hotels, Interview, 2021). In 2019 Sinatur received Kursuslex the 'Bedste Madconcept 2019' (Best Food Concept of 2019), the award was granted to Sinatur Hotels due to their focus on sustainable gastronomy and their priority to local and organic produce (Sinaturs madkoncept, 2021). Moreover, Sinatur was the first hotel chain in Denmark to get certified by Green Key, and now Sinatur has become the first B Corp certified hotel chain in the Nordics.

"..For us, the B Corp certification is a natural extension of all the other work we do to become more sustainable. The B Corp certification is the only one that not only looks at products or services, but at the entire company, and which have documentation that the certified companies live up to the highest standards in environmental and social matters and are transparent in their dealings.."

#### Nielsen, Sinatur, Interview, 2021

The B Corp certification has been a natural step for Sinatur Hotels due to its commitment to sustainability and its overall business strategy. The certification is a lengthy process, which needs a 360-degree overview of the entire business model – all actions need to be accounted for, and the business will then receive a range of points surrounded by management, environmental impact, and work environment, suppliers, etc., the number of points will determine whether the business archives the certification. According to Sinatur, the certification is a stamp of approval, and for 'Companies that do not compete to be the best in the world, but the best for the world' (Green-Key, Press release, 11.11.2020, & Sinatur interview, p. 3, 2021).

In 2020 Sinatur Hotel & Conference was awarded the European Business Award for the environment, specifically within Environmental Management for implementing a very comprehensive sustainability strategy that includes everything from certified climate accounting (GHG) for the entire business value chain, use of solar panels, involvement of sustainability ambassadors via the 'Green Signature app' and targeting work to customers and other networks, etc. The award is granted every second year within three categories. In 2020, there will be a special focus on companies that particularly support the UN's SDGs (Greenkey, Sinatur Hotel & Konference vinder EU's Miljøpris 2020, 2021).

## 4.2. Case Analysis 2: COMWELL HOTELS

Comwell is a hotel chain with more than 50 years of experience. The chain operates 16 hotels in Denmark and two in Sweden. The overall concept and what Comwell is known for is the good host, service, and professional staff. The business operates within four different areas: meeting and conferences, business, and private stays, and spa stays (About Comwell, 2021). The real change towards sustainable development within Comwell first started at the beginning of 2015, when Comwell recognized the environmental impact originating from the hotel industry (Verheij, Comwell Hotels, Interview, 2021).

Sustainability has officially been one of the main business pillars of the Comwell organization since 2016 and is considered an important turning point for day-to-day operations within all their hotels, and the supply chain. Simon Verheij, PR & Communications Specialist at Comwell (2021), explains that meetings and conferences, and sustainability are the main business pillars within Comwell – their goal is to be the market leader within the meeting/conference in Denmark, as well as being the Danes preferred sustainable hotel chain (Verheij, Comwell Hotels, Interview, 2021). The business is built around sustainability, related to the environmental impact within the organization, and the CSR part which is corresponding to the UNs Sustainable Development Goals (SDGs) – this provides very clear procedures in accordance with the SDGs (Verheij, Comwell Hotels, Interview, 2021). The SDGs have been used to structure the business since 2020 and continue to this day. Comwell strives to cover most of the SDGs and is committed to ten SDGs, however, points out that the main difference can be met within SDGs 4 (Quality Education), 7 (Affordable and Clean Energy), 8 (Decent Work and Economic Growth), and 12 (Responsible Consumption and Production), (Comwell Årsrapport, p. 24-25, 2020). Overall, Comwell is based on three important parameters (Comwell Årsrapport, p. 24-25, 2020):

- Taking responsibility for the hotels' resource consumption and recycling of consumed materials.
- Focuses on creating balance and taking both people and the environment into account every day.
- Acquires new knowledge and new competencies to achieve sustainable transition
   without compromising on the good experience (Comwell Årsrapport, p. 24-25, 2020)

### 4.2.1. Responsible Consumption and Production

"..right now, it's a lot of food waste that we have started looking into just before Corona how to really measure and weigh everything at all our hotels – along with four other Danish
hotel chains to benchmark and learn from one another. It becomes a sport, and the internal
competition kicks in, and we are saying: "They will not win with less food waste up in
Aalborg!" – it's a very healthy culture and we can learn from our competitors within the
business, and sometimes say: "How can it be that Sinatur Hotels in Frederiksdal are so good
at that – perhaps we should hear how they are doing so good with their food waste?" I
believe it is healthy and the right way.."

#### Verheij, Comwell, Interview, 2021

In the areas of sustainability, the SDGs, and circular economy, Cromwell aims to reduce its environmental impact through several initiatives within the organization. The change started with the low-hanging fruits and the areas which could be measured instantly – in the kitchen. This meant utilizing all the broccoli and keeping the stem too, replacing mountains of food at the buffet with portion-sized glass containers, and offering more vegetables and less, but better meat.

"..One of the first and easiest things to start with – where we could track immediate measurements, as well as encourage the employees – was of course in the kitchen. It was to look at what kind of ingredients we use? Do we use all the raw materials? E.g., When we have broccoli, do we throw out the stem, like we used to, or could we use it for something else? How are we serving food? Should it be large buffets of food, or could we create small portion-sized dishes? If the guest wanted to, they could take two glasses instead of choosing from a mountain of food.."

# Verheij, Comwell, Interview, 2021

Today, these initiatives are still in process, and Comwell is currently in cooperation with DAKA Refood, the Refood Label, and have now reduced food waste on warm dished in the morning by 50%, just by applying dishes in portions, as well as offering a cooking book with recipes from Comwell's 16 kitchens on how to utilize raw materials and leftovers (Juul & Jensen, 2021). In addition, Comwell has been awarded the Organic Cuisine Label in bronze at all

hotels, Comwell bake, pickle, and produce more food from scratch, is collaborating with the Hotel and Restaurant School, and has implemented 'Comwell Food Coordinator training' to reduce food waste (Comwell Care - Sustainable Hotel Chain | Comwell, 2021).

"..We would rather serve less but better meat, and much more vegetables – and all our guests want to be a part of this journey. We always have fish, vegetarian dishes, plant-based options, that we can feel come in much more. So of course, we will dial those things up – because there is a need for it.."

## Verheij, Comwell, Interview, 2021

Simon Verheij (2021) also mentions that Comwell prioritizes serving less, but better meat and much more vegetables, including plant-based options — which is being more present in the buffet and restaurant daily and is an increasing demand from the guests (Verheij, Comwell Hotels, Interview, 2021). Apart from food waste being one of the main initiatives that Comwell is working on, organic food is an important project too. "We only used 5% organic produce in 2017, today we are close to almost 50%. It was just three months after the transition was put in place...", says F&B-manager Rasmus Rasmussen, a transition that resulted in Comwell receiving the organic label (Det Økologiske Spisemærke) in bronze (30-60% organic food) within all Comwell's hotel, as well as receiving "The Yearly Organic-Award" (Årets Øko-pris) back in 2017 (Flere og flere vælger en grøn samarbejdspartner | Comwell, 2021).

"..We looked at whether we should be organic, not because being organic in itself needs to be sustainable - not at all. And that's very important to emphasize, because we'll never ever buy an organic kiwi from New Zealand, and we don't do this because it has been transported so far that it makes no sense. Just because something is organic does not mean that it is sustainable. But we were looking into whether we could find suppliers closer to us – so that the transportation time was less, we knew the supplier, and we supported the local.."

## Verheij, Comwell, Interview, 2021

According to Simon Verheij, offering organic food does not necessarily mean that you are being sustainable, but that Comwell still has sustainability aligned within their organic food, which means that Comwell would never purchase an organic Kiwi from New Zealand e.g., due

to transportation, instead, Comwell investigates the possibilities of purchasing food from local suppliers, which result in fewer CO2-emissions, and the support of local suppliers (Verheij, Comwell Hotels, Interview, 2021). Furthermore, Simon Verheij (2021) mentions that the consumption of CO2-emission within the whole hotel chain is also being prioritized more: "This year we will present our annual report, where we will include our CO2-emission, and we might as well adjust to that. It is not because we have been asked to include this, but we will, and we know it. We might as well start, so we can learn how to work with it..." (Comwell Hotels, Interview, 2021). In addition, switching to organic food comes with its increased expenses, as Simon mentions:

"..With organic food, we quickly found out that this could increase our expenses by 20% e.g., but on the other hand, we learned to handle our products way better. That means that we now use the whole produce, and when we use it all, we can save 20% - in that way we can afford it. So, every time we purchase organic food, we look at where we can save it within the chain... and usually we find it pretty quickly.."

## Verheij, Comwell, Interview, 2021

According to Simon Verheij (2021) waste management is one of Comwell's main priorities today, firstly because this is linked to food waste, and this is where the business can save a lot. A large percentage of the food wastage generated from all 16 hotels is collected once a week and shipped to DAKA Refood in Jutland, where it is turned into fertilizers and biogas (Verheij, Comwell Hotels, Interview, 2021). In addition, every quarter a full report of the waste collected is provided, including the amount of trash and wastage divided into different categories, and how much waste is reused. In 2020, the average amount of waste being reused through their partners was 28% compared to 25.1% the year before. In the same period, the total amount of waste has declined from 920,000 kg to 139,00 kg (Comwell Årsrapport, p. 32, 2020).

A similar circular economy strategy can be seen with the chain's coffee wastage. Comwell purchases their coffee from a large community in Mexico, who invest in education opportunities for the locals, and they make sure to financially support the locals schooling – the coffee wastage is then used in cakes and lotions, etc, as well as fertilizers for their herb gardens at Comwell Hotels (Comwell Hotels, Interview, 2021). A similar thing is seen with

Comwell's use of sheets and bed covers; once these have been used up, they are manufactured into t-shirts and aprons for the kitchen staff. These projects have become important to Comwell, and it all comes down to the corporation with their partners: "The more knowledge our partners gain, the more we want to participate in new initiatives" (Verheij, Comwell Hotels, Interview, 2021) – the most recent project that Comwell has started is within the newly developed hotel 'Comwell Portside' in Nordhavn. The project was started in cooperation with their beer and water supplier, Royal Unibrew, where they installed 400 kilometers of tubes within the hotel to replace bottles with water/beer/soda dispensers – this has made the hotel a bottle-less hotel - to an extent. The project was developed to minimize the impact on employees when carrying crates of bottles, as well as removing the component of depositing bottles, and the entire cleaning process within. Simon Verheij states that they are currently working on installing this within all their hotels (Comwell Hotels, Interview, 2021).

Another sustainable example is Comwell's cooperation with 'Prima Frugt', which has chosen to drop the flamingo boxes, and now fruit and vegetables are delivered in recyclable cardboard and paper inlays. This means that Comwell will no longer use the 100,000 flamingo boxes, including 37,440 plastic inlays, and therefore save around one ton of plastic each year (Comwell, Green-Key, 2020).

#### 4.2.2. Affordable and Clean Energy

For several years, Comwell has had a strong focus on optimizing its energy consumption. This happened by switching to low-energy sources, optimizing heat consumption, and reducing water consumption. Over the last three years, Comwell has managed to reduce energy consumption by 10%, heating consumption by 8%, and water consumption by 15% (Thinking about sustainability and recycling is our strategy | Comwell, 2021). Looking forward, the goal is to reduce these consumptions by 2% each year. Registration and follow-up on energy consumption are carried out through an EMS system that is integrated within all hotels. In addition, Comwell is a consumer of 100% green electricity produced by environmentally certified Danish wind turbines (Thinking about sustainability and recycling is our strategy | Comwell, 2021).

Simon Verheij (2021) states that there have been many small initiatives to cover design, operations, and technologies to reduce energy, water, and heating within hotels. This includes the use of efficient lighting and heating controls, installing of water-efficient fixtures and appliances, and rainwater storage on the roof – used for the newly purchased dishwashers that use recycled water for cleaning (Verheij, Comwell Hotels, Interview, 2021).

### 4.2.3. Comwell Hotels and UNs Sustainable Development Goals

#### **Quality Education**

".. You do this by educating all the time, so they are up to date with the latest ways and technologies and what can be worked on. Give them that responsibility, so you have the passion for the work.."

## Verheij, Comwell, Interview, 2021

In this quote, Simon Verheij (2021) is referring to the education and development of the employees working with sustainable initiatives within the organization, where he states that employees are constantly educated within this area, due to the constant change within this 'fairly' new and developing market within sustainability. By maintaining a close relationship with suppliers and partners, Comwell and its employees can be up to date with new technologies linked to a greener development – technologies that Comwell does not necessarily have the means to develop, as the example with Royal Unibrew (Verheij, Comwell, Interview, 2021).

In addition, Comwell is very initiated within the education and development of its employees and sees their employees as the strongest resources within the organization. Through Comwell College yearly courses are offered within the professionalism, sustainability, conflict management, law courses, and Cardiopulmonary Resuscitation (CPR) courses (Comwell Årsrapport, p. 26, 2021). Furthermore, Comwell offers longer educational programs, such as baristas and food coordinators, etc. as well as all managers need to participate in an educational program within management in cooperation with external partners — this will provide all managers with an AP (academic profession) degree in management and leadership. In 2020, Comwell had 49 managers who completed modules I and II within management and leadership; this continued in 2021, where Comwell planned to execute

module III, and it was expected that two teams would finalize this module (Comwell Årsrapport, p. 26, 2021).

The complete educational program for managers and other employees was developed back in 2018 to attract and maintain the industry's best employees, as well as continuously educate personnel within the sustainable development of the organization. In 2020, this program was developed further and now all full-time employees will undergo a 1.5-day introduction program within 'The core of Comwell'. Employees will gain in-depth knowledge around Comwell's concepts and specifically within areas of sustainability, service, and hosting. In 2021, Comwell decided to further the educational program to 2 days — with the second day purely associated with sustainability; this includes a complete overview of Comwell's sustainable strategy and goals, supplier collaborations, how to work with the different elements within the supply chain, and the employees own role (Comwell Årsrapport, p. 26, 2021).

#### Decent Work and Economic Growth

Comwell works continuously to ensure a good working environment for all employees. This is done by focusing on both the physical and mental work environment and by creating the framework for a spacious workplace. This is supported by APV 'workplace assessments' which are conducted at least every 3rd year, as well as Comwell being up to date with relevant legislation, including The Working Environment Act, the Equal Treatment Act, and applicable collective agreements. Furthermore, Comwell has dedicated itself to do an extra effort to society to take a social responsibility within integration, disability, and other societal challenges. This means that Comwell has had 76 people participating in a school-, or business internship, including 31 people in job training, overall, this has resulted in employment for four people, and 19 people are currently offered flexible employment (Comwell Årsrapport, p. 28-29, 2020).

In 2020, Comwell also employed 135 trainees as a part of their educational program. As well as launching a new educational initiative for chef students, created to provide professional and technical means operating concurrently with their student education. This offers students a three-year student education where they will be part of several courses and company visits. A similar initiative was developed for waiters, receptionists, and spa students in 2020, but due to Covid-19, it was not possible to implement - Comwell planned to start this program up

again in 2021. This has been one of the big focus areas in recent years and will continue within Comwell, the idea is to generate more awareness around the career opportunities within the industry, due to the external challenges of attracting younger people to the hotel industry (Comwell Årsrapport, p. 29, 2020).

#### 4.2.4. Certificates and Awards

"..And GreenKey is a tourism certificate, where you are subjected to unannounced audits, and one must be able to answer and present – and it is not just food, it can also be e.g., which pens are you using? Are you throwing these out? Could you use pencils instead? How much paper do you print? Could it be done differently? You are heard if you're actually trying to make a difference, and not just say "yes, yes, we have bought some recycled paper.."

#### Verheij, Comwell, Interview, 2021

Comwell has over the years also required certain certificates and awards for change towards sustainability. All Comwell's Danish hotels have the international GreenKey certification – an eco-label scheme considered the leading standard for excellence in the field of environmental responsibility and sustainable operation within the tourism industry (GreenKey, Global, 2021). Overall, this means that Comwell must follow certain standards within environmental management, energy, waste, cleaning, food and beverages, indoor environment, and CSR. To be up to date with current political policies and restrictions as well as being informed about the latest knowledge within the industry, Comwell is part of the Danish Chamber of Commerce's (Dansk Erhvery) CSR network, as well as the Resource network (Comwell, Årsrapport, p. 31, 2021).

Comwell also joined the DAKA ReFood label back in 2014 (Daka Refood, Cases, 2021). The ReFood label is a trust-based scheme for businesses and organizations within the food, and service industry, and is built around the principle of reducing food waste and increasing recycling within the sector. Being a member of this scheme means that an organization is required to choose three food-wasting initiatives of REFOODs suggestions, including having a policy for recycling food waste (Refood label, 2021). Comwell Hotels are currently committed to the following initiatives (Comwell, Årsrapport, p. 31, 2021):

Create targets for food waste reduction

- Small plates in the buffet
- Registration and monitoring food waste
- Accepts training around food waste
- Focusses on seasonal produce
- Arrange internal competitions among employees to avoid food waste

Within one-year Daka Refood was able to recycle food waste and used oil from Comwell to create 674 tons of nutrition for carrots, offering 14,000 days of heat in an average household, 204,000 km in a car running on biodiesel, and save 295 tons of CO2 (Daka Refood, 2021). In addition, DAKA Refood prepares quarterly statistics on the amount of food waste that has been collected from Comwell's hotels, as well as an overview of the environmental impacts (Comwell Årsrapport, p. 31, 2021).

"..Momondo is a commercial business, which customers use to find travels and stays – in that way, you can say, that we can purely use this for marketing purposes but it also creates a certain recognition; You can't just send an application and say: "I want to be a part of it" - you need to create a detailed report before you can be considered into the club. This means that you must prove the CO2 emissions you save on a lightbulb. They ask for the number of lightbulbs, or LED light bulbs you have – these are very specific details – and it is a lot of work but again, it is healthy. And then again, you can say that it is a great competition and brings awareness."

#### Verheij, Comwell, Interview, 2021

In 2021, Comwell was granted three awards from Momondo's Climate Award of 2021. The award is granted to hotels and conference centers that have the lowest documented CO2 emissions per hotel guest, based on the hotel's own data. The data is then calculated by Klimascore.com (climate score), which is developed by CONCITO and DTU (Denmark's Technological university), and the results are reviewed by a jury based on climate scientists and associates from the industry. Other winners of the award were Scandic Hotels and Rungstedgaard (Comwell, News, 2021).

According to Comwell's website, Comwell is considered the most sustainable hotel chain in Denmark, and a recipient of the Sustainable Brand Index Awards for three years in a row. The Sustainable Brand Index™ is Europe's largest independent brand study focused on

sustainability. It measures and analyses how sustainability affects branding, communication, and business development. With the help of more than 60.000 consumers and 1.000 decision-makers across 8 countries, the study measures, and analyses over 1.400 brands across 34 industries on sustainability (Comwell.com, n.d.).

## 4.3. Case Analysis 3: GULDSMEDEN HOTELS

Guldsmeden is originally a Danish hotel chain, which nowadays has 9 hotels in Europe and 2 hotels outside of Europe (Guldsmeden Hotels, n.d.; Aggersborg, 2019). The 6 hotels located in Denmark differ by size from 26 rooms in the Aarhus hotel to 214 rooms in the newest hotel of the chain, Bryggen. 8 of the Guldsmeden Hotels have been certified by the Green Globe certification, which communicated the hotel chain's initiatives within sustainability and ensures the highest level of sustainable management and operations (Aggersborg, 2019; Green Globe standards for sustainable tourism, n.d.). On top of that, all the Guldsmeden hotels, except the Icelandic Eyja hotel, have Danish Gold Ø-label or Debio Ø-label, signifying that more than 90% of food is organic (Aggersborg, 2019).

All the hotel buildings were built between the years 1880 and 1950 and re-constructed and re-designed in a way suitable to the surrounding neighborhood (Aggersborg, 2019). All of the re-designing has taken place with the purpose of being as sustainable as possible, long-lasting and energy-saving, and including natural sound materials (Aggersborg, 2019). Below you can see a table of the hotels with their locations (Guldsmeden Hotels, n.d.).

Hotel	Location
Axel	Copenhagen, Denmark
Manon Les Suites	
Carlton 66	
Bryggen	
Babette	
Aarhus	Aarhus, Denmark
Eyja	Eyja, Iceland
Oslo	Oslo, Norway
Lulu	Berlin, Germany
Libellule	Cote d' Azur
Chapung Se Bali	Bali

All Guldsmeden hotels differ by their characteristics and design (Aggersborg, Guldsmeden Hotels, Interview, 2021). None of the hotels are the same, because as Kirsten Aggersborg, PR & Communications Manager at Guldsmeden said, the Co-founder Marc, who is also an architect, creates his own designs for each of the hotels. He doesn't judge according to what the guests like, but what he personally enjoys instead, and that is also what makes Guldsmeden's style so special (Aggersborg, Guldsmeden Hotels, Interview, 2021). Even though none of the hotels are the same, they have the same core, and that is sustainability (Guldsmeden in Copenhagen, n.d.; Aggersborg, Guldsmeden Hotels, Interview, 2021).

According to Kirsten, sustainability in tourism and specifically, in hospitality, is very important because 'tourism in itself is not sustainable at all' (Aggersborg, Guldsmeden Hotels, Interview, 2021). Therefore, she believes that we should try to do as much as we can to minimize our impact on the environment (Aggersborg, Guldsmeden Hotels, Interview, 2021). Another great aspect of Guldsmeden is that the hotel chain tries to always innovate to increase its sustainable and environment-friendly impact (Sustainability, n.d.). As Kirsten said, "you can never just be sustainable and then say, 'I am done now". Guldsmeden Hotels is always trying to innovate and foresee any sustainable opportunities to support their positive impact on the planet (Aggersborg, Guldsmeden Hotels, Interview, 2021; Aggersborg, 2019). Another great fact is that the Guldsmeden Hotels implements all the sustainable innovations based on a bottom-up approach which is meant to ensure easier integration of sustainability within all hotel departments (Aggersborg, 2019).

On top of that, Guldsmeden Hotels are involved with the local community and several charity projects (Aggersborg, 2019). The hotels try to communicate and fight for example human trafficking by supporting HopeNow.dk and cooperate with the Children's Heart Foundation since 2008 (Aggersborg, 2019). At last, Guldsmeden Hotels in Copenhagen are members of the GoGreen initiative in Denmark, specifically in the Copenhagen area, which offers a digital map with the best green and sustainable choices for tourists (Aggersborg, 2019; GoGreen Danmark, n.d.).

#### 4.3.1. Responsible Consumption and Production

"..before Corona, we had all these things in place to minimize food waste, and we didn't experiment once when we made guests participate by sending them.. we have this Digital Guest book, you know, where we can send messages to the guest by text message, and every morning, the guest would get a text message saying 'okay, you are a part of competition now and the hotel in Copenhagen' ..we have 5 hotels.. 'the hotel in Copenhagen with the least food waste per person from the breakfast has a free wine hour'.. But we, you know, we were not worried, but we were interested to see how people would get – and they were so positive! And we thought that we had so little food waste and we thought we can't do better, but we actually did do better for that period of time when we did that competition.."

## Aggersborg, Guldsmeden, Interview, 2021

Now, the main goal of Guldsmeden Hotel is to keep up with minimizing its negative impact and trying to go back to where the hospitality was in 2019 (Aggersborg, Guldsmeden Hotels, Interview, 2021). As Kirsten mentioned, the hotels were able to operate and innovate without any limits (Aggersborg, Guldsmeden Hotels, Interview, 2021). One of the things they wish to become better, and what they have already started within 2019 before the Covid-19 pandemic started, was to engage not only the employees but also the guests in the sustainability operations in the hotels. As this example shows, one of the innovative ideas that Guldsmeden Hotels in Copenhagen initiated was a competition about minimizing food waste. This initiative proved to be very successful and Guldsmeden wishes to engage its guests in the future sustainable operations more (Aggersborg, Guldsmeden, Interview, 2021).

"..we were a bit, you know, worried about it, because it opened this thing, where people say, you know like with the towels that I leave the towel on the floor and we take it, if you hang it up we leave it.. and people say 'oh you are just doing that to save money.."

#### Aggersborg, Guldsmeden, Interview, 2021

Nothing is ever perfect, and as in the case of Guldsmeden, this competition and guests' involvement opened a space for discussion (Aggersborg, Guldsmeden, Interview, 2021). Encouraging the guests to be part of the sustainable operations, whether it is connected to food waste at the breakfast or for example hanging up the towel, so it can be reduced and

does not necessarily have to be substituted, is very complex. As Kirsten stated "it's true, it is obviously nice to save money on laundry and not to throw the food out, but it's also sustainable.." (Aggersborg, Guldsmeden, Interview, 2021).

Another initiative that Guldsmeden Hotels have started with is their policy for hotel restaurants when there is only a maximum of 20% dishes served with meat and there are always vegetarian and vegan options included in the menu when the vegan options reach up to 30% of the menu offerings (Aggersborg, 2019). Kirsten also refers to the reality that as a hotel you should show your 'face' and whatever you believe in or want to happen, should be put out there. And as she has also seen a change in customer behavior in the past years, it only supports the fact that that is something the hotel should do (Aggersborg, Guldsmeden, Interview, 2021).

She explains that it is not the segment of guests that changed over the years, but it's the people themselves (Aggersborg, Guldsmeden, Interview, 2021). The guests started to know more about sustainability as general awareness and therefore, they even sometimes require it. As she further elaborates, "They understand food waste, they understand sustainability, they understand green energy, they understand .. because there has been just so much focus on it.", which makes them more aware of all the actions the hotel is doing, and she sees it as a positive aspect (Aggersborg, Guldsmeden, Interview, 2021).

"...I don't know if you followed the debate there was in Denmark over the summer with the tomatoes. Because local produce is not always the most sustainable choice.."

#### Aggersborg, Guldsmeden, Interview, 2021

One of the discussions we had previously with Sinatur Hotels was that the most sustainable food production is the one grown locally (Nielsen, Sinatur Hotels, Interview, 2021). However, Guldsmeden has found a way to measure the results of locally grown, for example, tomatoes, in comparison with a tomato grown in Spain and transported in Denmark. Guldsmeden Hotels only have sustainable suppliers, which have a 'no flying policy', meaning that the goods from foreign countries must be delivered to Denmark mostly on track (Aggersborg, Guldsmeden Hotels, Interview, 2021; Aggersborg, 2019). Their main supplier, Årstiderne, cooperates with company CONCITO, which has done calculations on the products grown locally in Denmark, but since the beginning grown in the greenhouses, and the products grown in Spain and then

brought to Denmark (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). As Kirsten says, this calculation has proved that some of the products are simply better to be brought from abroad and have caused less CO2 emissions. What Kirsten mentioned as an important aspect, it is vital to have a 'partnership' with your supplier, because they are the experts in their field, and thanks to that their hotels produce as least emissions as possible (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). She mentioned that sometimes as a hotel, they ask for a certain fruit or vegetable, but then the supplier informs them that that certain fruit or vegetable is not in season, and it would be better and more sustainable to pick another one instead. This can reflect on the hotel's impact and prevent them from choosing something which can be easily substituted by something else (Aggersborg, Guldsmeden, Interview, 2021).

"..Obviously, we recycle everything that is possible to recycle, you know, glass bottles, plastic, paper, and everything is sorted. Food waste is obviously on it, so it's picked up by a company called Daka ReFood.."

#### Aggersborg, Guldsmeden, Interview, 2021

Not only does Guldsmeden have corporations with their supplier, but they also cooperate with a company called Daka ReFood, which specializes in food waste and its recycling and reuse (Aggersborg, Guldsmeden, Interview, 2021; Daka ReFood, n.d.). Daka ReFood is a Danish company, whose main goal is to recycle food waste and frying oil (Daka ReFood, n.d.). They provide their customers, just like Guldsmeden Hotels, with containers which they further pick up, sort out if necessary, and change the food waste into a biofuel, which can be used in specific vehicles, like cars for example (Daka ReFood, n.d.).

It is important to say that even though Guldsmeden Hotels has cooperation with Daka ReFood, they still try to minimize their food waste as much as possible. Kirsten mentioned that they only put small portions of food in the breakfast buffet to ensure that almost everything gets consumed (Aggersborg, Guldsmeden, Interview, 2021). Afterward, if there are still any leftovers left, the staff, specifically housekeeping staff is invited to eat the food for lunch. If there are still any leftovers left after that, they try to use the leftover bread and ham to make for example panini in the lunch/afternoon restaurant, the same goes for croissants, cheese, and other food (Aggersborg, Guldsmeden, Interview, 2021). Only after,

the leftover food is thrown out and taken by the Daka ReFood (Aggersborg, Guldsmeden, Interview, 2021).

#### 4.3.2. Affordable and clean energy, and water consumption

"..In terms of energy, obviously, we do all the 'usual' things you can. You know, we have the switch in the room where you can turn on or all the lights, you know, turn everything off when you leave the room, we have sensors in the hallways, and we obviously try to minimize our use of energy in general.."

### Aggersborg, Guldsmeden, Interview, 2021

Guldsmeden Hotels is interested in decreasing its energy and water consumption to a possible minimum, and at the same time providing the best possible experience to its guests (Aggersborg, Guldsmeden, Interview, 2021; Guldsmeden Hotels, n.d.). They are always trying to stay up to date and follow up on all the technical innovations which could help them to decrease consumption (Aggersborg, Guldsmeden, Interview, 2021; Guldsmeden Hotels, n.d.; Aggersborg, 2019).

Recently, Guldsmeden Hotels have implemented orbital showers in their newest hotel Bryggen, where the water works based on circulation and almost does not lose warmth (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). Therefore, this innovation saves water and energy on the heating of the water and as Kirsten said, it is able to pay for itself within 2 years, which also supports saving of the costs (Aggersborg, Guldsmeden, Interview, 2021; Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden). They are planning to implement this type of shower in all the new coming hotels (Aggersborg, 2019).

Concerning another water consumption saving, Guldsmeden Hotels preserve and collect rainwater which is then used for watering the plants at the hotel sites (Aggersborg, 2019) They also use a Premium Purity coating of the bathrooms which saves at least 50% of water consumption on cleaning. This type of coating only requires cleaning with mineralized water and therefore, it also saves 100% of the expanses on the cleaning products (Aggersborg, 2019).

When it comes to energy, they have started with green energy already back in approximately 2007 and continue using green energy until today. Their energy provider is Ørestad, a Danish company, which, if you order green energy from them, invests in sustainable projects around the world (Green Energy Solutions, n.d.; Aggersborg, Guldsmeden, Interview, 2021). In the hotels, they only have low-energy light bulbs, and the lighting outdoors has been set on a timer. Moreover, the guests in the rooms must use their key cards in order to turn on the electricity and light in the rooms. This prevents extra energy consumption in each of the rooms (Aggersborg, 2019).

Guldsmeden Hotels also do not have any air-conditioning in their hotels, except for the fans in Manon Les Suites, which helps with the extensive heat during the summer months (Aggersborg, 2019). Their main internal and external communication takes place through their CO2-emissions' free website and no necessary print is done. The linen from the hotel rooms is dried on the clotheslines outdoors if the weather allows it (Aggersborg, 2019).

### 4.3.3. Guldsmeden Hotels and UN's Sustainable Development Goals

".. I think actually in Denmark we are probably a little bit lucky in that the state demands it or the laws in Denmark, for instance like a minimum wage and we don't have to worry about people's social security because we have that in Denmark. So there is a lot of demands that the Green Globe have in other countries that would make it more difficult for them or more as an investment for them, but we already have it.."

## Aggersborg, Guldsmeden, Interview, 2021

As Kirsten explains, Guldsmeden Hotels are doing a lot from the SDGs framework but do not present it in such matters within their marketing channels. As she also elaborates, Denmark as a country has already several SDGs implemented in the country's laws and regulations, so certain parts can be easier implementable than in other countries - such as social security (3 - Good Health and Well-being), clean drinkable water (6 - Clean Water and Sanitation), and minimum wage (8 - Decent Work and Economic Growth). Decent work and economic growth are also supported by pair overtime work, as well as the paid holiday of 6 weeks per year, which goes hand in hand with Danish laws (Aggersborg, 2019).

"..so it's a collaboration I would say. Sometimes we even can experience that they come to us and say 'look, you've ordered this, but this is not in season, so it's not the most sustainable choice.."

#### Aggersborg, Guldsmeden, Interview, 2021

One of the other SDGs in which Guldsmeden Hotels is involved can be identified as number 17 - Partnerships for the Goals. Guldsmeden collaborates for example with their suppliers and their cooperation is based on a 2-way discussion. In this way, Guldsmeden can be sure to get the most sustainable products, since their suppliers are the experts in the field and can orient themselves among more and less sustainable products (Aggersborg, Guldsmeden, Interview, 2021). Therefore, their advice to Guldsmeden brings up more sustainable solutions. At the same time, another collaboration Guldsmeden has with DakaRefood can be identified as crucial for their operations as well. This partnership helps Guldsmeden to deal with food waste and leftovers and changes those into biofuels (Aggersborg, 2019).

Being sustainable not only helps Guldsmeden to make an impact from a social perspective but also environmental (Guldsmeden Hotels, n. d.; Aggersborg 2019). Therefore, all the actions that Guldsmeden has introduced in everyday operations work towards improving climate change (13 - Climate Action). Climate change has been a very debated topic in the last period, also due to COP26, a governmental meeting on reducing global warming, reducing CO2 emissions, recycling, reducing waste, partnering up with other companies, and simply becoming more sustainable adds on the goal of minimizing climate change (EY Parthenon, OC&C, Booking.com, 2021).

#### 4.3.4. Certificates and awards

When it comes to certifications, Guldsmeden is trying to prove to its guests being a trustworthy choice when it comes to sustainability, and therefore, they are very active in improving their image by applying for several certifications representing their hard work in decreasing negative impact (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). Guldsmeden not only gained the Green Key certification, which is one of the most important sustainable certifications in the hospitality industry but also Green Globe certification (Aggersborg, Guldsmeden, Interview, 2021; Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden; Aggersborg, 2019; Green Globe

standards for sustainable tourism, n. d.; Green Key, n.d.). This certification is one of the most complex ones there is and as Kirsten said, the most difficult part was to put all the documentation together (Aggersborg, Guldsmeden, Interview, 2021, Green Globe standards for sustainable tourism, n. d.).

Another thing that she mentioned was that in Denmark it is relatively 'easier' to apply and fulfil the requirements of several sustainable certifications because many of them are already in Danish law (Aggersborg, Guldsmeden, Interview, 2021). Therefore, she finds it easier for hotels in Denmark to acquire certifications which could possibly be very difficult to achieve for hotels in other countries, specifically certificates outside of Europe (Aggersborg, Guldsmeden Hotels, Interview, 2021; Peter Reelfs, Green Destinations, Interview, 2021). Guldsmeden Hotels found the biggest challenge in providing the institutions with relevant documentation proving their sustainable actions, more than just keeping up to its standards further on (Aggersborg, Guldsmeden Hotels, Interview, 2021).

"..I think that the main thing is, and I think that's a good thing about sustainable suppliers, is that they are usually very dedicated themselves. And actually, we have learned a lot from Arstiden and from other sustainable suppliers.."

## Aggersborg, Guldsmeden, Interview, 2021

Acquiring Ø-label (eco-label) proves that Guldsmeden Hotels try to stay as sustainable as possible also in their food supplies (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019, Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden). Except for the Eyja, Icelandic Guldsmeden Hotel, all of the other hotels have been awarded by the Danish Golden Ø-label or the Debio Ø-label. An estimated percentage of the organic food in the hotel kitchens is around 98% or higher (Aggersborg, 2019). As already mentioned before, they have a broad variety of suppliers, but their main supplier, Årstiden, is not only their supplier, but their relationship works on a basis of cooperation (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). Meaning this, Årstiden gives advice to Guldsmeden Hotel on what to do to create a positive impact and be more sustainable (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). At the same time, thanks to this centralized purchasing, they have cut down the number of deliveries by 25% each week, which also means less CO2 emissions for transportation (Aggersborg, 2019). All

Guldsmeden suppliers also have a 'no flight policy', which means that the food is always transported 'on land' and therefore, doesn't release the same amount of CO2 emissions (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019; Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden). On top of that, all Guldsmeden's suppliers bring their products and supplies in reusable cases and carts which they then take back (Aggersborg, 2019).

By this, Guldsmeden Hotels ensure that their negative impact is as low as possible and their positive impact as high as possible. What Kirsten saw a bit of a challenge in, is when the hotel has both, conventional and sustainable suppliers, where it might be difficult to find a balance among those. This is not the case for Guldsmeden, who only collaborates with sustainable suppliers. The suppliers that Guldsmeden collaborates with are by most Ø-certified, or, if they are not, they are local sustainable producers (Aggersborg, Guldsmeden, Interview, 2021; Aggersborg, 2019). All products, that Guldsmeden purchases are rather fair-trade or organic (Aggersborg, 2019; Appendix 10 - Guldsmeden Hotels Purchasing Policy, Sustainability, and Certifications at Guldsmeden).

## 5. Discussion

The findings from the comparative analysis conducted of the three hotel chains offer various understandings within different areas of the sustainable development of hotels in Denmark. Overall, the three hotel chains analyzed showed a deep commitment towards sustainability, and the overall transition from the basic linear economy model to a more circular economy-focused model, in which sustainability is included within all decision makings, and used as the main pillar within all three organizations.

The focus on sustainable development is fairly new within Sinatur Hotels and Comwell Hotels as such in comparison with Guldsmeden which has originally been established on sustainable practices, with a small exception - they did not use sustainability as a 'selling factor' for the first 10 years. Changes are constantly occurring within all three hotels towards making an impact against CO2 emissions, food, and garbage waste, decreasing energy, water, and heating consumption, as well as improving on sustainable knowledge within the organizations through educational programs for employees, increased guest involvement, collaboration, and value co-creation within the hotel industry, including an increased involvement towards external NGOs outside of the organization, such as "Plant a tree organization", in which the sustainable development goals (SDGs) are included with a promotional and commitment goal (Nielsen, Sinatur, Interview, 2021, Aggersborg, Guldsmeden, Interview, 2021, Verheij, Comwell, Interview, 2021).

While it might seem odd that a hotel chain in Denmark attempts to work towards eliminating poverty, in line with SDGs, Guldsmeden Hotels is an example of a hotel chain involved in social sustainability, specifically concerning the SDG Goal 1 - No Poverty (Goal 1: End poverty in all its forms everywhere - United Nations Sustainable Development, n.d.). In their operational culture donating collected fees to support families in need with the possibility of their children to be part of a sports club, and during Covid-19 lockdown when these donations were not possible, Guldsmeden has auctioned some of their luxuries stays to donate DIFs Get2Sport programs (Aggersborg, 2019, Om DIF get2sport, n.d.) which supports a similar matter.

Guldsmeden sends every year all the collected fees for bike rentals to the Sports Confederation in Denmark, which then provides free sports memberships and sports equipment to families in need. Guldsmeden has started this initiative to reduce the

inequalities and for better integration of refugees or poor families - they believe that 'we are all the same on the playing fields' (Aggersborg, 2019). During Covid-19, Guldsmeden Hotels were not able to generate as much profit from bike rentals since they had to stay closed for a period. Therefore, they have participated in different projects, where thanks to lauritz.com they have auctioned their luxury stays and spa stays, and all the profit went to support DIFsGet2Sport programs (Om DIF get2sport, n.d.). This initiative points attention to 55 vulnerable areas in Denmark - located in 28 municipalities, where the sports clubs/associations work based on volunteers. This fund supports the volunteers to coach and train children, whose parents cannot afford to pay a fee, and support the integration of children from foreign families into the community (Om DIF get2sport, n.d.). Considering these initiatives, it is obvious that the hotel industry can become innovative with its focus on supporting several SDGs by thinking outside of the box.

Where Comwell seems to have a more pragmatic approach and be more business focussed, Sinatur seems to have a greater passion towards sustainability and the greater good, using terms such as making a better world for our kids and grandchildren, using certificates as motivators for others, and clear indications of their commitment for the environmental impact using GHG accounting tool, and by committing to certificates like the B-Corp e.g., "I made a new strategy, which we will launch soon, where we will call ourselves a sustainable company, working within the hotel industry, instead of calling ourselves a sustainable hotel. I would like people from outside to consider us a sustainable company, who is doing this as a major thing, the top-of-mind thing." (Nielsen, Sinatur Hotels, Interview, 2021). Guldsmeden in this case stands a bit on a different position than these two hotel chains, since Guldsmeden has been established as a sustainable hotel, however, as Kirsten Aggersborg mentioned, back in the day 'it was not a thing' to use it as a selling point (Aggersborg, Guldsmeden, interview, 2021). This has changed since in the past years, there has been an increased demand of the consumers preferring environmentally friendly companies (loannidis et. al., 2021). Guldsmeden Hotels always try to stay up to date with sustainable innovations and always develop in this matter, and even though they now use their sustainable actions also for promotion, mostly they do these initiatives because of their concern for the environment and world around us. When talking to Comwell, they too had a passion for sustainability, but specific quotes could indicate that they are more business-minded, e.g., when asking if they

would consider the B-Corp certificate, the answer was; "if we believe it can bring a competitive advantage" (Verheij, Comwell, Interview, 2021). Moreover, Sinatur has a huge commitment to 'the nature, examples of this is seen in their procurement of land for each meeting or conference held, running their hotels with the question in mind: 'How would nature run hotels?', as well as their determination to become CO2 positive in 2030 and their partnering with the Plant a Tree Organization, as well as other NGO partnerships (Nielsen, Sinatur, Interview, 2021).

These statements do not necessarily mean that one hotel is more passionate about sustainable development than the other one, but when analyzing the specific sustainable initiatives that each hotel implementing, the overall commitment does indicate a more business-related process with the focus being on profitability compared to making a change, but overall, it does change the perception of each operators' commitment. This is not necessarily a negative thing, according to Katja Nielsen from DAKA Refood, bigger chains and companies are the ones making real changes. She explains: "bigger companies are pushing/encouraging their suppliers to towards the sustainable development and a greener business, on one hand, big players have to follow certain requirements and a commitment and cannot accept business with suppliers who do not operate in the same green directions as them — as this would technically be greenwashing, and on the other hand, this is also a motivational factor for smaller suppliers/businesses to operate with sustainability more — there is both a trend and a need for it." (Nielsen, Daka Refood, Interview, 2021).

### 5.3. Government Sustainable Commitment

While sustainable development has seen an increase of interest both globally and in Denmark, the hotel sector's sustainable initiatives and overall enlargement within the area have been limited due to a lack of government involvement, through regulations and policies. Bramwell & Lane's study (2009) claims that the potential threat of the climate crisis would encourage an increased commitment from the government, through regulations to control or reduce environmental impacts, especially from the growing tourism and aviation industry. In addition, they mention that an increasing number of people only recognize 'government actions' to be beneficial on the road to tackle the global climate crisis.

Giddens (2009); Bramwell & Lane (2009) suggests a range of implementations to preserve sustainable tourism development. For example, the polluter pays principles must be applied by government intervention to encourage businesses to make a positive impact on the global crisis. In addition, the government must rise above the demand of day-to-day politics with the purpose of obtaining political advantages to make an impact on the climate crisis and develop successful sustainable development. Regulations that might be unpopular opinions to some are necessary to achieve long-term results. Lastly, it mentions that government planning should encourage and utilize the initiatives from private sectors and businesses to motivate others to do more than the minimum required. Furthermore, they argue that the government should restrict from having too many regulations to promote sustainable development (Ayoso, 2007).

According to Claus Nielsen from Sinatur Hotels (2021), some of the main challenges within the hotel sector are knowing what is wrong, and what is right: an example that Nielsen brings up is having the relevant data to make the correct decisions. For example, should Sinatur choose Danish locally grown organic tomatoes produced in a greenhouse or should they choose Spanish grown organic tomatoes which are produced in a fitting climate, but transported from a destination further away? Nielsen uses this specific example for tomatoes but points out that it is related to many ongoing decisions within the business. Nielsen from Sinatur Hotels (2021) argues that the government should provide relevant data, guidelines, or fact sheets around the impact of products, which could help businesses like Sinatur make

the right decision towards sustainable development and the overall goal of reducing CO2emissions (Nielsen, Sinatur, Interview, 2021).

On the other hand, such data has already been developed slightly. CONCITO have developed a climate database called 'Den store klimadatabase' which provides data on the climate footprint generated from food products - currently they offer data from 500 different groceries. According to CONCITO, the restaurant sector is increasingly demanding data on the climate footprint generated from individual food products (denstoreklimadatabase.dk, n.d.; CONCITO, Den store klimadatabase, 2021; Nielsen, Daka Refood, Interview, 2021).

Similar challenges are brought up by Verheij (2021) from Comwell Hotels who indicates the difficulties of reporting and the registration process of organic food used within the hotel. Verheij mentions the struggle of kitchen employees who do not necessarily want to spend their time analyzing the data of organic food used in a meal, etc., but rather want to spend their time in the kitchen working with the food (Verheij, Comwell, Interview 2021). Going back to the issues presented by Nielsen (Sinatur Hotels, Interview, 2021), he also mentions: "...you have to accept that it may only be 1 or 5% better than the alternative but as long as there is a development in process, things will get better..." — indicating that the progress of sustainability is still in the developing phase, but that small changes are still necessary to make, which adds up when implemented within an entire sector (Nielsen, Sinatur, Interview, 2021).

"..The whole sector is screaming for regulations, and we really need some solid guidelines, so we all know how to act. But it becomes a little fluffy and without any consequences. Because it is written in the Waste Executive Order "Affaldsbekendtgørelsen" and the legislation is completely clear — you have to sort your trash! But there is no authority who controls or regulates it - that is equivalent to having to drive 110 km/h on the highway, but you drive 140 km/h, and the police will not come.."

### Nielsen, Daka Refood, Interview, 2021

According to the Marketing Manager of DAKA ReFood and CEO of the ReFood Label, Katja Juul Nielsen (2021) the whole sector is screaming for regulations. One example Nielsen brings up is the current issues around the Waste Executive Order of 2021 'Affaldsbekendtgørelsen 2021'. According to Chapter 9: "Waste producing companies' waste management", § 61 cf. 3:

"Waste producing companies must ensure that their sorted commercial waste, cf. 1 and 2, which are suitable for material recovery, are prepared for recycling, recycled, or used for another final material recovery in accordance with the rules on handling commercial waste suitable for material recovery in the Executive Order on Waste Regulations, Fees and Actors, etc." (BEK nr 2159 af 09/12/2020, Miljøministeriet, 2021)

In addition, the Waste Executive Order of 2021, chapter 12: "§ 78. The municipal council supervises that the provisions of this executive order are complied with, cf. 2." (BEK nr 2159 af 09/12/2020, Miljøministeriet, 2021), according to the statement presented above, there is very little control of the regulations in this area. An example provided by Nielsen (2021), DAKA Refood is currently collecting food waste from around 25% of the companies within the hotel and restaurant sector. According to the Danish Environmental Protection Agency (2021) Denmark is producing around 1,214,000-ton food waste every year, within the restaurant and hotel sector this number is 71,000 ton a year (mst.dk, Nye tal for madaffald på tværs i sektorer, 2021). Taking into consideration that DAKA Refood is one of the main operators in the market collecting food waste, including Marius Pedersen (Mariuspedersen.dk, n.d.), it could suggest that the percentage of food waste collected in the current market, compared to current legislation would suggest a higher market percentage within the sector, indicating a potential hole in the market due to the lack of supervision from the municipal council supervisors.

Moreover, Nielsen (2021) provides another example, and a solution to this issue. Currently it is the Danish Environmental Protection Agency who controls waste management within businesses, and the Danish Veterinary and Food Administration who controls food regulations and provides a smiley according to the overall score (fødevarestyrelsen, smiley, n.d.; Nielsen, Daka Refood, Interview, 2021). Nielsen explains that such administrations could be a viable solution to the current issue with the lack of control of waste in general. For example, by incorporating the two mentioned above, would create a dynamic control of businesses handling food and waste, which could create transparency for business owners, as well as ensure continued and actual control of regulations (Nielsen, Daka Refood, Interview, 2021).

Also, CEO and founder of GreenMoves Astrid Carl (2021) voices her concern about the limited commitment from the government. When raising the question about the government's sustainable commitment in Denmark, she says:

"...I have no words on how bad it is! It is a catastrophe. Our government has shown through Corona how they are able to manage responsibility, how they were able to shut down communities in order to protect the population, but they have not had the guts to shut down the community on the way we are living – they have not executed the same power, which is much more important when it comes to sustainability than compared to Corona.."

#### Carl, GreenMoves, Interview, 2021

Carl (2021) also argues that the government should have the highest level of knowledge, and mentions that when the Minister of Environment Dan Jørgensen talks about 'saving the climate' it diminishes the real issue at hand, as she says: "..no we are not talking about saving the climate, we are talking saving the planet.." – suggesting that the real issues are not being taken seriously from the government.

Much of the Danish Parliament has agreed that Denmark must reduce its greenhouse emissions by 70 % in 2030. This requires reductions of approximately 20 mil tonnes of Co2. Since the election, agreements have been made, which give approx. 4 mil tonnes reduction (Hjøllund & From, 2020). According to Prime Minister, Mette Frederiksen, to reach the goal of a 70% reduction by 2030, it comes down to technology and innovation: "..It can only be done if we dare to believe that technology helps us find the answers for us. If we do not do that, there will only be higher fees. And that is not the answer. That is not the answer today, and that is not the answer in five years or in ten years' time. It's new technology, and it's innovation.." (Wind & Korsgaard, 2020). A similar argument was provided by the Minister of Environment, Dan Jørgensen, who believes that technological development will to a greater extent ensure that Denmark reaches its climate goals, even if it takes longer (Hjøllund & From, 2020).

These commitments have received heavy criticism from other parties within the government. Enhedslisten says: "...If the government believes that the climate crisis will solve itself through technology development, we will end up not achieving our climate goals.." (Hjøllund & From,

2020). SF agrees: "...We risk standing two years before 2030 and suddenly having to pick up a large backlog. Then it will become really expensive.." (Hjøllund & From, 2020). In addition, parties have suggested other proposals to help reduce CO2-emissions. Such as taxes on CO2-emissions, a ban on oil-fired boilers, fees on air travel and groceries — proposals which the Minister of Environment warns against and says it may reduce CO2-emissions in the short term but will cost jobs and create inequality - "...We need to make the production of the pork chops green instead of adding such huge taxes to the pork chop, resulting in Mr. and Mrs. Jensen cannot afford to buy it..", says Dan Jørgensen (Hjøllund & From, 2020).

When the Prime Minister talks about new technologies she refers to the PtX or 'Power-to-X' – a new type of climate-neutral fuel that is sought to be produced from green power e.g., 'wind turbines' – which, according to professor of Energy Planning at Aalborg University, Brian Vad Mathiesen, only will make a small contribution to the reduction of CO2-emissions in 2030, and argues that the technology is important but will only make a real impact within the period between 2030 – 2050 (Nielsen, 2020).

The examples presented above provide a certain insight into the lack of government initiatives to manage real sustainable plans, within all of Denmark that also affects the hotel sector. In addition, it can be argued that the sustainable development in Denmark to achieve its 2030 goals is solely based on unrealistic developments, and an overcommitment to technologies that are still in the idea phase - only limited years before an idea must provide factual results. To comply with industries and the goal of reducing CO2-emissions, specifically in the hotel sector, current technologies are already available to make a real impact. According to a study developed by EY Parthenon, OC&C strategy consultants, and Booking.com (2021), there is potential to adapt a range of carbon saving practices within the accommodation sector, and the possibility to reduce its total CO2-emissions by up to 32%. However, it shows that there are barriers to progress due to lack of urgency, knowledge gaps, and lack of financial resources, which essentially could be conquered through the contribution and cooperation from all industry stakeholders, including government practices (EY Parthenon, OC&C, Booking.com, 2021). Also, Nielsen (2021) from Daka Refood says: "...Comwell, well in our eyes, is a frontrunner within this sector and one who dares go into the market with it, and talk openly about it.", explaining that some of the barriers they see within

the hospitality sector, is exposing their data to the public, so people can see a business 'bad numbers'.

Sinatur argues that small changes in the right direction should be taken into consideration, even though the percentage of positive change could be small (Nielsen, Sinatur Hotel, Interview, 2021). A similar challenge is presented by Comwell who requests transparency with the registration and control of produce used within the companies (Verheij, Comwell Hotels, Interview, 2021). DAKA Refood implies that current legislations on food waste are not being controlled properly by the right authorities, leading to gaps of limited control and lost business for other stakeholders in the market (Nielse, Daka Refood, Interview, 2021). Overall, it can be disputed that these 'low-hanging fruits' could be improved if there was more visual involvement and commitment from the government - currently, we see examples of businesses taking initiative to solve some of the issues where the government lacks. A similar argument was presented by Rasoolimanesh et. al. (2020) who discusses the importance and effectiveness of governance and argues that the government should be treated as the main pillar within sustainable development (Rasoolimanesh et. al., 2020).

Some of Bramwell & Lane's (2009) arguments correlate with current government involvement, where others do not: 1. sustainability has become a more present matter of concern, where the climate crisis is used as the main issue that needs to be tackled. It suggests that areas where an immediate change is possible, are overlooked due to the 'potential' but unknowingly outcome of new technologies, that will not meet 2030 goals, and which seems to be the main priority from political aspects. 2. governments seem to be too concerned with public inequality to make necessary sustainable changes that could potentially make an immediate impact on current CO2-emissions, and at the same time encourage businesses to reduce their CO2-emissions. 3. According to Ayoso (2007) fewer government regulations need to be implemented to encourage sustainable development, but comments from the interviewees suggest the exact opposite - regulations and proper authority control are needed to steer towards necessary change, due to loopholes as well as lack of urgency from some stakeholders in the markets.

# 5.4. Demand changes and self-regulative initiatives

According to Bramwell & Lane (2009); Ayuso (2007); Field (1994), sustainable tourism has been centered on the potential of self-regulation by the tourism industry. Involving self-made initiatives, the use of standards to maintain code of conduct within both industry and tourists, which was never created or enforced by governments. These methods of self-regulation were usually led by companies themselves, or by associations of companies adopting voluntary codes of conduct together with sustainable and environmental initiatives. Moreover, they argue that these initiatives are voluntary decisions, which may have been encouraged by governments, but with limited or no input from them.

Evidence suggests that the lack of government involvement has spurred a sort of selfcontribution towards making a sustainable impact, from some businesses, both within the hotel sector and elsewhere (Bramwell & Lane, 2009; Field 1994). On the other hand, Bramwell & Lane (2009); Williams & Montanari (1999) conclude that self-regulation by itself, is not considered a sufficient approach, and in order to achieve efficient management systems for sustainable tourism needs regulations from government policies. As we can see from Sinatur Hotels, Guldsmeden Hotels and Comwell Hotels have all proven to go 'above and beyond when it comes to the sustainability commitment without having to conform to a range of government regulations - the opposite, all three hotels proved to initiate projects that conform with several of the sustainable development goals, reduction of CO2-emissions, etc. Both Sinatur and Comwell started incorporating GHG reporting as a part of their business measuring the amount of CO2 emissions the whole company is emitting (Verheij, Comwell Hotels, Interview, 2021; Nielsen, Sinatur Hotels, Interview, 2021). In 2019 and 2020 Sinatur was able to provide a detailed GHG report, which not only showed that the highest CO2 emissions emits from Scope 3 emissions: "Upstream (i.e. cradle-to-gate) emissions from the extraction, production, and transportation of goods and services purchased or acquired by the reporting company, which amounts to more than 80% of the total CO2-emissions", - but also could provide results of carbon neutrality in 2020 (GreenKey, Sinatur Hotels & Konference, 2020; Regnskabspraksis Baggrund for beregning Klimaregnskab 2019, Sinatur, 2020) - a choice that was not mandated but solely incorporated by the company to their commitment in reducing CO2-emissions and be up to date with future demands.

When raising the question if Comwell believes that there will come further regulations on CO2-emissions, Simon Verheij, Comwell Hotels, says: "...Yes, I think so. It will certainly be there. We're already thinking about it. This year, we will present a report in which we also include our CO2 emissions, and we can just as well adjust to it. It's not because we've been asked to, but we're doing it - we know that. We might as well start now and learn to work with it.." (Verheij, Comwell Hotels, Interview, 2021). Moreover, Verheij (2021) argues they were advised by VisitDenmark, that foreign guests and businesses will demand this for future conferences and large groups of travelers coming to Denmark, which also explains the increased focus on sustainability. According to Tasci (2017), there has been an increased demand from consumers for sustainable choices in the 21st century, which can be perceived as the main motivator for businesses to go forward with sustainable innovations.

Aggersborg (2021) also argues in the name of Guldsmeden Hotels, that their customer base has not changed, however, their customers changed in a way of demanding and valuing sustainability and sustainable actions the hotels are doing because they are more aware of those. Again, these sustainable actions have not been performed due to the government regulations, more due to the willingness of the hotel and demand from its customers (Aggersborg, Guldsmeden, Interview, 2021).

Verheij (2021) from Comwell Hotels mentioned that when their large accounts, such as Danske Bank and Novo Nordisk, must sign new 3-year contracts, they demand that Comwell can provide sufficient evidence of their sustainable commitment before obliging to any agreements (Verheij, Comwell Hotels, Interview, 2021). When asked if Daka Refood had seen a similar tendency of larger players on the market creating 'sustainable demands', Katja Nielsen (2021) provides a similar statement:

"..Absolutely, it is the big ones, such as Comwell who take the lead. We are also contacted by other chains, it can be in retail, where some of the big supermarkets want to play with us - and as I told you before - they usually do it because of demand - but they are increasingly interested in how it is we document the Co2 savings we make.."

Nielsen, Daka Refood, Interview, 2021

The statements suggest that bigger companies on the market create the demand for a sustainable change, while at the same time there is an increasing interest on how to e.g., manage reporting on CO2-emissions - suggesting yet another demand of interest. Nielsen (2021) continues, and explains that Daka Refood has the same conditions for their suppliers: "..they must also have a responsibility and code of conduct, etc. in order for us to approve them as suppliers for our business.." (Nielsen, Daka Refood, Interview, 2021).

On one hand, it can be argued that companies within different sectors create a form of code of conduct between each other to maintain a sustainable and green path. On the other hand, this could potentially affect the demand of entire supply chains to work more with sustainability - simply to keep up with rising demand. Nielsen (Daka Refood, Interview, 2021) argues that this could be considered an important and necessary 'competitive parameter' to maintain future business. Also, Astrid Carl (2021) from GreenMoves argues a similar movement: "...It has definitely changed from being something which idealistic people thought was necessary, to bring common sense for a business...", furthermore, she mentions: "...I rarely meet the people who only do it because the market wants it, and they don't want it themselves..." (Carl, GreenMoves, Interview, 2021), overall, it suggests a trend within businesses, firstly, it is important due to the rising demand in the market whether this is customers, suppliers or partners, and secondly, it seems to be a common interest for more and more businesses and people.

Niels Nørgaard (2021) from Østjysk Vinforsyning explains that "...the state should not, the government, state, should not drive the agenda. That should come, you know, from all of us operating in it. But of course, you can say that governments and states should perhaps put up some kind of framework and standards that actually urges people to move in that direction. Instead of punishing people, this will try to make it easier and better.." where he stands on the side of the government not setting the rules, rather encouraging the businesses to do better in terms of sustainability. He suggests a few things that the government could do to make it easier for the firms to smoothly change towards more sustainable ways, such as lowering taxes. He explains that instead of setting stricter regulations, trying to make certain benefits on the side of the state, more firms would be encouraged to achieve in a sense positive impact because there would be something in return (Nørgaard, Østjysk Vinforsyning, Interview, 2021). He also elaborates, just like Nielsen from Sinatur, that the transition towards

becoming sustainable also means higher expenses in the beginning, and therefore, potentially this is where the government could be more helpful rather than with setting regulations (Nørgaard, Østjysk Vinforsyning, Interview, 2021).

Overall, evidence suggests that the demand towards sustainability is changing, and very little proof suggests that this is due to regulations implemented through governance policies, but instead because of self-regulation. In addition, evidence indicates that larger businesses are demanding a more sustainable commitment from their suppliers and other stakeholders. In essence, this creates an overall market demand for more businesses in Denmark to become more sustainable, with many believing that sustainability is becoming a main competitive advantage within today's businesses, as well as increased motivation between stakeholders and industries. A similar argument has been brought up by Kou et. al. (2021); Hart (1995) they argue that the improvement of the competitiveness within the hotel industry has made the implementation of eco-innovation a differentiating factor in the sector. Overall, they argue that the contribution to sustainable development is being valued more and is considered beneficial in providing early adaptor advantages, this also increases a hotel's reputation and an imperior status to environmental development. Moreover they state that Proactive Environmental Strategies (PES) are essential for environmental commitment, increased employee participation with sustainability, that, not only, provides insights into cost reducing measurements but also an overall commitment to community, environment and sustainable development, and a business' green competitiveness.

# 5.5. Collaboration and value co-creation: a new competitive advantage?

As part of the circular economy, most hospitality operators involve mainly waste management operations, even though CE focuses also on regenerating social and natural capital as well (Sorin & Einarsson, 2020). At the same time, as Sorin & Einarsson (2020) further elaborate, no real success can be done alone, but collaboration is necessary for fulfilling a significant value for the hotel, its employees and customers, and the environment. The value co-creation is based on the collaboration of internal 'departments' and external stakeholders

(partnerships) within a certain sector, in this case, hotel departments and their suppliers and partners (Sorin & Einarsson, 2020).

All of the hotels mentioned in this paper are great examples of finding solutions for their waste management through collaborations. An example from Guldsmeden Hotels; they try to regulate food waste as much among the internal stakeholders at first. Through the F&B department, they started to serve smaller portions of food in the breakfast buffet, further on using the leftovers in their lunch restaurants where the goods could still be used as an ingredient to another dish, by inviting the housekeeping department to have lunch and consume the leftovers from the breakfast buffet. Only then the external stakeholders are involved, such as an example of their close collaboration with Daka ReFood (Comwell Hotels is also collaborating with Daka ReFood). Daka ReFood recycles the remaining food waste and changes it into biofuel which then can be used in several types of vehicles (Nielsen, Daka Refood, Interview, 2021).

Concerning the external stakeholders included in collaborations with hotels, one of the main actors are the suppliers. In the case of Guldsmeden, their main supplier Arstiderne has a 'no flying policy', which means, all the goods must be transported by other types of transportation. Guldsmeden does not limit themselves only to local production just like Sinatur Hotels, which only use locally grown food to decrease and minimize the environmental impact and CO2 emissions (Nielsen, Sinatur Hotels, Interview, 2021; Aggersborg, Guldsmeden, Interview, 2021). The reasons behind Guldsmeden's decision to import goods is due to Arstidernes collaboration with CONCITO company, which has managed to calculate the CO2 emissions on imported goods, such as tomatoes from Spain, and compared them with locally grown tomatoes in greenhouses in Denmark (Aggersborg, Guldsmeden, Interview, 2021). Due to the result, as Kirsten Aggersborg from Guldsmeden (2021) described, why they have decided to bring products from other countries as well and in her opinion, it's not sustainable to think only locally and not care about other countries but it's important to "look a bit wider and think globally". In defense of Sinatur Hotels, since they only have local Danish suppliers, they lack the knowledge on this calculation which Guldsmeden has achieved through collaboration with their supplier, and this has given them a competitive advantage in the market (Austin and Seitanidi, 2012).

Comwell's close relationship with their suppliers, such as Royal Unibrew, offers them opportunities to develop new sustainable projects within their hotels. The most recent project that Comwell introduced was their installment of 400 kilometers tubes within the whole facility to replace bottles with water, beer, and soda dispensers. The initial idea was created by Royal Unibrew, and after sparring with Comwell, they decided to try it out, which Comwell will now install with all their facilities. The sustainable component of this project reduces the physical labor from employees when they have to lift heavy crates of beer, soda, etc. as well as removing the component of depositing and cleaning glass bottles (Verheij, Comwell Hotels, Interview, 2021).

Another factor, also concerning the suppliers, is the choice of suppliers by the hotel. For instance, Guldsmeden Hotels only collaborate with sustainable suppliers, whereas in the case of Sinatur Hotels, it's a mix. Therefore, as Kirsten explains, it gives Guldsmeden the advantage of not finding a compromise or keeping an eye on the impacts of not sustainable suppliers (Aggersborg, Guldsmeden Hotels, Interview, 2021). Sinatur Hotels, on the other hand, explain that they encourage their suppliers to grow the food products sustainably and ecologically, however, they are not always successful due to the farmers' low profit and therefore, not being able to afford to grow food in more sustainable ways (Nielsen, Sinatur Hotels, Interview, 2021). Because of that, even though Sinatur Hotels have the highest passion for making a positive environmental impact, it is obvious that not always the decisions are only depending on their own will but also on the will of their collaborators and partners.

## 5.6. Collaboration, commitment, and guest involvement

According to both Comwell and Sinatur, collaboration beats the competition. Verheij (2021) mentioned that when Comwell started its sustainable journey it kept its projects to itself to maintain a competitive advantage within the industry. Why this mentality has changed could be argued to be because of the commitment and increased understanding of why sustainability initiatives are important in the first place, both within the company and the industry. It may offer a competitive advantage to the individual representative, but the overall goal is between the entire industry and should not be seen as an individual advantage. Verheij (2021) also mentions that through collaboration and communication towards the same cause, they have proved to offer greater opportunities and improvements within their own facilities,

compared to the previous mentality, when they kept their "ideas" to themselves (Verheij, Comwell Hotels, Interview, 2021).

The idea of sharing 'the-good-story' and increasing awareness about sustainability is especially seen within Sinatur Hotels. According to Nielsen from Sinatur (2021) they have around 50 'sustainable ambassadors' volunteering within all six hotels:

"..we call them sustainable ambassadors – they don't get a cent for the work they are doing, but they feel so much for our ambition, and strategy, that they make it work every day. Out on the floor, helping people how to sort trash, sharing experiences and good stories, like: "I tried this at my hotel, would you like to adopt it and see if it works in your hotel too?". I love it, I never make any agenda for the ambassadors, they bring everything to the agenda, and I'm just sitting around the table and listening – they are doing all the talking and the decision making – it's wonderful to see how much people feel for this!.."

#### Nielsen, Sinatur, Interview, 2021

In Sinatur Hotels the good story and sustainable initiatives are not only shared with people within the same industry but also guests, employees, etc. to increase the awareness and importance of the sustainable commitment. According to a previous study conducted in the Galapagos islands, exploring whether a well-conceived interpretation could influence tourists, it was proven effective to use educational approaches, to convince guests to act in a more sustainable and environmental manner upon their stay (Powell & Ham, 2008). Although, other studies from Kollmuss & Agyeman (2002); Juvan & Dolnicar, (2014) did indicate reasonable doubt around the effectiveness of educational initiatives within tourism. Many even suggest that tourists, who are sustainably involved at home, tend to behave differently when on holidays, including the argument that increased awareness of the negative impacts would not necessarily lead to immediate sustainable changes (Kollmuss & Agyeman, 2002; Juvan & Dolnicar, 2014).

While a recent study suggests that environmentally sustainable tourism is a key objective within the tourism industry, it also indicates difficulties of implementing such practices to change tourists' behavior. The study from Cvelbar, Grün, Dolnicar, (2017) suggests a number of different approaches to impact sustainable guests' behavior; Such as increasing the

sustainable involvement within hotel operators through marketing activities to communicate messages to change guests behavior at the hotel. This includes awareness-raising for behavior that can easily be changed without affecting the vacation enjoyment, as well as awareness-raising on global resource shortages. One example of this was seen in a Finnish hotel that managed to reduce food waste in the buffet by 21% simply by putting up a sign saying: "...Welcome back! Again! And again! Visit our buffet many times. That's better than taking a lot at once." (Kallbekken & Sælen, 2013), similar initiatives adopted within Guldsmeden, Comwell, and Sinatur Hotels. Although, Cvelbar, Grün, Dolnicar (2017) findings suggest that these approaches of awareness-raising communication should be targeted specifically towards the guests who display the lowest level of sustainable commitment to makeing an impact.

Guldsmeden Hotels have also tried to tackle the waste management issue with customer involvement through competitions with rewards, which proved to be a successful initiative. In this case, through the Digital Guest communication channel, the guests of the 4 Guldsmeden hotels located in Copenhagen have received a notification that they are part of the competition, and they compete for the lowest food waste from the breakfast buffet. The winning hotel has provided its guests with 1-hour wine tasting at the hotel bar in the afternoon. As Kirsten (2021) described, the guests 'were going crazy' and even though they thought before that they were doing well in terms of food waste, they were proven wrong thanks to their guests who have put a particular focus on this issue that day (Aggersborg, Guldsmeden Hotels, Interview 2021).

Similar guest involvement has also become a more present subject for Comwell Hotels. Verheij (2021) refers to the sustainable journey, which he argues is fairly new in the eyes of the consumer, and he does not believe the customer is quite there, just yet - as he mentions: "..and we do not have to knock you on the head because you do not think to green yourself. So we simply make the choice for you." (Verheij, Comwell Hotels, Interview, 2021). Verheij also mentions that guests could be more involved through rewards. According to Verheij (2021), if the guests choose not to get their room cleaned just because they stayed for two nights, they could be rewarded a drink in the bar - "..such initiatives will certainly be looked at in the future - I have no doubt about that.." (Verheij, Comwell, Interview, 2021).

As all three hotels can agree on, it is also very important to educate the guests on sustainability and the hotel's sustainable efforts. In the case of Sinatur, since they are B2B focused, they always try to educate the companies that would like to host a conference at their hotels, on why they only serve locally grown food, why there are no red meat or international soda brands options on the menu card (Nielsen, Sinatur Hotels, Interview, 2021). Moreover, Guldsmeden tries to educate their guests through the signs on the wall, such as "hang your towel if you will reuse it", putting up a sign with no need of cleaning that certain day, or educating the guests why it's better to take not such long showers (Aggersborg, Guldsmeden Hotels, interview 2021).

These factors make the hotel guests aware of certain practices that the hotel does to decrease the CO2 emissions or minimize energy and water consumption for instance. The setback of these educational notes/talks can be the fact that there will always be some guests who will see these initiatives only as the 'hotel trying to save money. It is correct that being sustainable on the side of guests helps to save expenses for the hotels as well, however, as Kirsten evaluates "it's a win-win" because it also makes the hospitality industry more sustainable if all the involved parties work to reach the same goal - through collaborations, it proves to be easier (Aggersborg, Guldsmeden Hotels, Interview, 2021).

When talking about collaboration and partnership beats the competition, it can be argued that the power of the 'competitive advantage' is not as relevant when referring to the green movement, which goes beyond the usual idea of 'being the best. This has instead shifted towards 'making a change', sharing knowledge, data, and ideas with everyone in the industry. Verheij (2021) from Comwell Hotels uses an example, where this idea of sharing with the 'competitors' has encouraged a form of 'healthy - school-yard competition'. A specific example of this is seen when Comwell, just before the pandemic started, started increasing its focus on food waste. In cooperation with four other Danish hotel chains, Comwell started to measure and weigh every form of food waste within all their hotels:

"..where we can benchmark and learn from one another. And it can become a little competitive internally, where we at Comwell are saying: 'They better not beat us up in Aalborg with less food waste!', and it is healthy, we can learn something from each other within the industry, and say: 'how can it be that Sinatur is so good at it at Frederiksdal

Hotel? - Could we maybe ask them how they got it so far down?' I think it is healthy and the right path.."

#### Verheij, Comwell Hotels, Interview, 2021

This kind of commitment was also supported by Nielsen (2021) from Daka Refood, who specifically uses Comwell as an example when talking about sharing and exposing themselves to the industry: "But Comwell, in our eyes, is really a frontrunner within that sector, and one of those who dare to present it to the market and talk openly about it. Because we often experience this as a barrier, both in the hotel and restaurant sector, but also elsewhere." (Nielsen, Daka Refood, Interview, 2021) Nielsen argues that exposing yourself to the industry can be seen as a barrier for some operators but at the same time a motivational factor. Comwell showed that they were not 100% sustainable, and had areas they needed to work on, which on one hand, can be motivational for others. On the other hand, it can be considered a barrier for other operators to promote sustainable commitments to the public, due to potential negative effects that can arise on one's own business.

#### 5.7. The effectiveness of sustainable certificates and awards

Different sectors within the tourism and travel sector have begun their sustainable change within their business to corporate with the increasing demand for sustainability. The Danish catering company Meyers is currently working on becoming the Nordic Regions' first and largest B-corp certified company working with food. According to Meyers, a sustainable transformation of our food systems is about more than climate, it is also about biodiversity, marine environment, clean water, and a number of other environmental parameters. Since March 2021 the company have had an objective of reducing their CO2-emissions from raw materials by 30 % in 2030 and 50% reduction in 2050, including other initiatives (Meyers vil være Nordens første, store fødevare-B Corp, CSR.dk, 2021)

Also, GetYourGuide, one of the world's leading tours and activities booking platforms recently joined the Global Sustainable Tourism Council (GSTC) - with a commitment to ensuring a more sustainable encouragement within the experience industry. Recently, GetYourGuide started promoting sustainable activities and tour operators with an 'eco-badge' to verify their responsibility to meet the global standards of sustainability. These are vetted through third-

party sustainability certification agencies using the GSTC-recognized standard to ensure accountability and transparency. GetYourGuide VP of Sales and Supply, Mathis Boldt (2021) stated that by emphasizing and promoting operators and attractions that follow the GSTC criteria, as well as other sustainability certifications if creates transparency for the sustainable conscious traveler, influences its suppliers, and inspires others to follow lead (GetYourGuide Joins GSTC, 2021).

A similar initiative has also been adopted by Booking.com, one of the world's leading digital booking platforms. In November 2021 Booking.com launched their 'Travel Sustainable Badge'. The concept of the badge is to offer credible, globally relevant sustainability measures that will offer highly desirable information to travelers around the world who are looking for sustainable travel options. According to Booking.com (2021), the sustainable badge is applicable and available to all forms of accommodation as long as the facility has applied a combination of sustainable initiatives that meets the required impact threshold of that destination. Alongside industry experts, Travelyst, as well as current sustainable accommodation standards already registered, booking.com identified five key areas which had the most impactful practices for a property; waste, energy and greenhouse gases, water, supporting local communities, and protecting nature, including 32 specific measures of sustainability that can be implemented, such as switching to LED lighting, using 100% renewable energy and many others. This includes working with sustainability consultancy Sustainalize to incorporate a destination's environmental and/or social impact of the practices to provide accurate calculations of impacts related to specific destinations, e.g., if a destination is prone to drought, it will be considered more impactful when water-reducing initiatives are implemented within the accommodation. According to CEO of GSTC, Randy Durband: "Booking.com has methodically developed, tested, and refined this method drawing from GSTC's expertise and the globally recognized GSTC Criteria, lending strong credibility to the framework that has been so carefully crafted.". The overall objective of the badge is to advance transparency and a way to easily identify more sustainable accommodation options around the world (Booking.com, 2021).

Considering the tourism and hospitality sector, there have appeared many different certifications and eco-labels in the last period, some more significant than others, which can in the end make it confusing for the consumer. Consumers then meet with the hotels having

a certification, but if they are not experts in the field, they might not know what certain certifications mean and how much those make the hotel chosen by the consumer more sustainable than others (Font, 2002; Reelfs, Green Destinations, Interview 2021). According to Font (2002), the international labels can be a bit more profitable for the hotels in the sense of creating 'strategic alliances' and helping to develop penetrations of a specific market. As Font (2002) further develops, these alliances, or possibly merges, can show a significant potential for the hotels in order to create stronger and more powerful brands which happen through communicating the 'green message' to the international market. Font (2002) mentions Green Globe certification is one of the most credible. Peter Reelfs from Green Destinations (2021) elaborates on this fact of there being so many and different certifications, that the clear recommendation would be for the hotels to acquire certifications and labels which are also internationally known (he mentions e.g., Green Key, Nordic Swan), and which people - consumers will be able to see 'again, and again'. Only that way, as he further explains, the hotels can assure that the potential or current guests will trust them fully with their sustainable operations (Reelfs, Green Destinations, Interview, 2021).

Guldsmeden Hotels acquired the Green Globe certification and debated mostly on the difficulty of putting the documentation together. As Kirsten Aggersborg (Guldsmeden, Interview, 2021) explained: "...all the documentation, because it was just so much that we had to.. and obviously I think that's really cool that they demanded that kind of certainty, because some certifications are little too easy to achieve without proper documentation." Debating on the less complex certifications, which as Font (2002) mentioned are just local and less known, which doesn't fulfill the importance of certifications to its full potential.

As mentioned in the findings, Comwell has been the recipient of the Sustainable Brand Index Award for three years in a row and promotes themselves as being the most sustainable hotel chain in Denmark: "Comwell is Denmark's most sustainable hotel chain" (Comwell.com, n.d.). While it is easy to argue that Comwell's commitment to sustainability, the UNs sustainable development goals, and the green movement has a strong presence within the whole of the organization, it can also be discussed whether this statement is in fact correct, and whether it can be seen as an example of mild greenwashing? According to a statement from Astrid Carl from GreenMoves, it cannot be proven that a company is the 'most sustainable' hotel chain in Denmark:

"..Are you aware that Comwell is really running a risk in their marketing?... it says we are the most sustainable hotel chain in Denmark – and if you go ask Forbrugerombudsmanden (Danish Consumer Ombudsman) that is the perfect way to not go about – you cannot claim to be the 'most' or the 'more' sustainable.."

#### Carl, GreenMoves, Interview, 2021

When looking at the definition of the 'Guidance on the use of environmental and ethical claims, etc. 2014' from the Danish Consumer Ombudsman, guidance point 9.2, states: "...The statements in the marketing must be consistent with the scope of the company's environmental or ethical initiatives. For example, marketing must not be exaggerated." In addition, guidance point 6.4 mentions: "...It must be possible to document the accuracy of statements of facts.." (Vejledning om brug af miljømæssige og etiske påstande m.v., Ombudsmanden, 2014) On the other hand, guidance point 8.3, states: "...Regards to this, it is the Danish Consumer Ombudsman opinion, that at present time it is difficult to set general requirements for the marketing of sustainable products, activities or companies.." (Vejledning om brug af miljømæssige og etiske påstande m.v., Ombudsmanden, 2014).

Due to difficulties with the broad term of 'sustainability', it is argued that it is difficult to set requirements for statements like Comwell's. On the other hand, it also states that sufficient documentation is needed to prove the accuracy of the statement. If we investigate the report: Sustainable Brand Index Award from 2021. Firstly, the study shows that the overall score of Comwell Hotels was between 41%-61%, of a score between 0%-200%, and placed 35th among the businesses included in the study. Secondly, the 'winner' within each industry is based on the brand that is 'perceived as the most sustainable brand' - according to Danish consumers. Finally, the overall study is only based on five hotel chains in Denmark, specifically: Comwell, Scandic, Zleep Hotels, Radisson Blu, Best Western, and Arp-Hansen (Official Report, Denmark — SUSTAINABLE BRAND INDEX, 2021).

Overall, the findings indicate that Comwell is strongly committed to sustainability, to a point where every decision made, sustainability is the main contributor before any execution. Also, the Sustainable Brand Index Award does set Comwell as the most sustainable hotel chain in Denmark, although the statement can be argued to be exaggerated considering the limited

number of hotels included in the study e.g., Sinatur Hotels and Guldsmeden Hotels, and the fact that it is based on 'perception' among Danish customers. Moreover, according to the findings, it could be argued that for example Sinatur Hotels have a stronger passion for sustainability and 2are generally more committed to sustainable activities compared to hotels such as Comwell. Also taking into consideration that Comwell has almost three times as many hotels as Sinatur, at more competitive prices. It could be argued that Comwell has a stronger brand image among consumers compared to Sinatur. On the other hand, this does indicate strong sustainable marketing activities from Comwell, but also that this statement could generally be deemed misleading, and even considered a mild form of greenwashing.

Font & Tribe (2001) study points out similar issues around such awards. Usually, these performance awards are prizes to the top-performing companies normally run around an event and public presentation. Where these awards are easier to use due to the cost compared to certifications, as well as the award is based on the justification of the 'winner' against other players - like the example with Comwell - instead of including rankings from all applicants, as well as considering applicants that are not included in the competition. On the other hand, Font & Tribe (2001) also argue that prizes can be used as motivational inspiration within the industry, including the perception of role models. Moreover, such awards create a form of commitment to environmental management and promise a willingness to improve. While sustainable awards can be utilized as motivational inspiration within the industry as well as consumers, according to Font & Tribe (2001) it can also be used as a cheaper and easier way for companies to promote their sustainable path. This may also be easier in the eyes of the consumer to identify a 'green or sustainable award', compared to the many certifications which can easily create confusion of which are 'good enough'? This adds up with the comment from Verheij (2021) when asked about the interest of gaining the B-Corp certification; "If we consider that it could give us something commercially, then you have to go for it, but otherwise I have a hard time with it." (Verheij, Comwell Hotels, Interview, 2021).

# 5.8. The responsibility of the Sustainable Development Goals

Adelson et. al. (2008) argues that sustainable development is a framework, which, among others, helps to improve water supply, protect endangered environments, helps to encourage installations of irrigation systems, and fight poverty in developing countries. As Jones et. al.

(2017) reflects on the launch of SDGs by the United Nations as a tool of calling for the global business community to play a central role to achieve these goals. As he further elaborates, specifically the hospitality industry has a wide scope of impacts on the environment, as well as social aspects. Together with being one of the driving forces in the global economy, it is crucial that the hospitality industry tries to contribute to the SDGs and implements sustainability procedures (Jones, et. al., 2017).

According to UNWTO (2015), there are several goals, which the hospitality industry can contribute to. As a Goal 1 (No Poverty) UNWTO (2015) refers to the hospitality industry as "one of the largest and fastest-growing economic sectors", which creates job opportunities and therefore provides income. Another innovative way to contribute to Goal 1 can be also supporting local organizations which help to fight not only poverty but also inequality. A great example of such actions could be Guldsmeden Hotels, which donate the income from bike rentals to the Sports Confederation in Denmark and are also an investor of DIFs Get2Sport, where they directly influence the participation of children from very low-income or no-income families, to be part of the community and play sports (Aggersborg, 2019).

As a Goal 2 (Zero Hunger), UNWTO (2015) argues that "tourism can spur agricultural productivity by promoting the production, use, and sale of local produce in tourist destinations". This point goes hand-in-hand with the actions of Sinatur Hotels, which explicitly use only locally grown products and do not import from other countries (Nielsen, Sinatur Hotels, Interview, 2021). However, this fact refutes Kirsten Aggersborg from Guldsmeden, which says '…I think it's important to look a bit wider and maybe see more globally than only locally…', and further argues that using only local products and always a locally grown food '…it is no way sustainable to think like that…' (Aggersborg, Guldsmeden, Interview, 2021).

By Goal 13 (Climate Action), UNWTO (2015) explains that the tourism and hospitality industry is highly affected by the changing climate and global warming and therefore, it is '..in the sector's own interests to play a leading role in the global response..'. Together with that, UNWTO (2015) elaborates that the actions such as '..lowering energy consumption, shifting to renewable energy sources, particularly in the transport and accommodation sector..' can help to solve the most challenging issues. Ioannidis, et. al. (2021) in this case refers to the 3Rs strategy (Reduce, Reuse, Recycle), where he explains that the applicability of this strategy in

the hospitality industry is mainly focused on the areas of energy and water consumption, together with waste handling. As Ioannidis, et. al. (2021) further explains tourism and hospitality implement initiatives connected to these areas because thanks to these they can subsequently reduce their emissions, as well as improve their impact on the environment. All of the three hotel chains, Sinatur Hotels, Comwell Hotels, and Guldsmeden Hotels have different ways of implementing innovations in their operations that support these processes. What concerns all three hotels, they pay strong attention to their food waste, it's limiting, and recycling (Nielsen, Sinatur, Interview, 2021; Verheij, Comwell, Interview, 2021; Aggersborg, Guldsmeden, Interview, 2021). All three hotel chains, at the same time, focus also on tackling the energy consumption issue and are trying to reduce their consumption by, for example, implementing turning lights off the system, electricity in the room only with the guests' key card connected or switching to only certified supply of energy from the Danish wind turbines (Nielsen, Sinatur Hotels, Interview, 2021; Verheij, Comwell Hotels, Interview, 2021; Aggersborg, Guldsmeden, Interview, 2021). Tackling the water consumption issue is a bit more complex in the sense that the hotels still need to provide a guest great experience and cannot limit their consumption of water. However, Guldsmeden Hotels have in their newest hotel (Bryggen) implemented a system of orbital showers, where the water circulates and loses only a minimum temperature throughout the process (Aggersborg, 2019; Aggersborg, Guldsmeden, Interview, 2021). In this way, they not only save on the energy for heating, and on water consumption, however, the showers are supposed to pay out in 2 years of their usage, says Kirsten Aggersborg (Guldsmeden, Interview, 2021). Also, Comwell provides several goals of reducing its energy, water, and heating on a yearly basis by at least 2% (Thinking about sustainability and recycling is our strategy | Comwell, 2021).

When it comes to technological innovations, Huesemann (2003) is a bit sceptical toward technology as a solution for transition to sustainability. He argues that the technology will only 'postpone' the crucial environmental and social problems unless the continuing growth of population and consumption is limited (Huesemann, 2003). As Jones, et. al. (2017) explains that there is a piece of missing information on how, in the right way, can be sustainability and responsible consumption and production, implemented into the industry's operations.

As he further elaborates, many hospitality companies are facing the struggle to understand if to create their sustainable strategies according to a certain goal number from the SDGs, or whether to continue their sustainability strategy and further map them into the SDGs, in terms that the SDGs can be managed as commercially beneficial, added to existing strategies (Jones, et. al., 2017). When looking at Comwells annual report they mention the main SDGs (Goal: 4, 7, 8 & 12) where they can actively make a change, as well as including seven other SDGs which they in some way or another can incorporate into the business (Comwell, Årsrapport p. 25, 2020). On the other side, Guldsmeden Hotels are developing their sustainable strategies and only project the SDGs in them later, and therefore, they do not have a special focus on SDGs (Aggersborg, Guldsmeden, Interview, 2021). At the same time, as Jones, et. al. (2017) states, it is difficult for companies to go back to creating new strategies according to a certain version of 'what is the best and therefore, sustainability and sustainable development can be argued as a 'controversial topic because it means different things to different people' — and therefore, meaning different things to different businesses as well (Aras & Crowther, 2008). According to this statement can be debated many topics and actions of different hotels, for example, already mentioned the topic of thinking globally (Guldsmeden Hotels) vs. thinking locally (Sinatur Hotels) as the most sustainable procedure.

The choice of the sustainable focus is also very often influenced by the companies' stakeholders, which can be identified as Goal 17 (Partnerships for the Goals), where the shared value is created. Wyndham Worldwide (2011) mentions two examples, which can be combined in the sense of stakeholders' involvement and influence – 1. stakeholders are significant drivers of our sustainability program', 2. 'Shareholders keep us focused to make a difference and to drive for results. The first example can be seen in Guldsmeden Hotels, where their focus on sustainability is not only driven by their will, but also by their guests. As Kirsten Aggersborg elaborates, their guests became aware of what sustainability means and expect that from them (Aggersborg, Guldsmeden, Interview, 2021). On the other hand, the second example can be confirmed by Comwell Hotels, where as Simon Verheij explains, companies such as Novo Nordisk and Danske Bank have required them to be sustainable before signing a contract with them (Verheij, Comwell, Interview, 2021). At the same time, in the case of Guldsmeden, their suppliers, Årstiderne, help them to keep up to the best sustainable standards possible and teach them about their environmental impact through food supply (Aggersborg, Guldsmeden, Interview, 2021).

At last, Jones et. al. (2017) argues that the commitment to corporate sustainability is often driven by the business' needs, efficiency, and favors rather than to be built around the concern for sustainability. This can be argued by the Guldsmeden and Sinatur Hotels, which both have been rather established as sustainable businesses and have sustainability incorporated deeply in their mindsets (Aggersborg, Guldsmeden, Interview, 2021; Nielsen, Sinatur Hotels, Interview, 2021). On the other hand, Comwell Hotels are led by economic efficiency when applying sustainable goals, which supports Jones' statement (Verheij, Comwell Hotels, Interview, 2021).

As already mentioned, there is a missing framework to the United Nations SDGs and how precisely to incorporate such a table with all the 17 Goals into the businesses. There are many ways to do that and as Aras & Crowther (2008) explained, 'sustainable development' can be translated into different actions according to the different strategies. The most extensively used definition of sustainable development is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987).

## 6. Conclusion

In recent years there has been a growing awareness around climate, environmental, and social issues related to tourism around the world. The increased media attention around the global climate crisis, including the Covid-19 pandemic, can be considered one of the main motivators for the increasing sustainable interest from the government, businesses, and consumers (WTTC, 2021; Sorin & Sivarajah, 2021; Dogru et al., 2020; Işık, Sirakaya-Turk & Ongan, 2019).

From the comparative analysis carried out, we can conclude that all three hotel chains provide a strong commitment to sustainable development within the Danish hotel sector. Many of which have been developed in recent years, proving an increased interest and overall obligation in reducing their individual impact on the environmental and social issues that arise from the hotel industry. The findings do indicate a deeper passion within the field of sustainability from specifically two hotel chains (Sinatur Hotels & Conference Centre and Guldsmeden Hotels), due to evidence suggesting an 'above and beyond' responsibility in making a change, not only within the hotel sector in Denmark but also related to the preservation of nature and further commitment to NGOs locally and in developing countries. Other evidence does also suggest that sustainable initiatives, within all three hotels, are utilized as commercially beneficial within the organization to provide a strong sustainable image, which can be argued to increase profits, as well as being a motivational inspiration for other businesses, which concurs with views, as expressed from Peattie (1992) and Cannon (1994). Moreover, each hotel provides several examples of a change towards a circular economy, waste management, energy and water consumption, reduction of carbon dioxide, and especially food waste. In addition, the hotels reveal a strong collaboration and sharing of knowledge between competitors in the sector as well as other associated suppliers, and partners within the market. Essentially indicating a shift in paradigm, where sustainable change and shared knowledge are of greater value compared to being a competitive advantage for the individual business.

Specifically, all three hotel chains show initiatives related to a circular economy, and the basic 3Rs, such as Reduce, Reuse and Recycle. Reductions have been seen within several initiatives, such as limiting the amount of food offered at buffets and restaurants, including more

vegetables and plant-based options, and reducing the amount of red meat served, as well as the reduction of water and energy consumption, waste material, and plastic packaging. Reuse is seen within their initiatives of reusing green energy such as, for example, charging electric cars, as well as coffee wastage reused within the food and as fertilizers. Recycling is seen within the food waste that is sent to partner suppliers to recycle it into biogas and fertilizers, bed linen created into t-shirts and aprons. Furthermore, evidence shows that the hotel chains have adopted further policies related to the additional Rs within the 6Rs, (Repair, Rethink, and Refuse). Refuses have been seen within initiatives such as refusing to use food that has been brought in on a flight, refusing to use exotic vegetables and fruits that need to be transported from long distances (avocado, oranges, melons, etc.). Rethinking can be seen in instances of guest involvement and convincing them to make a change within the hotel's facilities, offering meat-free days, or simply offering guests easily recyclable products that reduce hotel operations costs, such as the example of replacing glass bottles with dispensers. Nevertheless, it can be argued that all three hotel chains are still in the emerging phase within the field of sustainability, where many sustainable initiatives within the circular economy are not adopted to a high degree, just yet, and further improvements could potentially still be enhanced within several areas within all hotel chains.

Additionally, the research offered a greater understanding of certain challenges, market demands, as well as a commitment to the SDGs, and the use of certifications and awards within the Danish hotel sector. From the data gathered, we can conclude that increased government involvement is needed within the hotel sector, to keep up with sustainable demand. The results show a limited contribution to the field of sustainability, not just within the hotel sector, but others too, in which evidence suggests that the government is too focussed on new technological innovation, which is seen as being unrealistic compared to their commitment to reducing the CO2-emissions before 2030 (Hjøllund & From, 2020). In essence, the findings indicate several 'low hanging fruits' which could be seen as small, but realistic sustainable movements.

Overall data suggest that sustainable changes are created by large corporations, to comply with customer and market demands locally, and abroad. In terms, this has created a sort of domino effect, with larger businesses demanding sustainable commitment, and smaller businesses needing to change the mindset of 'business-as-usual' to keep up with growing

demands, to maintain a competitive advantage. Moreover, due to lack of government regulations, the findings indicate that self-regulative initiatives are established by hotels, as well as other businesses in the market, to keep up with demand, and at the same time, prepare for potential and sudden regulations that may be implemented, as we come closer to 2030.

The study also sees an increasing interest in certifications and awards. An area that has been widely discussed due to the lack of credibility, potential of greenwashing, and difficulties for customers understanding what the different certifications mean (Font, 2002). The same goes for sustainable certifications that can provide a form of motivational inspiration for guests, partners, and other businesses, but on the other hand can be used as a cheaper alternative to certifications, which can lead to a lack of credibility and transparency (Font & Tribe, 2001). A common element seen within all three hotel chains. As mentioned earlier, the findings indicate a strong passion for sustainable change within Sinatur Hotels and Guldsmeden Hotel, with many projects related to areas not directly focussed on the hotel itself. This is seen again with the use of highly justified and sustainable certification (e.g., B-Corp & Green Globe), which indicates a strong commitment within the field of sustainability. Moreover, the study also finds that some sustainable awards can be used as marketing tools to promote a greener image, but lacks credibility, and could result in greenwashing.

Likewise, each hotel applies the UNs Sustainable Development Goals as a principle for the sustainable strategies that they apply within the hotel. Mainly with SDGs Goal 12: 'Responsible Consumption', and Goal 7: 'Production and Affordable and Clean Energy' as these are seen as being the areas in which the hotels can easily make an impact. Furthermore, we can conclude that each hotel includes several other SDGs within their operations, as well as in marketing-related activities. Some which show detailed descriptions of their commitment to each selected SDG, and others which could be argued to be utilized as commercial advantages to be viewed as being 'greener'. A view that concurs with Jones et. al. (2017) as to which degree current sustainable initiatives are added onto SDGs or new initiatives are developed to accommodate new SDGs. In the same way, it can be concluded that all three hotel chains are focused on making an impact that matches with certain SDGs but at the same time use the SDGs to maintain or promote a 'greener' image.

Finally, the methods used within this research have discovered certain limitations. Firstly, due to sustainable initiatives being relatively new within the hotel industry, including a lack of yearly records, it was not possible to create extended, relevant, and informative data on the actual reduction of each hotel's consumption. Secondly, the gap of academic research focused on the Danish hotel sector, and its sustainable advancement as such. This has caused that the generic academic sources were used and applied or discussed in combination with the findings gained from the three Danish hotel chains. At the same time, the external stakeholders - experts were included in the primary data collection to support or refute several statements discussed rather in the academic papers or with the hotel representatives. All the data has been collected with the aim of as high relevance as possible, despite the gap in academic research.

## 7. References

Adelson, G., Engell, J., Ranalli, B. and Van Anglen, K., 2008. Environment: An Interdisciplinary Anthology. Yale University Press, pp.138-151. Available at: <a href="https://www.jstor.org/stable/j.ctt5vkqnr.13">https://www.jstor.org/stable/j.ctt5vkqnr.13</a> [Accessed 27 December 2021].

Aggersborg, K., 2019. Guldsmeden Hotels Sustainable Management Plan 2019. [online] Guldsmedenhotels.com. Available at: <a href="https://guldsmedenhotels.com/wp-content/uploads/2019/08/Guldsmeden-Hotels-Sustainable-Management-Plan-2019.pdf">https://guldsmedenhotels.com/wp-content/uploads/2019/08/Guldsmeden-Hotels-Sustainable-Management-Plan-2019.pdf</a> [Accessed 3 December 2021].

Aras, G. and Crowther, D., 2008. Governance and sustainability. Management Decision, [online] 46(3), pp.433-448. Available at: <a href="https://www.emerald.com/insight/content/doi/10.1108/00251740810863870/full/html">https://www.emerald.com/insight/content/doi/10.1108/00251740810863870/full/html</a> [Accessed 28 December 2021].

Banana Link. 2021. Sustainability Standards & Certifications | Fairtrade, Organic & Rainforest Alliance. [online] Available at: <a href="https://www.bananalink.org.uk/ethical-certification/">https://www.bananalink.org.uk/ethical-certification/</a> [Accessed 21 October 2021].

BBC News. 2021. Coldplay: Band ready for backlash over eco-friendly world tour. [online] Available at: <a href="https://www.bbc.com/news/entertainment-arts-58898766">https://www.bbc.com/news/entertainment-arts-58898766</a>> [Accessed 7 December 2021].

Bill Bramwell & Bernard Lane (2010) Sustainable tourism and the evolving roles of government planning, Journal of Sustainable Tourism, 18:1, 1-5, DOI: 10.1080/09669580903338790

Booking.com, 2021. Booking.com Launches First-of-its-Kind Travel Sustainable Badge to Lead Industry in Showcasing a Wider Variety of Sustainable Stays. [online] Booking.com Launches First-of-its-Kind Travel Sustainable Badge to Lead Industry in Showcasing a Wider Variety of Sustainable Stays. Available at: <a href="https://globalnews.booking.com/bookingcom-launches-first-of-its-kind-travel-sustainable-badge/">https://globalnews.booking.com/bookingcom-launches-first-of-its-kind-travel-sustainable-badge/</a> [Accessed 6 December 2021].

Bramwell, B. and Alletorp, L., 2001. Attitudes in the Danish tourism industry to the roles of business and government in sustainable tourism. *International Journal of Tourism Research*, 3(2), pp.91-103.

Buckley, J., 2021. Venice bans cruise ships from the city center -- again. [online] CNN. Available at: <a href="https://edition.cnn.com/travel/article/venice-cruise-ship-ban-government/index.html">https://edition.cnn.com/travel/article/venice-cruise-ship-ban-government/index.html</a> [Accessed 6 December 2021].

C. Michael Hall (2013) Framing behavioural approaches to understanding and governing sustainable tourism consumption: beyond neoliberalism, "nudging" and "green growth"?, Journal of Sustainable Tourism, 21:7, 1091-1109, DOI: 10.1080/09669582.2013.815764

Cannon, T. 1994. Corporate Responsibility. A textbook on Business Ethics, Governance, Environment: Roles and Responsibility. Pitman: London

Chen, A., 2021. This revived architectural landmark could be the first net-zero hotel in the US. [online] CNN. Available at: <a href="https://edition.cnn.com/travel/article/hotel-marcel-net-zero-">https://edition.cnn.com/travel/article/hotel-marcel-net-zero-</a>

becker-c2e-spc-intl/index.html?fbclid=lwAR3lZk8ireItW-anvC9e10Z5qXgJKYrL9cPq9J\_gnTjOkMV0G-DETgcXo3E> [Accessed 7 December 2021].

Comwell Hotels. n.d. Comwell Hotels. [online] Available at: <a href="https://comwell.com/en/">https://comwell.com/en/">https://comwell.com/en/</a> [Accessed 8 December 2021].

Comwell, 2020. Comwell Hotels Årsrapport 2020. <a href="https://comwell.com/om-comwell/arsrapporter">https://comwell.com/om-comwell/arsrapporter</a>

Comwell.com. 2021. About Comwell | 50 years of experience | Comwell. [online] Available at: <a href="https://comwell.com/en/om-comwell">https://comwell.com/en/om-comwell</a> [Accessed 13 November 2021].

Comwell.com. 2021. Comwell Care - Sustainable Hotel Chain | Comwell. [online] Available at: <a href="https://comwell.com/en/om-comwell/care">https://comwell.com/en/om-comwell/care</a> [Accessed 15 November 2021].

Comwell.com. 2021. Comwell tildeles tre priser ved momondo Climate Award | Comwell. [online] Available at: <a href="https://comwell.com/nyheder/comwell-tildeles-tre-priser-ved-momondo-climate-award">https://comwell.com/nyheder/comwell-tildeles-tre-priser-ved-momondo-climate-award</a> [Accessed 19 November 2021].

Comwell.com. 2021. Flere og flere vælger en grøn samarbejdspartner | Comwell. [online] Available at: <a href="https://comwell.com/moede-og-konference/insight/groen-samarbejdspartner">https://comwell.com/moede-og-konference/insight/groen-samarbejdspartner</a> [Accessed 15 November 2021].

Comwell.com. 2021. Thinking about sustainability and recycling is our strategy | Comwell. [online] Available at: <a href="https://comwell.com/en/om-comwell/care/vi-taenker-baeredygtighed-og-genanvendelse-hele-vejen-rundt">https://comwell.com/en/om-comwell/care/vi-taenker-baeredygtighed-og-genanvendelse-hele-vejen-rundt</a> [Accessed 16 November 2021].

CONCITO. 2021. Den store klimadatabase. [online] Available at: <a href="https://concito.dk/projekter/store-klimadatabase">https://concito.dk/projekter/store-klimadatabase</a> [Accessed 29 December 2021].

Csr.dk. 2021. *Meyers vil være Nordens første, store fødevare-B Corp*. [online] Available at: <a href="https://csr.dk/meyers-vil-v%C3%A6re-nordens-f%C3%B8rste-store-f%C3%B8devare-b-corp">https://csr.dk/meyers-vil-v%C3%A6re-nordens-f%C3%B8rste-store-f%C3%B8devare-b-corp</a> [Accessed 22 December 2021].

D.A. Tasci, A., 2017. Consumer demand for sustainability benchmarks in tourism and hospitality. Tourism Review, [online] 72(4), pp.375-391. Available at: <a href="https://www.emerald.com/insight/content/doi/10.1108/TR-05-2017-0087/full/html">https://www.emerald.com/insight/content/doi/10.1108/TR-05-2017-0087/full/html</a> [Accessed 23 December 2021].

Dansk Erhverv. 2021. CSR Corporate Social Responsibility. [online] Available at: <a href="https://www.danskerhverv.dk/politik-og-analyser/csr/">https://www.danskerhverv.dk/politik-og-analyser/csr/</a> [Accessed 27 October 2021].

Dansk Erhverv. 2021. Dansk Erhverv: Behov for fokus på CSR og Verdensmål i SMV'er. [online] Available at: <a href="https://www.danskerhverv.dk/presse-og-nyheder/2019/februar/dansk-erhverv-behov-for-fokus-pa-csr-og-verdensmal-i-smver/">https://www.danskerhverv.dk/presse-og-nyheder/2019/februar/dansk-erhverv-behov-for-fokus-pa-csr-og-verdensmal-i-smver/</a> [Accessed 27 October 2021].

Delmas, M. and Burbano, V., 2011. The Drivers of Greenwashing. California Management Review, 54(1), pp.64-87.

Demir M, Rjoub H, Yesiltas M (2021) Environmental awareness and guests' intention to visit green hotels: The mediation role of consumption values. PLoS ONE 16(5): e0248815. https://doi.org/10.1371/journal.pone.0248815

Den store klimadatabase. n.d. Den store klimadatabase. [online] Available at: <a href="https://denstoreklimadatabase.dk/">https://denstoreklimadatabase.dk/</a> [Accessed 29 December 2021].

DIF. n.d. Om DIF get2sport. [online] Available at: <a href="https://www.dif.dk/samfundsansvar/dif-get2sport/om">https://www.dif.dk/samfundsansvar/dif-get2sport/om</a> [Accessed 16 December 2021].

Dogru, T., Bulut, U., Kocak, E., Isik, C., Suess, C. and Sirakaya-Turk, E., 2020. The nexus between tourism, economic growth, renewable energy consumption, and carbon dioxide emissions: contemporary evidence from OECD countries. Environmental Science and Pollution Research, 27(32), pp.40930-40948.

Dopfer, K., Foster, J. and Potts, J., 2004. Micro-meso-macro. Journal of Evolutionary Economics, [online] 14(3), pp.263-279. Available at: <a href="https://doc.rero.ch/record/309690/files/191\_2004\_Article\_193.pdf">https://doc.rero.ch/record/309690/files/191\_2004\_Article\_193.pdf</a> [Accessed 27 October 2021].

Dunford, J., 2020. 'Things have to change': tourism businesses look to a greener future. [online] the Guardian. Available at: <a href="https://www.theguardian.com/travel/2020/may/28/things-had-to-change-tourism-businesses-look-to-a-greener-future">https://www.theguardian.com/travel/2020/may/28/things-had-to-change-tourism-businesses-look-to-a-greener-future</a> [Accessed 6 December 2021].

Einarsson S. and Sorin, F. "Circular Economy in travel and tourism: A conceptual framework for a sustainable, resilient and future proof industry transition", CE360 Alliance, 2020

Europarl.europa.eu. 2015, updated: 2021. Circular economy: definition, importance and benefits | News | European Parliament. [online] Available at: <a href="https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits">https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits</a> [Accessed 19 October 2021].

EY Parthenon, OC&C, Booking.com, 2021. Global accommodation sector: The road to net zero emissions. [online] EY Parthenon, OC&C, Booking.com. Available at: <a href="https://app.box.com/s/4ffylkg4jetbx98infh7wowd6l89m0hc">https://app.box.com/s/4ffylkg4jetbx98infh7wowd6l89m0hc</a> [Accessed 7 December 2021].

Fang-I Kuo, Wei-Ta Fang & Ben A. LePage (2021) Proactive environmental strategies in the hotel industry: eco-innovation, green competitive advantage, and green core competence, Journal of Sustainable Tourism, DOI: 10.1080/09669582.2021.1931254

Field, BC. 1994. Environmental Economics. An Introduction. McGraw-Hill: New York.

Firth, T. and Hing, N., 1999. Backpacker hostels and their guests: attitudes and behaviours relating to sustainable tourism. Tourism Management, [online] 20(2), pp.251-254. Available at: <a href="https://www.sciencedirect.com/science/article/abs/pii/S0261517798000764">https://www.sciencedirect.com/science/article/abs/pii/S0261517798000764</a> [Accessed 23 December 2021].

Foedevarestyrelsen.dk. n.d. Smiley. [online] Available at: <a href="https://www.foedevarestyrelsen.dk/Kontrol/Smiley">https://www.foedevarestyrelsen.dk/Kontrol/Smiley</a> [Accessed 29 December 2021].

Font, X. and Tribe, J., 2001. Promoting green tourism: the future of environmental awards. *International Journal of Tourism Research*, 3(1), pp.9-21.

Font, X., 2002. Environmental certification in tourism and hospitality: progress, process and prospects. Tourism Management, [online] 23(3), pp.197-205. Available at: <a href="https://www-sciencedirect-com.zorac.aub.aau.dk/science/article/pii/S026151770100084X">https://www-sciencedirect-com.zorac.aub.aau.dk/science/article/pii/S026151770100084X</a> [Accessed 21 December 2021].

Font, X., Elgammal, I. and Lamond, I., 2016. Greenhushing: the deliberate undercommunication of sustainability practices by tourism businesses. Journal of Sustainable Tourism, 25(7), pp.1007-1023.

Gallagher, K., 2021. What Is Greenwashing? Definition and Examples. [online] Treehugger. Available at: <a href="https://www.treehugger.com/what-is-greenwashing-definition-and-examples-5188207">https://www.treehugger.com/what-is-greenwashing-definition-and-examples-5188207</a> [Accessed 26 October 2021].

Garza, N.L. 2011, "Effect of ecolabels in context on perceived sustainability", Undergraduate Honors College thesis, Oregon State University, OR, [online] Available at: <a href="https://ir.library.oregonstate.edu/concern/honors\_college\_theses/4b29b782x">https://ir.library.oregonstate.edu/concern/honors\_college\_theses/4b29b782x</a> [Accessed 19 October 2021].

Ghisellini, P., Cialani, C. and Ulgiati, S., 2016. A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. Journal of Cleaner Production, 114, pp.11-32.

Giddens, A. 2009. The politics of climate change, Cambridge, UK: Polity.

Giuffrida, A., 2021. Italy bans cruise ships from Venice lagoon after Unesco threat. [online] The Guardian. Available at: <a href="https://www.theguardian.com/world/2021/jul/13/italy-bans-cruise-ships-from-venice-lagoon-after-unesco-threat">https://www.theguardian.com/world/2021/jul/13/italy-bans-cruise-ships-from-venice-lagoon-after-unesco-threat</a> [Accessed 19 October 2021].

GoGreen Danmark. n.d. GoGreen Danmark. [online] Available at: <a href="https://gogreendanmark.dk/">https://gogreendanmark.dk/</a> [Accessed 6 December 2021].

Green Globe. n.d. Green Globe standards for sustainable tourism. [online] Available at: <a href="https://www.greenglobe.com/criteria-indicators">https://www.greenglobe.com/criteria-indicators</a> [Accessed 6 December 2021].

Green Key Global. 2021. Green Key. [online] Available at: <a href="https://www.greenkey.global/">https://www.greenkey.global/</a> [Accessed 3 November 2021].

Green Key. 2021. Green Key. [online] Available at: <a href="https://www.greenkey.global/">https://www.greenkey.global/</a> [Accessed 19 November 2021].

Green Key. n.d. Green Key. [online] Available at: <a href="https://www.greenkey.global/">https://www.greenkey.global/</a> [Accessed 6 December 2021].

Green-key.dk. 2020. Comwell sparer 1 tons plastik med pap i stedet for flamingo. [online] Available at: <a href="https://www.green-key.dk/nyt/om-overnatningssteder/2020/10/comwell-sparer-1-tons-plastik-med-pap-i-stedet-for-flamingo/">https://www.green-key.dk/nyt/om-overnatningssteder/2020/10/comwell-sparer-1-tons-plastik-med-pap-i-stedet-for-flamingo/</a> [Accessed 17 November 2021].

Green-key.dk. 2021. Om Green Key / Den Grønne Nøgle. [online] Available at: <a href="https://www.green-key.dk/om-green-key/">https://www.green-key.dk/om-green-key/</a> [Accessed 3 November 2021].

Green-key.dk. 2021. Sinatur Hotel & Konference vinder EU's Miljøpris 2020. [online] Available at: <a href="https://www.green-key.dk/nyt/om-overnatningssteder/2021/03/sinatur-hotel-konference-vinder-eu-s-miljoepris-2020/">https://www.green-key.dk/nyt/om-overnatningssteder/2021/03/sinatur-hotel-konference-vinder-eu-s-miljoepris-2020/</a> [Accessed 29 November 2021].

GSTC. 2021. GetYourGuide Joins GSTC. [online] Available at: <a href="https://www.gstcouncil.org/getyourguide-joins-gstc/">https://www.gstcouncil.org/getyourguide-joins-gstc/</a> [Accessed 6 December 2021].

Guldsmeden Hotels. n.d. Guldsmeden Hotels. [online] Available at: <a href="https://guldsmedenhotels.com/">https://guldsmedenhotels.com/</a> [Accessed 2 December 2021].

Guldsmeden Hotels. n.d. Guldsmeden in Copenhagen. [online] Available at: <a href="https://guldsmedenhotels.com/guldsmeden-hotels-in-copenhagen/">https://guldsmedenhotels.com/guldsmeden-hotels-in-copenhagen/</a> [Accessed 2 December 2021].

Guldsmeden Hotels. n.d. Sustainability. [online] Available at: <a href="https://guldsmedenhotels.com/sustainability/">https://guldsmedenhotels.com/sustainability/</a> [Accessed 2 December 2021].

Guldsmeden Hotels. n.d. Guldsmeden Hotels. [online] Available at: <a href="https://guldsmedenhotels.com/">https://guldsmedenhotels.com/</a>> [Accessed 2 December 2021].

Guldsmeden Hotels. n.d. Guldsmeden in Copenhagen. [online] Available at: <a href="https://guldsmedenhotels.com/guldsmeden-hotels-in-copenhagen/">https://guldsmedenhotels.com/guldsmeden-hotels-in-copenhagen/</a> [Accessed 2 December 2021].

Guldsmeden Hotels. n.d. Sustainability. [online] Available at: <a href="https://guldsmedenhotels.com/sustainability/">https://guldsmedenhotels.com/sustainability/</a>> [Accessed 2 December 2021].

Hall, C. M. 2011a. Policy learning and policy failure in sustainable tourism governance: From first and second to third order change?. *Journal of Sustainable Tourism,*, 19: 649–671. doi:10.1080/09669582.2011.555555

Hansen, E., 2021. Dårligt nyt fra Barcelona: Ét af danskernes yndlingsrejsemål slår hårdt ned på turismen. [online] www.bt.dk. Available at: <a href="https://www.bt.dk/udland/daarligt-nyt-fra-barcelona-et-af-danskernes-yndlingsrejsemaal-slaar-haardt-ned-paa">https://www.bt.dk/udland/daarligt-nyt-fra-barcelona-et-af-danskernes-yndlingsrejsemaal-slaar-haardt-ned-paa</a> [Accessed 19 October 2021].

Harboe, T., 2013. Method and Project Writing. 2nd ed. Frederiksberg: Samfundslitteratur, pp.47-59.

Hart, S. (1995). A natural resource based view of the firm. Academy of Management Review, 20(4), 986–1014. https://doi-org.zorac.aub.aau.dk/10.5465/amr.1995.9512280033

Harvard. n.d. Harvard. [online] Available at: <a href="https://sociology.fas.harvard.edu/files/sociology/files/interview\_strategies.pdf">https://sociology.fas.harvard.edu/files/sociology/files/interview\_strategies.pdf</a> [Accessed 28 November 2021].

Henriksen, D., Richardson, C. and Mehta, R., 2017. Design thinking: A creative approach to educational problems of practice. Thinking Skills and Creativity, [online] 26, pp.140-153. Available at:

<a href="https://www.sciencedirect.com/science/article/pii/S1871187117300597?casa\_token=R4fmlPJsPZ">https://www.sciencedirect.com/science/article/pii/S1871187117300597?casa\_token=R4fmlPJsPZ</a> MAAAAA:6RWvMMUYsfLvHaFLdWpcU5gnzx7KLaoeqSBPRGxti9oE\_I4zIqRba2BQ4QnuIBy1wRkes W8f\_A> [Accessed 30 November 2021].

Heshmati, A., 2017. A review of the circular economy and its implementation. International Journal of Green Economics, [online] 11(3/4), p.251. Available at: <a href="https://www.inderscienceonline.com/doi/pdf/10.1504/IJGE.2017.089856">https://www.inderscienceonline.com/doi/pdf/10.1504/IJGE.2017.089856</a> [Accessed 19 October 2021].

Hjøllund, M. and From, L., 2020. Minister advarer mod klimaafgifter og kalder De Radikale rabiate. [online] Jyllands-posten.dk. Available at: <a href="https://jyllands-posten.dk/politik/ECE12413073/minister-advarer-mod-afgifter-og-kalder-de-radikale-rabiate/?fbclid=lwAR0muAe0GGShHb1XZd4b235OYc9Rtkn8qGJDWF95q\_-fUyPlj4p5dgLsWhA> [Accessed 17 December 2021].

Horesta.dk. 2021. OM HORESTA. [online] Available at: <a href="https://www.horesta.dk/om-horesta/">https://www.horesta.dk/om-horesta/</a> [Accessed 3 November 2021].

Hox, J. J., & Boeije, H. R. (2005). Data collection, primary versus secondary. [Accessed 28 November 2021].

Huesemann, M., 2003. The limits of technological solutions to sustainable development. Clean Technologies and Environmental Policy, [online] 5(1), pp.21-34. Available at: <a href="https://www.researchgate.net/profile/Michael-Huesemann/publication/225671281\_The\_limits\_of\_technological\_solutions\_to\_sustainable\_devel">https://www.researchgate.net/profile/Michael-Huesemann/publication/225671281\_The\_limits\_of\_technological\_solutions\_to\_sustainable\_devel

opment/links/572227a008ae262228a5cce5/The-limits-of-technological-solutions-to-sustainable-development.pdf> [Accessed 28 December 2021].

Iberostar. 2021. Wave of Change. [online] Available at: <a href="https://www.iberostar.com/en/inspiration-guide/responsible-tourism/unstoppable-wave-change-new-iberostar-environmental-project/">https://www.iberostar.com/en/inspiration-guide/responsible-tourism/unstoppable-wave-change-new-iberostar-environmental-project/</a> [Accessed 28 October 2021].

Ioannidis, A., Chalvatzis, K., Leonidou, L. and Feng, Z., 2021. Applying the reduce, reuse, and recycle principle in the hospitality sector: Its antecedents and performance implications. Business Strategy and the Environment, [online] 30(7), pp.3394-3410. Available at: <a href="https://onlinelibrary.wiley.com/doi/10.1002/bse.2809">https://onlinelibrary.wiley.com/doi/10.1002/bse.2809</a> [Accessed 21 December 2021].

Ioannidis, A., Chalvatzis, K., Leonidou, L. and Feng, Z., 2021. Applying the reduce, reuse, and recycle principle in the hospitality sector: Its antecedents and performance implications. Business Strategy and the Environment, [online] 30(7), pp.3394-3410. Available at: <a href="https://onlinelibrary.wiley.com/doi/10.1002/bse.2809?af=R">https://onlinelibrary.wiley.com/doi/10.1002/bse.2809?af=R</a> [Accessed 28 December 2021].

Işık, C., Sirakaya-Turk, E. and Ongan, S., 2019. Testing the efficacy of the economic policy uncertainty index on tourism demand in USMCA: Theory and evidence. Tourism Economics, 26(8), pp.1344-1357.

Jones, P., Hillier, D. and Comfort, D., 2017. The Sustainable Development Goals and the Tourism and Hospitality Industry. Athens Journal of Tourism, 4(1), pp.7-18.

Jones, P., Hillier, D. and Comfort, D., 2017. The Sustainable Development Goals and the Tourism and Hospitality Industry. Athens Journal of Tourism, 4(1), pp.7-18.

Jones, P., Hillier, D. and Comfort, D., 2017. The Sustainable Development Goals and the Tourism and Hospitality Industry. Athens Journal of Tourism, [online] 4(1), pp.7-18. Available at: <a href="https://www.athensjournals.gr/tourism/2017-4-1-1-Jones.pdf">https://www.athensjournals.gr/tourism/2017-4-1-1-Jones.pdf</a> [Accessed 27 December 2021].

Julião, Jorge et al. "Exploring Circular Economy in the Hospitality Industry." Innovation, Engineering and Entrepreneurship. Cham: Springer International Publishing, 2018. 953–960. Web.

Juul, S. and Jensen, M., 2021. Lad os holde madspildsdag – hver dag | Comwell. [online] Comwell.com. Available at: <a href="https://comwell.com/nyheder/lad-os-holde-madspildsdag-hver-dag">https://comwell.com/nyheder/lad-os-holde-madspildsdag-hver-dag</a> [Accessed 15 November 2021].

Juvan, E., & Dolnicar, S. (2014). The attitude-behaviour gap in sustainable tourism. *Annals of Tourism Research*, 48, 76–95.

Kallbekken, S., & Sælen, H. (2013). 'Nudging' hotel guests to reduce food waste as a win-win environmental measure. *Economics Letters*, *119*(3), 325–327.

Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research, 8*(3), 239–260.

Kristjánsdóttir, K. R., Ólafsdóttir, R., & Ragnarsdóttir, K. V. (2018). Reviewing integrated sustainability indicators for tourism. Journal of Sustainable Tourism, 26(4), 583–599. <a href="https://doiorg.zorac.aub.aau.dk/10.1080/09669582.2017.1364741">https://doiorg.zorac.aub.aau.dk/10.1080/09669582.2017.1364741</a>

Kursuslex.dk. 2016. Nu kan tilmed bilerne lade op på Sinatur hotellerne. [online] Available at: <a href="https://www.kursuslex.dk/nyhed/nu-kan-tilmed-bilerne-lade-op-paa-sinatur-hotellerne">https://www.kursuslex.dk/nyhed/nu-kan-tilmed-bilerne-lade-op-paa-sinatur-hotellerne</a> [Accessed 26 November 2021].

Lewrick, M., Link, P., Leifer, L. and Langensand, N., 2020. The design thinking toolbox. 1st ed. New York: John Wiley & Sons Inc.

LinkedIn.com. n.d. Comwell Hotels About. [online] Available at: <a href="https://www.linkedin.com/company/comwell/about/">https://www.linkedin.com/company/comwell/about/</a> [Accessed 8 December 2021].

Ljubica Knezevic Cvelbar, Bettina Grün & Sara Dolnicar (2017) Which hotel guest segments reuse towels? Selling sustainable tourism services through target marketing, Journal of Sustainable Tourism, 25:7, 921-934, DOI: 10.1080/09669582.2016.1206553

Manniche, J., Larsen, K., Broegaard, R. and Holland, E., 2018. Destination: A circular tourism economy A handbook for transitioning toward a circular economy within the tourism and hospitality sectors in the South Baltic Region. 4th ed. Centre for Regional & Tourism Research (CRT).

McKinsey. 2015. Growth within: a circular economy vision for a competitive Europe. Report commissioned by Ellen MacArthur Foundation. [online] Available at: <a href="https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga-404tsz/@/preview/1?o>">https://emf.thirdlight.com/link/8izw1qhml4ga

Metallurgical Research & Technology, Vol. 111 No. 3, pp. 131-136.

Misrahi, T. and Jus, N., 2021. TRAVEL AND TOURISM: ECONOMIC IMPACT 2021. [online] Wttc.org. Available at:

<a href="https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf">https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf</a> [Accessed 6 December 2021].

Mori Junior, R., Franks, D. and Ali, S., 2016. Sustainability certification schemes: evaluating their effectiveness and adaptability. Corporate Governance, 16(3), pp.579-592.

Mst.dk. 2021. Nye tal for madaffald på tværs i sektorer. [online] Available at: <a href="https://mst.dk/service/nyheder/nyhedsarkiv/2021/jul/nye-tal-for-madaffald-paa-tvaers-i-sektorer">https://mst.dk/service/nyheder/nyhedsarkiv/2021/jul/nye-tal-for-madaffald-paa-tvaers-i-sektorer</a> [Accessed 29 December 2021].

Nielsen, J., 2020. Der er næppe store CO2-gevinster fra regeringens nye teknologier i 2030. [online] Information. Available at: <a href="https://www.information.dk/indland/2020/09/naeppe-store-co2-gevinster-regeringens-nye-teknologier-2030?fbclid=lwAR1yv26f7TEyljmoboj7BujbWXxrwSzILjqiFSD\_TUHYeE-b5gY0fEd87pw">https://www.information.dk/indland/2020/09/naeppe-store-co2-gevinster-regeringens-nye-teknologier-2030?fbclid=lwAR1yv26f7TEyljmoboj7BujbWXxrwSzILjqiFSD\_TUHYeE-b5gY0fEd87pw</a> [Accessed 17 December 2021].

NRF, IBM Institute for Business Value & IBM, 2020. Meet the 2020 consumers driving change. Why brands must deliver on omnipresence, agility, and sustainability. [online] IBM. Available at: <a href="https://www.ibm.com/downloads/cas/EXK4XKX8">https://www.ibm.com/downloads/cas/EXK4XKX8</a> [Accessed 26 October 2021].

Oekologisk-spisemaerke.dk. 2021. Om Spisemærket. [online] Available at: <a href="https://www.oekologisk-spisemaerke.dk/om-spisemaerket/">https://www.oekologisk-spisemaerke.dk/om-spisemaerket/</a> [Accessed 23 November 2021].

Otto, O., Antiufeeva, T. and Ovchinnikova, E., 2018. Environmental Certification in Hotel Business as a Factor Ensuring Sustainable Development of the Service Sector. IOP Conference Series: Earth and Environmental Science, 204, p.012035.

Peattie, K. 1992. Green Marketing. Pitman: London

Pérez-Pineda, F., Alcaraz, J. and Colón, C., 2017. Creating sustainable value in the hospitality industry: a (critical) multi-stakeholder study in the Dominican Republic. Journal of Sustainable Tourism, [online] 25(11), pp.1633-1649. Available at: <a href="https://www.tandfonline.com/doi/abs/10.1080/09669582.2017.1297451?journalCode=rsus20">https://www.tandfonline.com/doi/abs/10.1080/09669582.2017.1297451?journalCode=rsus20</a> [Accessed 23 December 2021].

Powell, R.B., & Ham, S.H. (2008). Can ecotourism interpretation really lead to proconservation knowledge, attitudes and behaviour? Evidence from the Galapagos Islands. *Journal of Sustainable Tourism*, *16*(4), 467–489.

Rahman, I., Park, J. and Chi, C., 2015. Consequences of "greenwashing". International Journal of Contemporary Hospitality Management, [online] 27(6), pp.1054-1081. Available at: <a href="https://www.proquest.com/docview/2105052397/fulltextPDF/DADF19F4A1F641C1PQ/1?accountid=8144">https://www.proquest.com/docview/2105052397/fulltextPDF/DADF19F4A1F641C1PQ/1?accountid=8144</a> [Accessed 19 October 2021].

Rahman, I., Park, J. and Chi, C., 2015. Consequences of "greenwashing". International Journal of Contemporary Hospitality Management, 27(6), pp.1054-1081

Rasoolimanesh, S., Ramakrishna, S., Hall, C., Esfandiar, K. and Seyfi, S., 2020. A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. Journal of Sustainable Tourism, pp.1-21.

Refood.dk. 2021. Case - Comwell - Se casen her. [online] Available at: <a href="https://www.refood.dk/cases/comwell">https://www.refood.dk/cases/comwell</a> [Accessed 19 November 2021].

Refood.dk. n.d. Daka ReFood. [online] Available at: <a href="https://www.refood.dk/">https://www.refood.dk/</a> [Accessed 3 December 2021].

Refoodlabel.dk. 2021. REFOOD mærket. [online] Available at: <a href="https://refoodlabel.dk/">https://refoodlabel.dk/</a> [Accessed 19 November 2021].

Regnskabspraksis Baggrund for beregning Klimaregnskab 2019, Sinatur GHG Protocol Opgørelse, 2020; updated 03.10.2020 (Appendix XXX)

Retsinformation. 2021. BEK nr 2159 af 09/12/2020, Miljøministeriet. [online] Available at: <a href="https://www.retsinformation.dk/eli/lta/2020/2159">https://www.retsinformation.dk/eli/lta/2020/2159</a> [Accessed 15 December 2021].

Rodríguez-Antón, J. and Alonso-Almeida, M., 2019. The Circular Economy Strategy in Hospitality: A Multicase Approach. Sustainability, [online] 11(20), p.5665. Available at: <a href="https://www.mdpi.com/2071-1050/11/20/5665">https://www.mdpi.com/2071-1050/11/20/5665</a> [Accessed 19 October 2021].

Rodríguez-Antón, J. and Alonso-Almeida, M., 2019. The Circular Economy Strategy in Hospitality: A Multicase Approach. Sustainability, 11(20), p.5665.

Scriven, M., 1991. Prose and Cons about Goal-Free Evaluation. Evaluation Practice, [online] 12(1), pp.55-62. Available at:

<a href="https://www.sciencedirect.com/science/article/abs/pii/088616339190024R">https://www.sciencedirect.com/science/article/abs/pii/088616339190024R</a> [Accessed 26 October 2021].

Sdgs.un.org. 2021. THE 17 GOALS | Sustainable Development. [online] Available at: <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a> [Accessed 27 October 2021].

Silvia Ayuso (2007) Comparing Voluntary Policy Instruments for Sustainable Tourism: The Experience of the Spanish Hotel Sector, Journal of Sustainable Tourism, 15:2, 144-159, DOI: 10.2167/jost617.0

Sinatur Hotel & Konference, 2019. Færre vareleveringer reducerer miljøbelastning. [online] Available at: <a href="https://www.sinatur.dk/media/2791/faerre-vareleveringer-reducerer-miljoebelastning.pdf">https://www.sinatur.dk/media/2791/faerre-vareleveringer-reducerer-miljoebelastning.pdf</a> [Accessed 23 November 2021].

Sinatur Hotel & Konference, 2020. Sinatur er Danmarks første CO2-neutrale hotelkæde. [online] Available at: <a href="https://www.green-key.dk/nyt/om-overnatningssteder/2020/11/sinatur-er-danmarks-foerste-co2-neutrale-hotelkaede/">https://www.green-key.dk/nyt/om-overnatningssteder/2020/11/sinatur-er-danmarks-foerste-co2-neutrale-hotelkaede/</a> [Accessed 23 November 2021].

Sinatur.dk. 2021. Affaldssortering | Sinatur i dansk top 3 | SINATUR. [online] Available at: <a href="https://www.sinatur.dk/om-sinatur/vores-affaldsortering/">https://www.sinatur.dk/om-sinatur/vores-affaldsortering/</a>> [Accessed 23 November 2021].

Sinatur.dk. 2021. En bæredygtig hoteloplevelse på Sinatur. [online] Available at: <a href="https://www.sinatur.dk/om-sinatur/vores-samfundsambition/">https://www.sinatur.dk/om-sinatur/vores-samfundsambition/</a> [Accessed 22 November 2021].

Sinatur.dk. 2021. Hotel med økologisk holdning | Økologiske råvarer | Sinatur. [online] Available at: <a href="https://www.sinatur.dk/vores-oekologiske-profil/">https://www.sinatur.dk/vores-oekologiske-profil/</a> [Accessed 23 November 2021].

Sinatur.dk. 2021. Medarbejdere og koncept | Hvem er vi egentlig? | SINATUR. [online] Available at: <a href="https://www.sinatur.dk/om-sinatur/hvem-er-vi/">https://www.sinatur.dk/om-sinatur/hvem-er-vi/</a> [Accessed 22 November 2021].

Sinatur.dk. 2021. Mere grøn energi | Reducering af CO2-udslip | SINATUR. [online] Available at: <a href="https://www.sinatur.dk/groen-energi/">https://www.sinatur.dk/groen-energi/</a> [Accessed 26 November 2021].

Sinatur.dk. 2021. Sinatur arbejder med FN's 17 verdensmål. [online] Available at: <a href="https://www.sinatur.dk/om-sinatur/sinatur-og-verdensmaalene/">https://www.sinatur.dk/om-sinatur/sinatur-og-verdensmaalene/</a> [Accessed 23 November 2021].

Sinatur.dk. 2021. Sinatur Hotel & Konference og Den Danske Naturfond. [online] Available at: <a href="https://www.sinatur.dk/den-danske-naturfond/">https://www.sinatur.dk/den-danske-naturfond/</a> [Accessed 29 November 2021].

Sinatur.dk. 2021. Sinaturs madkoncept. [online] Available at: <a href="https://www.sinatur.dk/om-sinatur/vores-madkoncept/">https://www.sinatur.dk/om-sinatur/vores-madkoncept/</a> [Accessed 29 November 2021].

Sinatur-hotels.com. 2021. About us | Sinatur Hoteller. [online] Available at: <a href="https://www.sinatur-hotels.com/about-us/">https://www.sinatur-hotels.com/about-us/</a> [Accessed 22 November 2021].

Smerecnik, K. and Andersen, P., 2011. The diffusion of environmental sustainability innovations in North American hotels and ski resorts. Journal of Sustainable Tourism, [online] 19(2), pp.171-196. Available at:

<a href="https://www.tandfonline.com/doi/abs/10.1080/09669582.2010.517316">https://www.tandfonline.com/doi/abs/10.1080/09669582.2010.517316</a> [Accessed 23 December 2021].

Sorin, F. and Einarsson, S., 2020. Circular Economy in Travel and Tourism. [online] Circulareconomy.europa.eu. Available at:

<a href="https://circulareconomy.europa.eu/platform/sites/default/files/circular-economy-in-travel-and-tourism.pdf">https://circulareconomy.europa.eu/platform/sites/default/files/circular-economy-in-travel-and-tourism.pdf</a> [Accessed 16 December 2021].

Sorin, F. and Sivarajah, U., 2021. Exploring Circular economy in the hospitality industry: empirical evidence from Scandinavian hotel operators. Scandinavian Journal of Hospitality and Tourism, 21(3), pp.265-285.

Sorin, F. and Sivarajah, U., 2021. Exploring Circular economy in the hospitality industry: empirical evidence from Scandinavian hotel operators. Scandinavian Journal of Hospitality and Tourism, 21(3), pp.265-285.

Stabler, MJ. Goodall, B. 1997. Environmental awareness, action, and performance in Guernsey hospitality sector. Tourism Management 18 (1): 19-33

Stahel, W. The circular economy. Nature 531, 435–438 (2016). <a href="https://doiorg.zorac.aub.aau.dk/10.1038/531435a">https://doiorg.zorac.aub.aau.dk/10.1038/531435a</a>

Stark, A.andLevin, E. (2011), Benchmark Study of Environmental and Social Standards in Industrialized Precious Metals Mining, available at:

www.cocoasolidaridad.org/sites/solidaridadnetwork.org/files/Revised%20Solidaridad\_Benchmar k Study Revised Final%20 Dec 2011.pdf

Stefan Gössling, Daniel Scott & C. Michael Hall (2021) Pandemics, tourism and global change: a rapid assessment of COVID-19, Journal of Sustainable Tourism, 29:1, 1-20, DOI: 10.1080/09669582.2020.1758708

Suki Norazah Mohd, Suki Norbayah Mohd(2015) "Consumers' environmental behavior towards staying at a green hotel: Moderation of green hotel knowledge", Management of Environmental Quality: An International Journal, Vol. 26 Issue: 1, pp.103–117, https://doi.org/10.1108/MEQ-02-2014-0023

Sunlu U. 2003, p. 263-270 Environmental impacts of tourism. In: Camarda D. (ed.), Grassini L. (ed.). Local resources and global trades: Environments and agriculture in the Mediterranean region. CIHEAM (Options Méditerranéennes: Série A. Séminaires Méditerranéens; n. 57) [online] Available at: <a href="https://om.ciheam.org/om/pdf/a57/04001977.pdf">https://om.ciheam.org/om/pdf/a57/04001977.pdf</a> [Accessed 19 October 2021].

SUSTAINABLE BRAND INDEX REPORT 2021. 2021. *Denmark* — *SUSTAINABLE BRAND INDEX*. [online] Available at: <a href="https://www.sb-index.com/denmark">https://www.sb-index.com/denmark</a>> [Accessed 23 December 2021].

The Interaction Design Foundation. 2021. 5 Stages in the Design Thinking Process. <a href="https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process">https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process</a> [Accessed 26th October 2021].

Theworldcounts.com. n.d. The World Counts. [online] Available at: <a href="https://www.theworldcounts.com/challenges/consumption/transport-and-tourism/negative-environmental-impacts-of-tourism/story">https://www.theworldcounts.com/challenges/consumption/transport-and-tourism/negative-environmental-impacts-of-tourism/story</a> [Accessed 19 October 2021].

Thomas, D., 2006. A General Inductive Approach for Analyzing Qualitative Evaluation Data. American Journal of Evaluation, [online] 27(2), pp.237-246. Available at: <a href="https://www.researchgate.net/profile/David-Thomas-57/publication/228620846\_A\_General\_Inductive\_Approach\_for\_Qualitative\_Data\_Analysis/links/0f31753b32a98e30f9000000/A-General-Inductive-Approach-for-Qualitative-Data-Analysis.pdf>[Accessed 26 October 2021].

Timmermans, F. (2019). Foreword. In L. Meuleman (Ed.), Metagovernance for sustainability: A framework for implementing the sustainable development goals. Routledge.

Trivago Business Blog. 2019. Sustainable Hospitality: Eco-Friendly Industry Trends and Tips. [online] Available at: <a href="https://businessblog.trivago.com/sustainable-hospitality-trends-eco-friendly-hotel-tips/">https://businessblog.trivago.com/sustainable-hospitality-trends-eco-friendly-hotel-tips/</a> [Accessed 20 October 2021].

United Nations Sustainable Development. n.d. Goal 1: End poverty in all its forms everywhere - United Nations Sustainable Development. [online] Available at: <a href="https://www.un.org/sustainabledevelopment/poverty/">https://www.un.org/sustainabledevelopment/poverty/</a> [Accessed 23 December 2021].

UNWTO, 2015. Tourism and the Sustainable Development Goals. [online] Available at: <a href="https://www.unwto.org/archive/global/publication/tourism-and-sustainable-development-goals">https://www.unwto.org/archive/global/publication/tourism-and-sustainable-development-goals</a> [Accessed 28 December 2021].

Unwto.org. 2021. Tourism in the 2030 Agenda | UNWTO. [online] Available at: <a href="https://www.unwto.org/tourism-in-2030-agenda">https://www.unwto.org/tourism-in-2030-agenda</a> [Accessed 28 October 2021].

Vartan, S., 2021. Everything You Need to Know About Sustainable Certifications. [online] Treehugger. Available at: <a href="https://www.treehugger.com/the-treehugger-guide-to-sustainable-certifications-5119483">https://www.treehugger.com/the-treehugger-guide-to-sustainable-certifications-5119483</a> [Accessed 26 October 2021].

VisitDenmark. 2020. Hvert femte hotel i Danmark er grønt. [online] Available at: <a href="https://www.visitdenmark.dk/corporate/om-os/nyheder/hvert-femte-hotel-i-danmark-ergroent">https://www.visitdenmark.dk/corporate/om-os/nyheder/hvert-femte-hotel-i-danmark-ergroent</a> [Accessed 23 September 2021].

Williams, A. and Montanari, A. 1999. Sustainability and self-regulation: Critical perspectives. Tourism Geographies, 1(1): 26–40.

Wilmoth Lerner, A., 2011. Environmental encyclopedia. 4th ed. Detroit: Gale, a Cengage Company, pp.804-806.

Wind, A. and Korsgaard, K., 2020. Her er hovedbudskaberne fra Frederiksens og Ellemanns taler til Dansk Erhverv. [online] Altinget.dk. Available at: <a href="https://www.altinget.dk/artikel/live-mette-frederiksen-og-jakob-ellemann-jensen-taler-til-dansk-erhvervs-aarsdag?fbclid=lwAR0OG3D3nu4iBWYgpSCw\_-8ZIPicsPQpWE8IaW-86werBTrX2PsbDRejlbE> [Accessed 17 December 2021].

Wonderful Copenhagen. 2020. Tourism for good. [online] Available at: <a href="https://www.wonderfulcopenhagen.com/sites/wonderfulcopenhagen.com/files/2019-05/tourismforgood.pdf">https://www.wonderfulcopenhagen.com/sites/wonderfulcopenhagen.com/files/2019-05/tourismforgood.pdf</a> [Accessed 19 October 2021].

World Commission on Environment and Development., 1987. Our common future. [online] Available at: <a href="http://un-documents.net/ocf-02.htm">http://un-documents.net/ocf-02.htm</a> [Accessed 28 December 2021].

WTTC, 2021. Travel & Tourism Economic Impact 2021. [online] Available at: <a href="https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf">https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf</a> [Accessed 1 December 2021].

Wyndham Worldwide., 2011. Sustainability Report July 2011. [online] Available at: <a href="https://wyndhamworldwide.com/sites/pdfs/green/Final-Wyndham-Sustainability-Report-July-2011.pdf">https://wyndhamworldwide.com/sites/pdfs/green/Final-Wyndham-Sustainability-Report-July-2011.pdf</a> [Accessed 28 December 2021].

Young, S., Zhe, Y. and Dias, G. (2013), "Prospects for sustainability certification of metals".

Ørestad. n.d. Green Energy Solutions. [online] Available at: <a href="https://orsted.com/en/our-business">https://orsted.com/en/our-business</a> [Accessed 6 December 2021].

Åberg, A., 2021. What is COP26 and why is it important? [online] Chatham House – International Affairs Think Tank. Available at: <a href="https://www.chathamhouse.org/2021/09/what-cop26-and-why-it-">https://www.chathamhouse.org/2021/09/what-cop26-and-why-it-</a>

important?gclid=CjwKCAiAhreNBhAYEiwAFGGKPHosM94hvjvO9\_iF9pFsyeDQrrvk7dUyR\_Ez8SSc-QhJa7WmkBP-BhoCe-wQAvD\_BwE> [Accessed 6 December 2021].